I. Roll
( ) Alberta Harder (FS)
( ) Soren Orley (FS)
( ) Francisco Miranda (CAS, Chair)
( ) Barbara Harville (CAS)
( ) Mari Ippolito (CAS)
( ) Len Smiley (CAS)
( ) Dave Fitzgerald (CBPP)
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( ) Utpal Dutta (SOE)
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( ) Sheri Denison (Mat-su)
( ) Kathrynn Hollis Buchanan (Kod)
( ) Kevin Keating (LIB)

Ex-Officio Members
( ) Susan Kalina
( ) Lora Volden
( ) Scheduling and Publications

II. Approval of the Agenda (pg. 1-4)

III. Approval of Meeting Summary (pg. 5-9)

IV. Administrative Report
A. Vice Provost for Undergraduate Academic Affairs Susan Kalina
B. University Registrar Lora Volden

V. Chair’s Report
A. UAB Chair- Francisco Miranda
B. GERC

VI. New Business
A. Elect 2014-15 UAB Chair
B. Curriculum Handbook Changes from AAC (pg. 10-213)
C. Subcommittee Updates

VII. Program/Course Action Request- Second Readings
Add BIOL A108 Principles and Methods in Biology (6 cr)(3+9)(pg. 214-216)
Chg BIOL A365 Astrobiology (GER)(cross-listed w/ ASTR A365)(3 cr)(3+0)(pg. 217-221)
Chg ASTR A365 Astrobiology (GER)(cross-listed w/BIOL A365)(3 cr)(3+0)(pg. 222-226)
Add BIOL A417 Exercise Physiology (3 cr)(3+0)(pg. 227-230)
Add AKNS A218A Alaska Native Drummaking Techniques: Athabascan and Southeast Style
(Cross listed w/MUS A218A)(3 cr)(1+2)(pg. 231-234)
Add MUS A218A Alaska Native Drummaking Techniques: Athabascan and Southeast Style
(Cross listed w/AKNS A218A)(3 cr)(1+2)(pg. 235-238)
Add AKNS A218B Alaska Native Drummaking Techniques: Inupiaq and Yup’ik Style
(Cross listed w/MUS A218)(3 cr)(1+2)(pg. 239-242)
Add MUS A218B Alaska Native Drummaking Techniques: Inupiaq and Yup’ik Style
(Cross listed w/AKNS A218B)(3 cr)(1+2)(pg. 243-246)

**VIII. Program/Course Action Request- First Readings**

Add AKNS A230 Oral Traditions of Alaska Native People (3 cr)(3+0)(pg. 247-251)

Chg DNCE A170 Dance Appreciation (GER)(3 cr)(3+0)(pg. 252-257)

Add THR A132 Introduction to Theatrical Design (3 cr)(2+2)(pg. 258-261)

Chg THR A141 Stagecraft I (3 cr)(2+2)(pg. 262-265)

Chg THR A243 Scene Design (3 cr)(3+0)(pg. 266-269)

Chg THR A257 Costume Design (3 cr)(3+0)(pg. 270-273)

Chg THR A321 Meisner Acting Technique (3 cr)(2+3)(pg. 274-277)

Chg THR A325 Theatre Speech and Dialects (3 cr)(3+0)(pg. 278-281)

Chg THR A328 Acting Shakespeare (3 cr)(2+3)(pg. 282-285)

Chg THR A347 Lighting Design (3 cr)(3+0)(pg. 286-289)

Chg THR A357 Costume Construction (3 cr)(1+4)(pg. 290-293)

Add THR A450 Resume & Portfolio Workshop (1 cr)(1+2)(pg. 294-298)

Chg THR A490 Selected Topics in Performance (3 cr)(2+2)(pg. 299-301)

Chg THR A495 Advanced Practicum: Technical (1-3 cr)(0+3-9)(pg. 302-305)

Chg BA, Theatre and Dance (pg. 306-318)

Add JPN A490 Selected Topics: Studies in Japanese Literature and Culture
(3 cr)(3+0)(pg. 319-323)

Chg SPAN A320 Studies in Contemporary Hispanic Cultures (3 cr)(3+0)(pg. 324-331)

Chg BA, Mathematics (pg. 332-333)

Chg BS, Mathematics (pg. 334-346)

Chg ENGL A109 Introduction to Writing in Academic Contexts (3 cr)(3+0)(pg. 347-353)

Chg CE A405 Transportation Engineering I (3 cr)(3+0)(pg. 354-358)

Chg CE A406 Transportation Engineering II (3 cr)(3+0)(pg. 359-363)

Chg Post-Bac Certificate, Elementary Education (pg. 364-373)

Add BIOL A442 Experiential Learning: Animal Behavior (3 cr)(1+4)(pg. 374-377)

Chg BIOL A451 Microbial Biotechnology (3 cr)(3+0)(pg. 378-381)

Add BIOL A453 Experiential Learning: Microbial Ecology (4 cr)(2+4)(pg. 382-386)
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<td>AAS, Architectural and Engineering Technology (pg. 525-526)</td>
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<td>UC, Mechanical and Electrical Drafting (pg. 533-534)</td>
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IX. Old Business

X. Informational Items and Adjournment
   A. CAS Program Student Learning Outcomes (pg. 535-537)
I. Roll
(x) Alberta Harder (FS) (e) Dave Fitzgerald (CBPP) (x) Michael Hawfield (KPC)
(x) Soren Orley (FS) (x) Eileen Weatherby (COH) (x) Sheri Denison (Mat-su)
(x) Francisco Miranda (CAS, Chair) (x) Irasema Ortega (COE) (x) Kathryn Hollis Buchanan (Kod)
(x) Barbara Harville (CAS) (x) Cheryl Smith (CTC) (x) Christina Stuive (ADV)
(x) Mari Ippolito (CAS) (x) Utpal Dutta (SOE) (x) Kevin Keating (LIB)
(x) Len Smiley (CAS)
Ex-Officio Members
(x) Susan Kalina
(x) Lora Volden
(x) Scheduling and Publications

II. Approval of the Agenda (pg. 1-4)
Approved

III. Approval of Meeting Summary (pg. 5-7)
Approved

IV. Administrative Report
A. Vice Provost for Undergraduate Academic Affairs Susan Kalina
No Report

B. University Registrar Lora Volden
Requested the board to approve the PHYS change under new business

V. Chair’s Report
A. UAB Chair- Francisco Miranda
New chair will be elected during the April 25th meeting

B. GERC

VI. Program/Course Action Request- Second Readings
Chg Associate of Applied Science, Nursing (pg. 8-14)
Unanimously Approved
Add URS A121 Methods of Inquiry (GER)(3 cr)(2+2)(pg. 15-20)
10 In Favor
2 Opposed
Approved

Chg CSCE A222 Object-Oriented Programming I (3 cr)(3+0)(pg. 21-26)
10 In Favor
1 Opposed
Approved

VII. Program/Course Action Request- First Readings
Add AKNS A230 Oral Traditions of Alaska Native People (3 cr)(3+0)(pg. 27-31)
No initiator present
Chg  BIOL A288  Principles of Evolution (3 cr)(3+0)(pg. 32-36)
Waive first reading, approve for second

Chg  BIOL A298  Individual Research (1-6 cr)(0+3-18)(pg. 37-39)
Waive first reading, approve for second

Chg  BIOL A310  Principles of Animal Physiology (3 cr)(3+0)(pg. 40-43)
Waive first reading, approve for second

Chg  BIOL A316  Principles of Plant Physiology (3 cr)(3+0)(pg. 44-47)
Waive first reading, approve for second

Add  BIOL A320  Vertebrate Biology (3 cr)(3+0)(pg. 48-51)
Waive first reading, approve for second

Add  BIOL A321  Experiential Learning: Vertebrate Biology (2 cr)(1+2)(pg. 52-55)
Waive first reading, approve for second

Add  BIOL A330  Plant Biology (3 cr)((3+0)(pg. 56-59)
Waive first reading, approve for second

Add  BIOL A332  Experiential Learning: Plant Biology (2 cr)(1+2)(pg. 60-64)
Waive first reading, approve for second

Del  BIOL A333  Biology of Non-Vascular Plants (4 cr)(3+3)(pg. 65)
Waive first reading, approve for second

Del  BIOL A334  Biology of Vascular Plants (4 cr)(3+3)(pg. 66)
Waive first reading, approve for second

Chg  BIOL A340  Microbial Biology (3 cr)(3+0)(pg. 67-69)
Waive first reading, approve for second

Add  BIOL A342  Experiential Learning: Microbial Biology (4 cr)(2+4)(pg. 70-73)
Waive first reading, approve for second

Chg  BIOL A365  Astrobiology (GER)(cross-listed w/ ASTR A365)(3 cr)(3+0)(pg. 74-78)
Accepted for first reading

Chg  ASTR A365  Astrobiology (GER)(cross-listed w/BIOL A365)(3 cr)(3+0)(pg. 79-83)
Accepted for first reading

Chg  BIOL A403  Experiential Learning: Microscopical Tissue Techniques (6 cr)(3+9)(pg. 84-90)
Waive first reading, approve for second

Add  BIOL A406  Experiential Learning: Biostatistics (4 cr)(2+4)(pg. 91-94)
Waive first reading, approve for second

Add  BIOL A408  Experiential Learning: Scanning Electron Microscopy (SEM) (6 cr)(3+9)(pg. 95-102)
Waive first reading, approve for second

Add  BIOL A412  Behavioral Endocrinology (3 cr)(3+0)(pg. 103-106)
Waive first reading, approve for second

Add  BIOL A413  Neurophysiology (3 cr)(3+0)(pg. 107-111)
Waive first reading, approve for second
Add BIOL A414 Chronobiology (3 cr)(3+0)(pg. 112-115)
Waive first reading, approve for second

Add BIOL A417 Exercise Physiology (3 cr)(3+0)(pg. 116-119)
Accepted for first reading

Add BIOL A418 Fish Physiology (3 cr)(3+0)(pg. 120-123)
Waive first reading, approve for second

Chg BIOL A423 Ichthyology (3 cr)(3+0)(pg. 124-127)
Waive first reading, approve for second

Del BIOL A425 Mammalogy (4 cr)(3+0)(pg. 128)
Waive first reading, approve for second

Del BIOL A426 Ornithology (4 cr)(3+0)(pg. 129)
Waive first reading, approve for second

Chg BIOL A427 Marine Invertebrate Biology (3 cr)(3+0)(pg. 130-133)
Waive first reading, approve for second

Chg BIOL A430 Marine Mammals and Seabirds (3 cr)(3+0)(pg. 134-137)
Waive first reading, approve for second

Chg BIOL A431 Plant Diversity and Evolution (3 cr)(3+0)(pg. 138-142)
Waive first reading, approve for second

Chg BIOL A441 Animal Behavior (3 cr)(3+0)(pg. 143-147)
Waive first reading, approve for second

Add BIOL A442 Experiential Learning: Animal Behavior (3 cr)(1+4)(pg. 148-151)

Chg BIOL A451 Microbial Biotechnology (3 cr)(3+0)(pg. 152-155)


Add BIOL A454 Experiential Learning: Microbial Biotechnology (4 cr)(2+4)(pg. 161-165)

Add BIOL A455 Experiential Learning: Bioinformatics (4 cr)(2+4)(pg. 166-171)

Add BIOL A463 Molecular Biology of Cancer (3 cr)(3+0)(pg. 172-175)

Add BIOL A464 Metals in Biology (3 cr)(3+0)(pg. 176-180)

Chg BIOL A471 Immunology (Crosslisted with CHEM A471)(3 cr)(3+0)(pg. 181-186)

Chg CHEM A471 Immunology (Crosslisted with BIOL A471)(3 cr)(3+0)(pg. 187-192)

Chg BIOL A472 Biogeography (3 cr)(3+0)(pg. 193-196)

Chg BIOL A473 Conservation Biology (GER)(3 cr)(3+0)(pg. 197-201)

Add BIOL A474 Ecotoxicology (3 cr)(3+0)(pg. 202-205)

Add BIOL A476 Wildlife Population Dynamics and Management (3 cr)(3+0)(pg. 206-210)

Add BIOL A480 Ecological and Conservation Genetics (3 cr)(3+0)(pg. 211-215)
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VIII. Old Business

IX. New Business
   A. Physics Automatic Prerequisite Checking Memo (pg. 378)
      \textit{The UAB unanimously approves the prerequisite change for Physics.}
   B. Curriculum Handbook Changes from AAC (pg. 379-582)

X. Informational Items and Adjournment
   A.
The
University of Alaska Anchorage
Curriculum Handbook
for
Faculty

Revised June 2013
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<td>Board of Regents</td>
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Section 1 - Introduction

1.1 Academic Boards of the Faculty Senate Principles of Operation

- Excellence in teaching, learning, and research is the indispensable core value of the University of Alaska Anchorage (UAA) mission, goals and activities. The Graduate Academic Board (GAB) and the Undergraduate Academic Board (UAB) of the Faculty Senate are the principal peer review committees charged to guide the University’s curricular processes.

- The university evaluates its achievements against appropriate regional, national, and international benchmarks. The academic boards devise evidence-based methods for the curriculum approval. The Curriculum Handbook is periodically revised to reflect policy and procedural changes.

- The academic boards are charged to identify areas for improvement, foster collaboration, and encourage an ethos of critical self-evaluation for all curriculum.

- The work of the academic boards is part of the normal and continuous cycle of curricular planning, monitoring, and improvement. It is emphasized that although the curricular products of the faculty reviewed and approved by the board are useful for purposes of external review, they are primarily intended to promote and maintain excellence in teaching, learning, and research.

These Guidelines in the Curriculum Handbook describe the University of Alaska Anchorage’s process for approving all academic coursework developments. These guidelines should be used in conjunction with departmental requirements as appropriate.

Basis for Academic Board Review

Academic board approval is required for the following:

1. New permanent courses that will appear on the student’s transcript with academic credit.

2. New departmental programs such as:

   A. Undergraduate programs
      i. Occupational Endorsement Certificates
      ii. Undergraduate Certificates
      iii. Associate Degrees
      iv. Baccalaureate Degrees
      v. Minors

   B. Post-baccalaureate Certificates

   C. Graduate programs
      i. Graduate Certificates
      ii. Graduate Degrees

The maximum number of credits that may be required by a degree or certificate program will be for each level (BOR Policy and Regulation 10.04.030):

- Occupational Endorsement Certificates: 29 credits
- Certificate: 60 credits
- Associate Degree: 75 credits
- Bachelor's Degree: 132 credits
- Minors: No maximum
- Master's Degree: 45 credits
- Graduate Certificate: 29 credits
3. New policies or revisions to existing policies that affect the method of approval, content, or delivery of university courses or programs.

4. Substantial revision to the academic content of a course including
   A. Additions, modifications or deletions of major subject areas
   B. Any course that has not been offered at least once during the past 4 years (i.e., Course on a purge list that the discipline informs the Board it intends to deliver. See section 5.3 for additional information).

5. Changes having an impact on the study options available to prospective students, including changes to
   A. Selection/admission procedures and standards
   B. Prerequisites, co-requisites, and registration restrictions.

6. Changes responding to the professions, employers, or the wider community.

7. Changes made to maintain the currency and vitality of the curriculum. It is recommended that no individual course be allowed to age more than 10 years without review and update by the program faculty. However, it is understood that all programs will differ with respect to the frequency of need for update and/or revisions.
Section 2 - Curriculum Screening Criteria

2.1 Issues in Curriculum Review

2.1.1 Curriculum Review

A request for a curriculum change should be reviewed for format, content, and the impact it has on the entire curriculum and general direction of the school or college in relation to the university. Curriculum review bodies are asked to review any change carefully with respect to the program initiating the change and to other academic programs.

At any time a curriculum change is brought before a review body, the program or course will be reviewed in total as outlined in this handbook.

If a Course Action Request (CAR) for a credit-bearing course, program, or policy is submitted for processing and that CAR has been disapproved at any level prior to UAB/GAB review, then that particular curricular action is placed on the agenda of UAB/GAB for review and recommendation.

Pertinent academic considerations:

A. Course or program is designed with the appropriate content and student learning outcomes, with learning experiences that enable students to achieve the stated learning outcomes, and with evaluation methods that enable faculty to assess student achievement of those learning outcomes.

B. Justification for the change

C. Effect on resources within the program

D. Frequency of course offerings for new programs. Note: Deans/Directors may require this information for new courses.

E. Impact on other affected UAA programs and courses

F. Implementation Dates must be in line with catalog and scheduling deadlines.

2.1.2 Academic Considerations Addressed in Review

The faculty member initiating the curriculum action should be prepared to address the following and any other appropriate issues that members of the curriculum review committees may ask when the curriculum action is presented to the appropriate boards/committees at each level of review.

A. Academic considerations for a new course proposal:

i. School/college offering this course is the appropriate academic unit

ii. Appropriate prerequisites for content and level

iii. Availability of prerequisites for this course

iv. Frequency of scheduling of course

v. Justification for stacking or cross listing

vi. Duplication with any other existing courses is explained

vii. Documented coordination with the impacted/affected departments

viii. Identifiable accreditation or nationally accepted practice standards

ix. Rationale for requiring this course in a program

x. If a new prefix is requested, the prefix must be approved prior to developing the curriculum

B. Courses that will become program electives/selectives:

i. Effect of this course on other electives/selectives

ii. Enhancement of a program by this course

iii. Increase in options for specialization within the major

iv. Effect on scheduling of other program electives

C. Courses that will become General Education Requirements (GERs):
i. Addresses GER student learning outcomes from the GER Preamble
ii. Meets category definition from Board of Regents Regulation (www.alaska.edu/bor/policy-regulations/)
iii. Addresses and assesses GER student learning outcomes for the classification descriptions described in the catalog (www.uaa.alaska.edu/records/catalogs/catalogs.cfm) and this handbook
iv. Provides rationale for adding this course to the GER menu

D. Resource implication considerations for new course proposals:
   i. Commitment from resource manager to support course offerings
   ii. Effects on other offerings within a program or school
   iii. Effect on offering other required courses
   iv. Effect on electives and selectives
   v. If the course was offered as a trial course, the number of times it was offered and the number of enrollments

2.1.3 Review of Program Proposals
   A. Program description adequately expresses the program characteristics, requirements and student learning outcomes.
   B. The proposing unit is clearly prepared to present the program based on available faculty numbers and expertise, support staff, fiscal resources, facilities and equipment.
   C. Needs analysis for the new program is attached.
   D. Coordination has occurred with appropriate departments, schools, and colleges and documentation is submitted to the Governance Office.
   E. Possible duplication of an existing program is addressed.
   F. All courses used in the creation or modification of a degree or certificate program have current Course Content Guides on file in the Office of the Registrar. These must contain all of the required elements described in Section 9 of this handbook. If courses are ill-defined or outdated they must be revised at the same time or before the program addition or modification is proposed.
   G. When proposing multiple certificates in a given discipline their requirements must differ by at least 6 credits. Otherwise the program should be proposed as a single certificate with emphasis areas.

2.1.4 Program Student Learning Outcomes
   A. Program Student Learning Outcomes are to be clearly stated as the knowledge or abilities that students are expected to demonstrate upon successful completion of the program.
   B. Program Student Learning Outcomes and a plan for their assessment are to be developed in accordance with the guidance and requirements found in the Academic Assessment Handbook (http://www.uaa.alaska.edu/governance/academic_assessment_committee/handbook.cfm).
   C. Program Student Learning Outcomes are to be published in the catalog for student use in evaluating and selecting their academic program.
   D. Programs whose external accreditors require program objectives should state these clearly as the knowledge or abilities that students are expected to demonstrate after completion of the program.
   E. A complete and valid Academic Assessment Plan must be emailed to the Academic Assessment Committee at ayaac@uaa.alaska.edu in accordance with the requirements of the Academic Assessment Handbook. Note: Academic boards do not evaluate the Program Student Learning Outcomes or Academic Assessment Plan; however the Academic Assessment Plan must be complete, approved through the Dean, and submitted to ayaac@uaa.alaska.edu for review by the Academic Assessment Committee when a new program is submitted to the academic boards. Following AAC review of the Academic Assessment Plan, an informational item is sent to the Faculty Senate.
   F. If this action requires BOR review, see Regents’ Policy and Regulation (www.alaska.edu/bor/policy-regulations/).
G. If this action requires notifying the Commission on Colleges refer to their website at www.nwccu.org.
Section 3 - Curriculum Approval Process
for Courses, Programs and Prefixes

Any new degree program, and/or new course required for a degree program, wherever initiated within UAA, requires approval by UAB/GAB. Programs include certificates and occupational endorsements; associate, baccalaureate, post-baccalaureate, and graduate degrees; Minors; and regional studies. Non-credit courses, CEU courses, and Workforce Credential programs are not reviewed or approved by UAB/GAB as indicated in the curriculum approval process below.

3.1 Curriculum Approval Process

1. Except as noted in sections 3.2 and 3.3, all courses, programs (with the exception of doctoral programs), and prefixes follow the approval process presented in this section. The approval process for doctoral programs is found in section 3.8.

2. Curriculum must be initiated by a faculty member, reviewed by the department’s curriculum committee/chair, the school/college curriculum committee, and finally the dean/director of the school/college.

3. The term “faculty initiator” will use the definition of faculty from the Faculty Senate Constitution (http://www.uaa.alaska.edu/governance/facultysenate/constitution.cfm) except in the special cases listed.

Special cases: There may be special circumstances where a program has no tenure-track or term faculty. In these cases, an adjunct faculty member who has been approved to teach a course or has special expertise in the content area of the program may initiate course and program curriculum changes under the sponsorship of a tenure-track or term faculty member as defined above. It is recommended that the initiating faculty member and the faculty sponsor sign the CAR/PAR.

New programs must be initiated by tenure-track or term faculty as defined in the Faculty Senate Constitution. An adjunct faculty member who has expertise in the area may be consulted by the faculty initiator(s).

4. All templates are available on the Governance website at www.uaa.alaska.edu/governance. Faculty initiators should ensure that documents are prepared using Microsoft Word. Course proposals must be submitted using the CAR, and program/prefix proposals must be submitted using the PAR.

5. Proposers of any curriculum action should refer initial questions to their discipline-specific curriculum committees. Further assistance may be sought from college curriculum committees, and in the last resort the Governance Office, to ensure the proposal is considered in a timely fashion.

6. Coordination should take place early in the curriculum process. Steps for coordination are found in sections 4, 5, 6, and 7 depending on the curriculum action under consideration.

7. The faculty initiator is responsible for the development of the required documents outlined in sections 4, 5, 6, and 7 and submission to the appropriate organizations. It is strongly recommended that the faculty initiator consult with Scheduling and Publications in the Registrar’s office when developing the CAR and PAR documents as outlined sections 10 and 11 of this handbook. Assistance with developing the CCG can be obtained from the school’s representatives on the academic boards, from the college curriculum committee, and section 9 of this handbook.

8. Curriculum proposals are reviewed by the college/school curriculum committee. The committee chair signs the CAR following the committee’s review.

9. A hard copy of the proposal is forwarded to the appropriate dean/director for review.

10. Following review, the dean/director signs the CAR and a hard copy of the curriculum proposal is forwarded to the Governance Office along with an electronic version in Microsoft Word format of the full proposal. Note: The Governance Office will accept electronic signed CARs as long as all signatures up to the Dean/Director level are present and legible and the approved or disapproved boxes are checked.
• The Governance Office forwards noncredit, continuing education unit (CEU), -93s, -94s, and 500-level courses to the Office of the Registrar to be entered into the system.

• The Governance Office forwards Workforce Credential proposals to OAA for review and approval.

• Courses and programs to be published in the catalog, and prefix requests, are sent to UAB/GAB for review.

11. Any items needing UAB/GAB review must be received in the Governance Office by 9 a.m. Monday in order to be on the agenda for the Friday meeting of the same week. Initiating faculty member or faculty representative must present courses, programs and prefixes to UAB/GAB. Representatives should be prepared to answer all relevant questions as described in 2.1.2 or the proposal will be tabled. OAA will consult with initiating faculty during the review of Workforce Credentials.

12. After appropriate reviews are complete, the course, program or prefix appears in the next catalog or schedule for which the publication deadline was met, unless a later implementation date has been approved. See below for more information on implementation dates and deadlines for inclusion in the catalog. Note: meeting these deadlines does not guarantee all approvals can be obtained in time for inclusion in the next catalog.

New programs may have an implementation date of summer, fall, or spring. For new programs to be included in the catalog, first reading by the boards should be no later than the first meeting in January (See the UAA Curriculum and Catalog Production Calendar located on the Governance website [www.uaa.alaska.edu/governance](http://www.uaa.alaska.edu/governance) for current dates.

Existing programs with changes must have an implementation date of fall so that correct curriculum is in effect in current catalog. Changes to programs must be initiated with enough time to reach final approval prior to submission of catalog for printing (Recommend first reading no later than first meeting in March).

New courses may have an implementation date of summer, fall, or spring. Changes to existing courses may not be implemented for a term once registration has opened, implementation dates must be chosen for a future term. Note: course changes related to program changes must have an implementation date of fall. In order to have approval prior to fall registration opening, it is suggested that first reading take place no later than the first week in February.

13. After the final reading by UAB/GAB, the initiating faculty member is responsible for the preparation of the corrected final documents and submission to the Governance Office before UAA Faculty Senate takes action.

14. The Governance Office prepares the UAB/GAB reports for the UAA Faculty Senate. The Senate then reviews and acts on the proposed courses and prefixes.

15. OAA reports decisions regarding Workforce Credential proposals to the Faculty Senate through the Governance Office and to the BOR through SAC.

16. UAB/GAB chair signs CAR/PAR documents after approval by the Faculty Senate.

17. The Vice Provost for Undergraduate Academic Affairs reviews and acts on undergraduate courses and undergraduate and post-baccalaureate programs. The Vice Provost for Research and Graduate Studies reviews and acts on graduate courses and programs. The two Vice Provosts collaborate on the approval of prefixes.

18. New programs and programs with major changes (with the exception of Minors, Occupational Endorsements and Workforce Credentials) require approval through the BOR. After approval by the Faculty Senate, OAA works with the faculty initiator to prepare and submit the necessary documents (see section 7.3).

19. After approval by the Faculty Senate, the Vice Provost for Undergraduate Academic Affairs works with faculty initiators for Minors, Occupational Endorsements and Workforce Credentials to obtain approval as required from OAA and the Chancellor’s office and to prepared documents notifying NWCCU of the curriculum actions. Note: Workforce Credentials do not require Faculty Senate approval.
20. All new programs and programs with major changes require approval through the NWCCU. After approval by the BOR, OAA works with the faculty initiator to prepare and submit the necessary documents (see section 7.3). The appropriate Vice Provost approves new programs and programs with major changes only after approval is received from the NWCCU.

21. After final approvals are obtained from the Chancellor, Regents, and/or the NWCCU. After the appropriate Vice Provost approves the curriculum and returns the folders to the Governance Office. The Governance Office sends the approved courses, programs and prefixes to the Office of the Registrar.

22. New certificate programs may require an additional review and approval by the US Department of Education (US DoE) before admitted students are eligible for federal financial aid. This review is initiated by the UAA Director of Student Financial Aid after BOR approval of the program. US DoE approval usually occurs within 90 days of submission.

This approval process is depicted in Figures 3.1, 3.2, 3.3, and 3.4 for specific types of courses, programs, and prefixes.

### 3.2 Approval for Minor Changes to Undergraduate Credit Courses

#### 3.2.1 All Undergraduate Credit Courses Numbered 050 – 499

1. If a course title change is proposed by the prefix (initiating) department, and approved through the regular curriculum process, then the course title will be automatically changed wherever the course title appears in the catalog.
   
   The initiating department is required to coordinate with all impacted departments, using Box 13a of the CAR, and an additional spreadsheet, if necessary. e.g., ENGL A450 required in English for Speakers of Other Languages (ESOL) 7-12 Concentration (Graduate program in COE).

2. If prerequisites within the prefix department are changed in 050-499 courses, the initiating department must complete a CAR to be approved through the regular curriculum process. No Course Content Guide will be required so long as the course has been updated within the past 4 years.
   
   The initiating department is required to coordinate with all impacted departments. The impacted departments must be listed in Box 13a of the CAR, with an additional spreadsheet, if necessary.

3. If registration restrictions within the prefix department are changed in 050-499 courses, the initiating department must complete a Course Action Request (CAR) to be approved through the regular curriculum process. No Course Content Guide (CCG) will be required so long as the course has been updated within the past 4 years. The initiating department is required to coordinate with all impacted departments. The impacted departments must be listed in Box 13a of the CAR, with an additional spreadsheet, if necessary.

#### 3.2.2 Lower Division Undergraduate Credit Courses Numbered 050 – 299 Only

Minor changes that do not substantially affect the intent or content of lower division courses are handled by the school/college curriculum committee or community campus instructional council. These changes include the following that do not affect the quality of the curriculum:

1. Course number change at the same level
2. Grammatical change in course description
3. Co-requisite changes that only affect the prefix department
4. Fee change
5. Course description change that does not change course intent (e.g., USSR to Russia, Word 2003 to Word 2010)
6. Updating of the bibliography.
The school/college curriculum committee or community campus instructional council is responsible for ensuring that proper coordination has occurred. Upon final approval by the college dean or director, courses with the types of changes listed above are forwarded to the Governance Office for transmittal to the Office of the Registrar.

These course actions are placed on the UAB agenda as informational items. Any UAB member may request that an information item be changed to an action item. No action can be taken on an action item until after it has been placed on the next meeting’s agenda.

### 3.3 Approval of Minor Catalog Changes

The following catalog changes are considered minor changes and do not have to be reviewed by the UAB/GAB. These changes can be implemented by program faculty during the annual catalog copy review processes conducted by the Office of the Registrar.

**Minor Changes:**
1. Contact information, location, and web address
2. General Discipline information
   a. Degree or Certificate program
   b. Overview and career information
   c. Accreditation
   d. Research possibilities
2. Advising
3. Academic Progress Requirements

### 3.4 Approval for substantive changes to courses numbered 050 - 299, for all changes to courses numbered 300 - 499, and for additions or deletions of all academic credit courses.

Additions, deletions, or changes that have a substantive effect on the intent, content or student learning outcomes of any courses numbered 050 to 299 require approval through the established governance process and UAB action as shown at the beginning of this section.

Additions, deletions or changes to any 300- or 400-level course with a permanent number, wherever initiated within UAA, require approval through the established governance process and UAB action as shown at the beginning of this section.

The approval process for these courses is found in section 3.1 and is depicted in Figure 3.1.

### 3.5 Approval of 600-Level Courses

A new or revised 600-level course with a permanent number, wherever initiated within UAA, requires GAB action. School/college curriculum committee or community campus instructional council takes responsibility for the following changes that do not affect the intent and quality of the curriculum:

1. Title change
2. Course number change at the same level
3. Grammatical change in course description
4. Prerequisite change that involves only the prefix department
5. Fee change
6. Course description change that does not change course intent (e.g., USSR to Russia, Word 2003 to Word 2010)
7. Updating of the bibliography

Upon final approval by the college dean or director, courses with the types of changes listed in 1-7 are forwarded to the Governance Office for transmittal to the Office of the Registrar. These course actions are placed on the GAB agenda as informational items. Any GAB member may request that an information item be changed to an action item. No action can be taken on an action item until after it has been approved by the GAB.

The community campus director will work with the appropriate school/college dean to obtain review and approval for offering of a graduate course.

The approval process for 600 level courses is found in section 3.1 and is depicted in Figure 3.1.

3.6 Approval of 500-Level Courses

These courses are offered for professional development credit only. The UAB is responsible for UAA policy associated with 500-level courses.

The appropriate dean/director or designee has authority for initial approval and offering of 500-level courses. Each college offering 500-level courses must have policies and procedures in place that guarantee appropriate faculty review and course quality.

Approved courses are forwarded through the Governance Office to the Office of the Registrar to be entered into the system and are listed in the curriculum log posted on the Governance website (www.uaa.alaska.edu/governance).

The approval process for 500 level courses is found in section 3.1 and is depicted in Figure 3.2.

3.7 Approval of Non Credit Courses Numbered AC000-AC049 or A000-A049 and changes to these courses

These courses are not offered for academic credit. Courses numbered AC000-AC049 earn Continuing Education Units (CEU) and may be used for Workforce Credentials. These courses are approved as indicated in the approval process outlined in section 3.1.

The approval process for non-credit and CEU courses is found in section 3.1 and is depicted in Figure 3.2.

3.8 Approval of Doctoral Programs

The program approval process in section 3.1 is not applicable to doctoral programs.

It is necessary for programs to consult with OAA before starting work on doctoral program proposals. The primary point of contact with OAA is the Vice Provost for Research and Graduate Studies.

The doctoral approval process consists of two stages: A Justification Proposal and a Full Proposal.
Justification Proposal

The Justification Proposal is a relatively brief document that addresses how the proposed doctoral program meets specific criteria important to the process for deciding if the program is viable and needed. This proposal requires that the basic structure of the program be well designed to meet standards that will ensure that the program is likely to be successful. At this stage, the curriculum pieces (PAR, CAR, and CCG) are not to be included. Section 3.8.1 is the Justification Proposal Outline and includes all the criteria for the proposal. The Justification Proposal follows the normal curriculum approval process through the Provost and Chancellor with additional review by the Graduate Council and the Dean of Graduate Studies.

Full Proposal

The Full Proposal is an expansion on the Justification Proposal and includes the curriculum documents. The Full Proposal's main purpose is to demonstrate that the proposed program meets the standards of all applicable accreditation agencies. The program must identify all relevant accreditation standards and demonstrate how the program meets the standards. This document is essentially an accreditation self-study document. As a part of the Full Proposal package, the program will fill out a checklist where they will indicate that certain criteria important to the institution are addressed in the package. If a particular item on the checklist is not included in the accreditation analysis, then the program will be required to include an analysis of how the particular institutional requirement is met. Section 3.8.2 is the Full Proposal Outline and includes all the criteria for the proposal. The Full Proposal follows the normal curriculum approval process through the Provost and Chancellor with additional review by the Graduate Council and the Dean of Graduate Studies. Once approved at UAA the full proposal is forwarded to the UA Board of Regents and the NWCCU by the UAA Office of Academic Affairs.

3.8.1 Justification Proposal

The purpose of this document is to articulate to individuals and groups in the campus curriculum approval process the relevant details of the proposed program so that decisions can be made relative to the viability of the proposed program. The proposal must include the following sections and address the identified issues. Do not include curriculum (i.e., PAR, CARs, and CCGs) documents at this stage.

The justification proposal is be to reviewed and approved, with signatures, by the proposing department, the applicable college or school curriculum committee and Dean, the Graduate Council and Dean of the Graduate School, the Graduate Academic Board, the Faculty Senate, and the Provost.

Prior to approval by the Provost an external review (which may include a site visit if determined to be needed at the justification level) shall be conducted. This review is to focus on need, demand, program quality, and physical resources. The review panel is to consist of three highly qualified individuals from the profession and/or peer institutions in the specific field/discipline of the proposed program. The unit proposing the doctorate recommends potential members of the review panel; however the members of the review panel are selected and appointed by the Provost.

1. Brief Description of the Proposed Doctorate (Maximum of one page, 1.5 spaced and 12 point font)
   (Name, degree initials, proposed by (person, department, college), brief description of the target group of students, brief description of the key characteristics of the degree; mission statement; Key objectives as expressed as learner outcomes-no more than six; mode of offering; relationship to, and impact on, existing programs and courses)

2. Justification of the Proposal on the Basis of Need (Maximum of two pages; include as appendices statements from professional associations etc.)
   (Typical headings include: needs in the profession, needs in the state, needs in terms of training high level leaders, relevance for higher education employment, employment demands)

3. Justification of the Proposal on the Basis of Prospective Student Demand (Maximum of two pages; include as appendices the survey used)
(Typical headings include: General survey details, distribution list, response rate, responses by relevant demographics, 5-year enrollment projection table)

4. **Identify Several Peer Programs (Maximum of one page)**
   (Are there any similar programs at UA, other Alaska universities; describe, and provide web links for, peer programs and name of their universities)

5. **Brief Description of the Entry Requirements (Maximum of one page)**
   (Clearly articulate admissions requirements, such as Degree level, previous professional experience, or other prerequisite requirements. Describe the process for selecting students. Note that each doctoral program is required to have an admissions committee of at least three members.)

6. **Faculty Qualifications (Maximum one page; summarize in a table with 6 columns as below)**
   (Personnel; highest degree; top 5 refereed publications in the last five years; no more than 5 key presentations in the last 5 years; external competitive research grants won in the last 5 years; significant industrial/professional experience in that field in the last 5 years)

7. **Student Services (Maximum of one page)**
   (Indicate advising, office space, scholarships, graduate assistantships, student assistantships, conference attendance)

8. **Facilities and Resources (Maximum of two pages; to be signed by the Dean)**
   (Need for staffing, additional faculty, technicians, additional lab space, additional plant, equipment, technology, consumables, library resources network infrastructure, etc.)

9. **Budget and Cost Analysis (Maximum of one page)**
   (Specific budget proposal; revenue streams; sustainability; up-front costs; ongoing costs; external funding; UA funding)

10. **Identify Relevant Accreditation Agencies and Their Criteria (Maximum of two pages)**
    (NWCCU, State, National, and other professional organizations; provide links to the accreditation's web sites & criteria; How does the program meet basic eligibility and what are the biggest challenges in meeting the criteria.)

11. **Program Catalog Copy**
    (Proposed catalog copy; new course titles, numbers, and descriptions)

3.8.2 **Full Proposal**

This document is used to show how the proposed program meets institutional and accrediting body criteria. The full curriculum (i.e., PAR, CARs, and CCGs) for the program is also to be included. This document is, in essence, an abbreviated self-study showing how the program meets applicable accreditation standards.

The full proposal is to be reviewed and approved, with signatures, by the proposing department, the applicable college or school curriculum committee and Dean, the Graduate Council and Dean of the Graduate School, the Graduate Academic Board, and the Faculty Senate.

Prior to approval by the Provost, the external review panel used in the justification proposal shall do a review of the full proposal and provide comments to the program and Provost.

The Office of Academic Affairs will work with the program to develop a final submittal to SAC, the UA Board of Regents, and the Northwest Commission on Colleges and Universities (NWCCU).

Required Outline:
1. **Introduction and Program Overview**  
   (Name, degree initials, proposed by (person, department, college), brief description of the key characteristics of the degree; mission statement; key objectives expressed as learner outcomes-no more than six)

2. **Program Accrediting Standards (if any)**  
   (Identify accrediting agency with hyperlinks to their standards; an item by item list of the standards and how the program plans to meet them)

3. **NWCCU Accrediting Standards**  
   (an item by item list of criteria and how the program plans to meet the criteria)

4. **Institutional Checklist.**  
   (As a minimum, the Full Proposal must address the following items. It is probable that many of the items are addressed in prior sections of the full proposal, so the requirement of this section is to provide an index to the parts of the proposal that address the indicated concerns. In the event that a specific concern has not been addressed, please provide discussion about how the proposed program addresses the concern. See the Justification Proposal instructions for the type of information required.)
   
   o Justification on the Basis of Need:  
     Found in section ___________________
   
   o Justification on the Basis of Prospective Student Demand:  
     Found in section ___________________
   
   o Identify Several Peer Programs:  
     Found in section ___________________
   
   o Entry Requirements:  
     Found in section ___________________
   
   o Faculty Qualifications:  
     Found in section ___________________
   
   o Student Services:  
     Found in section ___________________
   
   o Facilities and Resources:  
     Found in section ___________________
   
   o Budget and Cost Analysis:  
     Found in section ___________________

5. **Curriculum Documents**  
   (PAR, Catalog Copy, CARs, and CCGs)

6. **Academic Assessment Plan**

7. **Board of Regents PAR and Executive Summary**
NOTE: Coordination with affected units and faculty listserv (uaa-faculty@lists.uaa.alaska.edu) must occur at least 10 working days before consideration by UAB or GAB. See section 5 for details. Also see section 5 for required documents and instructions.
Figure 3.2: Non-Permanent (-93, -94) Credit Course, 500-Level Course, and Noncredit/CEU Approval Process

NOTE: Coordination with the faculty listserv (uaa-faculty@lists.uaa.alaska.edu) must occur at least 10 working days before submittal to the Governance Office. See section 5 for details. Also see section 5 for required documents and instructions.
A major revision of an existing program or the development of a new program must be discussed with the Office of Academic Affairs at ayoaa@uaa.alaska.edu or 907-786-1054 before the curriculum proposal is presented to UAB/GAB. It is best to meet with OAA at the start of program development.
Before the curriculum proposal is presented to the school/college committees and UAB/GAB, consult with the Office of the Registrar at aypublications@uaa.alaska.edu for a new prefix.

NOTE: Coordination with affected units and faculty listserv (uaa-faculty@lists.uaa.alaska.edu) must occur at least 10 working days before consideration by UAB or GAB. See section 4 for details. Also see section 4 for required documents and instructions.
A suspension to an existing program must be discussed with the Office of Academic Affairs at ayoaa@uaa.alaska.edu or 907-786-1054.

Figure 3.5: Degree and Certificate Suspension Approval Process

Suspension Initiated by Faculty and/or College/School Academic Dean/Campus Director

Consult With Office of Academic Affairs

College/School Dean/Director

Coordination with Affected College/School Dean/Director for Programs Offered on Multiple Campuses & Community Campus Programs

Programs Offered on One Campus

OAA/Provost Approval

Northwest Commission on Colleges and Universities

Statewide Academic Council

Chancellor

Faculty Curriculum Listserv

Undergraduate Academic Board

Graduate Academic Board

Registrar

Notification

Notification

Notification

Notification (Undergrad Progs)

Notification (Grad Progs)

Notification

Notification

Notification

Notification
A deletion to an existing program must be discussed with the Office of Academic Affairs at ayoaa@uaa.alaska.edu or 907-786-1054.

**Figure 3.5: Degree and Certificate Deletion Approval Process**

Deletion Initiated by Faculty and/or College/School Dean/Director

Program Suspension
*(See suspension approval process for greater detail)*

Consult With Office of Academic Affairs

Develop Proposal Based on Relevant Considerations

Department Curriculum Committee/Chair

College/School Curriculum Committee

College/School Dean/Director

Governance Office

Undergraduate Academic Board (UAB)

Faculty Senate

Graduate Academic Board (GAB)

OAA/Provost

Chancellor

Statewide Academic Council

UA President

Board of Regents*

Northwest Commission on Colleges and Universities

Office of the Registrar

*Requires 60-day advance notice to have items placed on the agenda
Section 4 - Prefixes

Responsibility for prefixes and their associated courses are assigned to academic departments. All proposals to add, change, inactivate or transfer a prefix must originate with the academic program currently assigned to the prefix.

4.1 Changes to or Replacement of a Prefix

The school/college must discuss the change or replacement of prefix with the OAA before the proposal is presented to the UAB/GAB for review. OAA contact persons are the Vice Provost for Undergraduate Academic Affairs or the Assistant Vice Provost (ayoaa@uaa.alaska.edu, ph 907-786-1054).

1. The following must be submitted to the Governance Office (aygov@uaa.alaska.edu):
   a. A cover memo summarizing the proposal.
   b. Signed Program/Prefix Action Request (PAR: www.uaa.alaska.edu/governance/coordination/index.cfm)

   Note: The Governance Office will accept electronic signed PARs as long as all signatures up to the Dean/Director level are present and legible and the approved or disapproved boxes are checked.

   If the change of prefix affects a degree or certificate, a separate signed PAR must be submitted for each program change, together with revised catalog copy in Word using the track changes function. A Word copy of the current catalog is available on the Governance website. (www.uaa.alaska.edu/governance).

2. Coordination should take place early in the curriculum process and consists of two steps:
   a. Coordination memo or email. Coordination is required when the change of prefix has any impact on another course or program. The faculty initiator must contact the department chair/director of every affected program and provide documentation of the changes to the affected programs upon request. Proof of coordination must be provided to the Governance Office.

   A list of impacted courses, programs and catalog references can be found by an electronic search of the UAA catalog using keywords such as MATH A172. A spreadsheet (www.uaa.alaska.edu/governance/coordination/index.cfm) is required listing the reference and the impact (program requirements, electives, selectives, course prerequisite, corequisites).

   b. The faculty initiator is also required to send an email to uaa-faculty@lists.uaa.alaska.edu explaining the addition or inactivation of the prefix. The coordination email must include contact information, as well as:

      • School and department (PAR boxes 1a and 1b),
      • Prefix (PAR box 2),
      • Type of Action (Add/Change/Delete) (PAR box 4),
      • justification for action (PAR box 8),
      • any other relevant information.

   The email must be sent at least 10 working days before being presented at UAB/GAB.

3. Approval of changes to or replacement of a prefix follows the curriculum approval process outlined in Section 3.
### 4.2 Addition of a Prefix

The school/college must discuss the addition of a prefix with the OAA before the proposal is presented to the UAB/GAB for review. OAA contact persons are the Vice Provost for Undergraduate Academic Affairs and the Assistant Vice Provost (ayoaa@uaa.alaska.edu, ph 907-786-1054).

A new prefix must be requested from the Office of the Registrar. Email address is aypublications@uaa.alaska.edu

1. The following must be submitted to the Governance Office (aygov@uaa.alaska.edu):
   a. A cover memo summarizing the proposal.
   b. Signed PAR (www.uaa.alaska.edu/governance/coordination/index.cfm).
      
      Note: The Governance Office will accept electronic signed PARs as long as all signatures up to the Dean/Director level are present and legible and the approved or disapproved boxes are checked.
   c. If the addition of the prefix affects a degree or certificate, a separate signed PAR must be submitted for each program change, together with revised catalog copy in Word using the track changes function. A Word copy of the current catalog is available on the Governance website (www.uaa.alaska.edu/governance/).

2. Coordination should take place early in the curriculum process and consists of two steps:
   a. Coordination memo or email. Coordination is required when the new prefix has any impact on another course or program. The faculty initiator must contact the department chair/director of every affected program and provide documentation of the changes to the affected programs upon request. Proof of coordination must be provided to the Governance Office.
   b. The faculty initiator is also required to send an email to uaa-faculty@lists.uaa.alaska.edu explaining the addition of the prefix. The email must include contact information, as well as:
      - School and department (PAR boxes 1a and 1b),
      - Prefix (PAR box 2),
      - Type of Action (Add/Change/Delete) (PAR box 4),
      - justification for action (PAR box 8),
      - any other relevant information.
      The email must be sent at least 10 working days before being presented at UAB/GAB.

3. Approval of addition of a prefix follows the curriculum approval process outlined in Section 3.

### 4.3 Inactivation of a Prefix

The school/college must discuss the inactivation of a prefix with the OAA before the proposal is presented to the UAB/GAB for review. OAA contact persons are the Vice Provost for Undergraduate Academic Affairs and the Assistant Vice Provost (ayoaa@uaa.alaska.edu, ph 907-786-1054).

1. The following must be submitted to the Governance Office (aygov@uaa.alaska.edu):
   a. A cover memo summarizing the proposal.
   b. Signed PAR (www.uaa.alaska.edu/governance/coordination/index.cfm).
Note: The Governance Office will accept electronic signed PARs as long as all signatures up to the Dean/Director level are present and legible and the approved or disapproved boxes are checked.

If the inactivation of the prefix affects a degree or certificate, a separate signed PAR must be submitted for each program change, together with revised catalog copy in Word using the track changes function. A Word copy of the current catalog is available on the Governance website (www.uaa.alaska.edu/governance/).

2. Coordination should take place early in the curriculum process and consists of two steps:

   a. Coordination memo or email. Coordination is required when the inactivated prefix has any impact on another course or program. The faculty initiator must contact the department chair/director of every affected program and provide documentation of the changes to the affected programs upon request. Proof of coordination must be provided to the Governance Office.

   A list of impacted courses, programs and catalog references can be found by an electronic search of the UAA catalog using keywords such as MATH A172. A spreadsheet is required listing the reference and the impact (program requirements, electives, selectives, course prerequisite, corequisites).

   b. The faculty initiator is also required to send an email to uaa-faculty@lists.uaa.alaska.edu explaining the addition or inactivation of the prefix. The email must include contact information, as well as:

      - School and department (PAR boxes 1a and 1b),
      - Prefix (PAR box 2),
      - Type of Action (Add/Change/Delete) (PAR box 4),
      - justification for action (PAR box 8),
      - any other relevant information.

   The email must be sent at least 10 working days before being presented at UAB/GAB.

3. Approval to inactivate a prefix follows the curriculum approval process outlined in Section 3.

4.4 Transfer of a Prefix

A proposal to transfer responsibility for a prefix and its associated courses to an academic department other than the department currently assigned to the prefix requires approval from the Provost. The proposal consists of a memorandum of understanding between the departments stating the requested action and the reason for the action. The memorandum is to be signed by the department chairs of the two departments and the dean/director of each department. The memorandum of understanding is forwarded to OAA for consideration. Proposals approved by the Provost are forwarded to the Office of the Registrar to update relevant records.
Section 5 - Courses

5.1 Changes or Revisions to a Course

It is advisable to write the Course Content Guide (CCG) first. The information from the CCG can then be pasted into the CAR. Before developing the CCG, the following need to be considered in addition to the course content: type of course, level, number, whether it will be stacked or cross-listed, prerequisites and registration restrictions, instructor goals and student learning outcomes.

1. The following must be submitted to the Governance Office (aygov@uaa.alaska.edu):
   a. CAR signed by the faculty initiator, department chair, college curriculum committee chair, and the dean or director or designee. A faculty member may sign no more than two signature lines on the CAR. Exceptions to this rule may be permissible with supporting documentation.  
   Note: The Governance Office will accept electronic signed CARs as long as all signatures up to the Dean/Director level are present and legible and the approved or disapproved boxes are checked.
   b. Completed CCG.
   c. If the revised course changes the requirements of the program in which the course is housed, a signed PAR and catalog copy in Word using the track changes function must be provided. (See section 7)
   d. Signed Fee Request Form (one per course) for courses with new, deleted or revised fees. (www.uaa.alaska.edu/governance/coordination/index.cfm). The Fee Request Form is not required if there are no changes to existing fees.

2. Coordination should take place early in the curriculum process and consists of three steps:
   a. Coordination memo or email. Coordination is required when the revised course has any impact on another course or program. The faculty initiator must contact the department chair/director of every affected program and provide documentation of the changes to the affected programs upon request. Proof of coordination must be provided to the Governance Office.
   b. A list of impacted courses, programs and catalog references can be found by an electronic search of the UAA catalog using keywords such as MATH A172. A spreadsheet is required listing the reference, the impacted program/course/catalog copy, and the impact (program requirements, electives, selectives, course prerequisite, corequisites).
   c. The faculty initiator is also required to send an email to uaa-faculty@lists.uaa.alaska.edu explaining the revision. The coordination email must include contact information as well as:
      - School and department (CAR boxes 1a and 1c),
      - course prefix (CAR box 2),
      - course number (CAR box 3),
      - course title (CAR box 6),
      - Add/Change/Delete and if change, a summary list of changes (CAR box 8),
      - course description (CAR box 15),
      - justification for action (CAR box 19),
      - any other relevant information.
Do not attach the CAR/PAR or the CCG to the email. The coordination email must be sent at least 10 working days before being presented at UAB/GAB.

3. The faculty initiator is required to send the CAR and CCG to the library liaison for that department (http://consortiumlibrary.org/find/subject_liaison_librarians). It is suggested that this be done early in the curriculum process.

4. If the revised course is a GER, the appropriate guidelines must be followed (See Section 6). GER review templates are available at www.uaa.alaska.edu/governance/GER.

5. A course may not be scheduled nor registration for a course at UAA take place before the appropriate curriculum approval process has been completed and approved and the course has been entered into the system.

6. Changes or revisions to existing courses are approved through the curriculum approval process outlined in section 3.

5.2 Adding a New Course

It is advisable to write the CCG first. The information from the CCG can then be pasted into the CAR. Before developing the CCG, the following need to be considered in addition to the course content: type of course, level, number, whether it will be stacked or cross-listed, prerequisites and registration restrictions, instructional goals and student learning outcomes.

A course may not be scheduled nor registration for a course at UAA take place before the appropriate curriculum approval process has been completed and approved and the course has been entered into the system.

5.2.1 Permanent Credit Courses (050-499 and 600-699)

1. The following must be submitted to the Governance Office (aygov@uaa.alaska.edu):
   a. CAR signed by the faculty initiator, department chair, college curriculum committee chair, and the dean or director or designee.
      
      Note: The Governance Office will accept electronic signed CARs as long as all signatures up to the Dean/Director level are present and legible and the approved or disapproved boxes are checked.
   
   b. Completed CCG.
   
   c. If the new course changes the requirements of the program in which the course is housed, a signed PAR and catalog copy in Word using the track changes function must be provided.
   
   d. Signed Resource Implication Form (one per discipline). Signed Fee Request Form (one per course) for courses with new or revised fees (www.uaa.alaska.edu/governance/coordination/index.cfm). The Fee Request Form is not required if the course does not have fees or an existing general program fee is to be applied.

2. Coordination should take place early in the curriculum process and will consist of three steps:
   a. Coordination memo or email. Coordination is required when the new course has any impact on another course or program. The faculty initiator must contact the department chair/director of every affected program and provide documentation of the changes to the affected programs upon request. Proof of coordination must be provided to the Governance Office.
      
      A list of impacted courses, programs and catalog references can be found by an electronic search of the UAA catalog using keywords such as MATH A172. A spreadsheet is required listing the
reference, the impacted program/course/catalog copy, and the impact (program requirements, electives, selectives, course prerequisite, corequisites).

b. The faculty initiator is also required to send an email to uaa-faculty@lists.uaa.alaska.edu explaining the new course. The coordination email must include contact information as well as:

- School and department (CAR boxes 1a and 1c),
- course prefix (CAR box 2),
- course number (CAR box 3),
- course title (CAR box 6),
- Add/Change/Delete and if change, a summary list of changes (CAR box 8),
- course description (CAR box 15),
- justification for action (CAR box 19),
- any other relevant information.

Do not attach the CAR/PAR or the CCG to the email. The coordination email must be sent at least 10 working days before being presented at UAB/GAB.

c. The faculty initiator is required to send the CAR and CCG to the Library Liaison for that department (http://consortiumlibrary.org/find/subject_liaison_librarians).

3. If the new course is proposed as a GER, the appropriate guidelines must be followed (See Section 6). GER review templates are available at www.uaa.alaska.edu/governance/GER.

4. The curriculum approval process to be followed is found in section 3.1 and is depicted in Figure 3.1

5.2.2 Non-Permanent (-93, -94) Credit Course, 500-Level Course, and Noncredit/CEU Course

1. The following must be submitted to the Governance Office (aygov@uaa.alaska.edu):

   a. CAR signed by the faculty initiator, department chair, college curriculum committee chair, and the dean or director or designee.

   Note: The Governance Office will accept electronic signed CARs as long as all signatures up to the Dean/Director level are present and legible and the approved or disapproved boxes are checked.

   b. Completed CCG.

   c. If the new course changes the requirements of the program in which the course is housed, a signed PAR and catalog copy in Word using the track changes function must be provided.

   d. Signed Resource Implication Form (one per discipline).

   e. Signed Fee Request Form (one per course) for courses with new or revised fees (www.uaa.alaska.edu/governance/coordination/index.cfm). The Fee Request Form is not required if the course does not have fees or an existing general program fee is to be applied.

2. Coordination should take place early in the curriculum process and consists of three steps:

   a. Coordination memo or email. Coordination is required when the new course has any impact on another course or program. The faculty initiator must contact the department chair/director of every affected program and provide documentation of the changes to the affected programs upon request. Proof of coordination must be provided to the Governance Office.

   A list of impacted courses, programs and catalog references can be found by an electronic search of the UAA catalog using keywords such as MATH A172. A spreadsheet is required listing the
reference, the impacted program/course/catalog copy, and the impact (program requirements, electives, selectives, course prerequisite, corequisites).

b. The faculty initiator is also required to send an email to uaa-faculty@lists.uaa.alaska.edu explaining the new course. The email must include contact information, as well as:
   
   - School and department (CAR boxes 1a and 1c),
   - course prefix (CAR box 2),
   - course number (CAR box 3),
   - course title (CAR box 6),
   - Add/Change/Delete and if change, a summary list of changes (CAR box 8),
   - course description (CAR box 15),
   - justification for action (CAR box 19),
   - any other relevant information.

   Do not attach the CAR/PAR or the CCG to the email. The coordination email must be sent at least 10 working days before being presented at UAB/GAB.

c. The faculty initiator is required to send the CAR and CCG to the Library Liaison for that department (http://consortiumlibrary.org/find/subject_liaison_librarians).

3. The curriculum approval process to be followed is found in section 3.1 and is depicted in Figure 3.2
5.3 Deleting a Course

1. The following must be submitted to the Governance Office (aygov@uaa.alaska.edu):
   a. CAR signed by the faculty initiator, the department chair, the college curriculum committee chair, and the dean or director or designee.
      
      Note: The Governance Office will accept electronic signed CARs as long as all signatures up to the Dean/Director level are present and legible and the approved or disapproved boxes are checked.
   b. Signed PAR, if needed. If the course deletion affects a degree or certificate, a separate signed PAR must be submitted for each program, together with revised catalog copy in Word using the track changes function.

2. When Filling out the CAR, only the following boxes need to be completed:
   - Course Prefix (Box 2)
   - Course Number (Box 3)
   - Complete Course Title (Box 6)
   - Type of Action (Box 8)
   - Implementation Date (Box 11)
   - Cross Listed or Stacked (Box 12)
   - Coordination Email Date (Box 13b.)
   - Justification for Action (Box 19)

3. Coordination should take place early in the curriculum process and consists of two steps:
   a. Coordination memo or email. Coordination is required when the deleted course has any impact on another course or program. The faculty initiator must contact the department chair/director of every affected program and provide documentation of the changes to the affected programs upon request. Proof of coordination must be provided to the Governance Office.

      A list of impacted courses, programs and catalog references can be found by an electronic search of the UAA catalog using keywords such as MATH A172. A spreadsheet (www.uaa.alaska.edu/governance/coordination/index.cfm) is required listing the reference, the impacted program/course/catalog copy, and the impact (program requirements, electives, selectives, course prerequisite, corequisites).

      Reference to a deleted course in impacted programs and courses will be struck from the catalog and from Banner.
   
   b. The faculty initiator is also required to send an email to uaa-faculty@lists.uaa.alaska.edu explaining the deletion. The email must include contact information, and must be sent at least 10 working days before being presented at UAB/GAB.

4. Purge List
   A purge list is compiled annually for courses not offered successfully in the previous four academic years. If a course has not been successfully offered in the previous four academic years, then that course will be purged from the catalog unless the department responsible for the course provides a clear justification for retaining the course in the catalog. This justification must be submitted to UAB/GAB for review.

   Reference to a purged course in impacted programs and courses will be struck from the catalog and from Banner.
5. **GER Course Purge List**
   UAA policy states that a course may not remain on the GER list if it has not been offered successfully at least once during the past four semesters, excluding summer. The list of GER courses will be provided to UAB by the Office of the Registrar each spring. Review of the GER list will be done annually by UAB in the spring semester.
Section 6 - General Education Requirement (GER)

6.1 General Education and General Course Requirements

The Associate of Arts degree program and programs at the baccalaureate level must comply with the UAA General Education Requirements specified for that program in the catalog. Associate of Applied Science degree programs and undergraduate certificate programs of 30 credits or more must have identifiable general education components in the areas of communication, computation and human relations. These components must be at the collegiate level, must require a combined effort equivalent to at least 6 academic credits (for the program), and their student learning outcomes must be assessed.

The student learning outcomes of these general requirements may be met through specific courses or through activities embedded in the major requirements. If embedded, programs will be asked to identify the number and types of exercises used to fulfill these requirements and to describe their assessment methods.

When an action involves a change in GER, the UAB will refer the action, preferably with recommendations, to the General Education Review Committee (GERC).

When an action involves a change in the GER, the faculty initiator must communicate with all affected faculty in school/colleges, community campuses (including Prince William Sound Community College), deans, and their assistants.

All GER courses must have instructional goals and assessable student learning outcomes that are consistent with the current UAA catalog GER category descriptors and the appropriate GER Student Learning Outcomes. See the Governance webpage at www.uaa.alaska.edu/governance/GER.

All GER courses are subject to ongoing review and approval through the normal Governance process on a cycle, proposed by the departments and approved by the colleges, which must not exceed 10 years.

The GERC is a standing committee of the UAB reporting to the UAB.

The GERC review process is as follows:

1. Department/school/college prepare proposal and coordinate
2. UAB agenda (first reading)
3. GER Committee of UAB
4. UAB agenda (second reading)
5. Faculty Senate (approved actions of UAB only)
6. Administration (approved actions of the UAA Faculty Senate only)

6.2 Revision of or Request for GER Course

It is advisable to write the CCG first. The information from the CCG can then be pasted into the CAR. Before developing the CCG, the following need to be considered in addition to the course content: type of course, level, number, whether it will be stacked or cross-listed, prerequisites and registration restrictions, instructor goals and student learning outcomes.

1. Additional Considerations:
   • Inter MAU coordination to facilitate transfer between campuses.
     o Courtesy coordination is recommended to determine potential transfer conflicts.
- Check other campus’ catalogs to see if they have a course with the same prefix and number.
- If this is the case and the course is not a GER, consider using a new, unused (at all MAUs) course number if making this course a GER at UAA. The registrar’s office can provide assistance with course number suggestions.
- If a new number is inappropriate, please bring transfer concerns to the attention of the GERC.

- The appropriate GER template must be applied ([www.uaa.alaska.edu/governance/](http://www.uaa.alaska.edu/governance/))
- Addresses appropriate GER student learning outcome(s) from the GER Preamble ([www.uaa.alaska.edu/records/catalogs/catalogs.cfm](http://www.uaa.alaska.edu/records/catalogs/catalogs.cfm))
  1. Communicate effectively in a variety of contexts and formats;
  2. Reason mathematically and analyze quantitative and qualitative data competently to reach sound conclusions;
  3. Relate knowledge to the historical context in which it developed and the human problems it addresses;
  4. Interpret different systems of aesthetic representation and understand their historical and cultural contexts;
  5. Investigate the complexity of human institutions and behavior to better understand interpersonal, group and cultural dynamics;
  6. Identify ways in which science has advanced the understanding of important natural processes;
  7. Locate and use relevant information to make appropriate personal and professional decisions;
  8. Adopt critical perspectives for understanding the forces of globalization and diversity; and
  9. Integrate knowledge and employ skills gained to synthesize creative thinking, critical judgment and personal experience in a meaningful and coherent manner.

- Meets category definition from Board of Regents Regulation ([www.alaska.edu/bor/policy-regulations/](http://www.alaska.edu/bor/policy-regulations/))
- Addresses and assesses GER student learning outcomes for the classification descriptions described in the catalog ([www.uaa.alaska.edu/records/catalogs/catalogs.cfm](http://www.uaa.alaska.edu/records/catalogs/catalogs.cfm)) and this handbook
  - **Oral communication skills.** Students:
    - develop both their message creation and message interpretation skills in order to be more successful communicators.
    - develop an awareness of the role of communication in a variety of human relationships.
    - develop and implement effective and appropriate communication skills, including the ability to develop, organize, present and critically evaluate messages; analyze audiences; and adapt to a variety of in-person communication settings.
  - **Quantitative skills.** Students:
    - develop their algebraic, analytic and numeric skills; use them to solve applied problems.
    - correctly explain their mathematical reasoning.
  - **Written communication skills.** Students:
    - practice methods for establishing credibility, reasoning critically and appealing to the emotions and values of their audience.
    - write for a variety of purposes and audiences by employing methods of rhetorical and cultural analysis.
    - develop the tools to read, think and write analytically about print and nonprint texts and to generate texts that engage their own perceptions while synthesizing the ideas of texts and scholars.
demonstrate their ability to communicate effectively by selecting form and content that fits the situation; adhering to genre conventions; adapting their voice, tone, and level of formality to that situation; and controlling stylistic features such as sentence variety, syntax, grammar, usage, punctuation and spelling.

- **Fine arts.** Students should be able to:
  - identify and describe works of art by reference to media employed, historical context and style, and structural principles of design and composition.
  - interpret the meaning or intent of works of art and assess their stylistic and cultural importance by reference to their historical significance, their relationship to earlier works and artists, and their overall impact of subsequent artistic work.

- **Humanities.**
  Students who complete a **content-oriented** course in the humanities should be able to:
  - identify texts or objects, place them in the historical context of the discipline,
  - articulate the central problems they address and provide reasoned assessments of their significance.

  Students who complete a **skills oriented** humanities course in **logic** should be able to:
  - identify the premises and conclusions of brief written arguments,
  - evaluate their soundness or cogency, and recognize common fallacies.
  - use a formal technique to determine the validity of simple deductive arguments and 
  - evaluate the adequacy of evidence according to appropriate inductive standards.

  Students who complete a **skill-oriented** humanities course in a **language** should:
  - demonstrate proficiency in listening, speaking and writing.

- **Natural sciences.** Student will:
  - Be able to apply the scientific method by formulating questions or problems, proposing hypothetical answers or solutions, testing those hypotheses, and reaching supportable conclusions.
  - demonstrate an understanding of the fundamentals of one or more scientific disciplines,
  - demonstrate a knowledge of the discoveries and advances made within that discipline, and the impact of scientific information in sculpting thought and in providing the foundations for the technology in use at various times in history.

  Students completing the laboratory class will:
  - demonstrate the ability to work with the tools and in the settings encountered by professionals in the discipline,
  - critically observe materials, events or processes, and 
  - accurately record and analyze their observations.

- **Social sciences.** Students will be able to:
  - describe the discipline she or he has studied and discuss the key principles or themes that unify it.
  - describe and contrast key scientific theories and theoretical approaches in a discipline and the ways in which these theories structure social scientists’ thinking and research.
  - demonstrate the ability to think critically about how society works and how our social realities are created by diverse social processes and cultural practices. Describe the wide range of social science data and the importance of using empiricism, both qualitative and quantitative, in making claims about the social world and in setting evidence-based social policy.
  - explain and use basic social science methods and summarize the assumptions behind and the limitations of inductive or deductive approaches that might include: the formulation of
research questions and hypotheses; data collection and analysis; and testing, verifying, and rejecting hypotheses.

**Integrative capstone.** Students must:
- demonstrate the ability to integrate knowledge by accessing, judging and comparing knowledge gained from diverse fields and by critically evaluating their own views in relation to those fields.

- Provides rationale for retaining or adding this course to the GER menu
- Integrative capstone courses that restrict registration to completion of Tier I GERs should use the following registration restriction verbiage: Completion of Tier I (basic college-level skills) courses.

Actions involving changes in GER are referred to the GERC after first reading at UAB. After GERC review and approval, the second reading takes place at UAB.

2. The following must be submitted to the Governance Office (aygov@uaa.alaska.edu):
   a. Signed CAR.

   *Note: The Governance Office will accept electronic signed CARs as long as all signatures up to the Dean/Director level are present and legible and the approved or disapproved boxes are checked.*

   b. Completed CCG.

   If the new or revised course affects a degree or certificate, a separate signed PAR must be submitted for each program change, together with revised catalog copy in Word using the track changes function. A Word copy of the current catalog is available on the Governance website ([www.uaa.alaska.edu/records/catalogs/catalogs.cfm](http://www.uaa.alaska.edu/records/catalogs/catalogs.cfm)).

   c. Signed Fee Request Form (one per course) for courses with new, deleted or revised fees. ([www.uaa.alaska.edu/governance/coordination/index.cfm](http://www.uaa.alaska.edu/governance/coordination/index.cfm)). The Fee Request Form is not required if there are no changes to existing fees.

3. Coordination should be done early in the process and consists of three steps:
   a. Coordination memo or email. Coordination is required when the new course has any impact on another course or program. The faculty initiator must contact the department chair/director of every affected program and provide documentation of the changes to the affected programs upon request. Proof of coordination must be provided to the Governance Office.

   A list of impacted courses, programs and catalog references can be found by an electronic search of the UAA catalog using keywords such as MATH A172. A spreadsheet is required listing the reference, the impacted program/course/catalog copy, and the impact (program requirements, electives, selectives, course prerequisite, corequisites).

   b. The faculty initiator is also required to send an email to uaa-faculty@lists.uaa.alaska.edu explaining the revision or new course. The email must include contact information, as well as:

   - School and department (CAR boxes 1a and 1c),
   - course prefix (CAR box 2),
   - course number (CAR box 3),
   - course title (CAR box 6),
   - Add/Change/Delete and if change, a summary list of changes (CAR box 8),
   - course description (CAR box 15),
• justification for action (CAR box 19),
• any other relevant information.

Do not attach the CAR/PAR or the CCG to the email. The coordination email must be sent at least 10 working days before being presented at UAB/GAB.

c. The faculty initiator is required to send the CAR and CCG to the library liaison for that department (http://consortiumlibrary.org/find/subject_liaison_librarians).

4. GER courses are approved through the curriculum approval process outlined in section 3.
5. GER changes should have a Fall implementation date. To ensure approval is received in time, the faculty initiator should consult the curricular production calendar on the Governance website. Curriculum must have first reading at UAB by the third Friday in February to be considered for Fall implementation.

6.3 Deletion of a GER Course

UAA policy states that a course may not remain on the GER list if it has not been offered successfully at least once during the past four semesters, excluding summer sessions. The purge list of GER courses will be provided to UAB by the Office of the Registrar each spring. Review of the GER list will be done annually by UAB in the spring semester.
Section 7 - Programs

7.1 Minor Revisions to Programs

*Minor Revisions to Programs are changes that do not ‘substantially alter the student learning outcomes of the program’*

Also refer to UA Regulation 10.04.02 [www.alaska.edu/bor/policy-regulations/](http://www.alaska.edu/bor/policy-regulations/)

Minor program revisions are approved through the standard curriculum review process at UAA as outlined in section 3. The final approval rests with the Provost. Reviews by t SAC, the BOR and NWCCU are not necessary.

The school/college must discuss the proposal to determine the magnitude of the change and the document requirements with the OAA.

**OAA contact persons are Accreditation Liaison Officer and either the Vice Provost for Undergraduate Academic Affairs for undergraduate programs or the Vice Provost for Research and Graduate Studies for graduate programs ([ayooaa@uaa.alaska.edu](mailto:ayooaa@uaa.alaska.edu)).**

1. The following must be submitted to the Governance Office ([aygov@uaa.alaska.edu](mailto:aygov@uaa.alaska.edu)):
   a. PAR signed by the faculty initiator, the department chair, the curriculum committee chair, and the dean or director or designee ([www.uaa.alaska.edu/governance/coordination/index.cfm](http://www.uaa.alaska.edu/governance/coordination/index.cfm)). A faculty member may sign no more than two signature lines on the PAR. Exceptions to this rule may be permissible with supporting documentation.

   *Note: The Governance Office will accept electronic signed PARs as long as all signatures up to the Dean/Director level are present and legible and the approved or disapproved boxes are checked.*

   b. Complete program catalog copy in Word using the track changes function including student learning outcomes for the program. A Word copy of the current catalog is available on the Governance website ([www.uaa.alaska.edu/governance](http://www.uaa.alaska.edu/governance)) under Quick Links.

   c. All course CARs and CCGs for new and revised courses.

   d. Four-Year Course Offering Plan for the program.

   e. Signed Resource Implication Form.

   f. Signed Fee Request Form (for new, deleted or revised fees).

   g. Programs designated as Gainful Employment programs must also complete additional documentation for the Financial Aid office.

2. Coordination should take place early in the process and consists of three steps:
   a. Coordination memo or email. Coordination is required when the revision has any impact on another course or program. The faculty initiator must contact the department chair/director of every affected program and provide documentation of the changes to the affected programs upon request. Examples are when courses are deleted/added to a program or when prerequisites/registration restrictions are changed. Proof of coordination must be provided to the Governance Office.

   b. The faculty initiator is also required to send an email to [uua-faculty@lists.uaa.alaska.edu](mailto:uua-faculty@lists.uaa.alaska.edu) explaining the revision. The email must include contact information, as well as:
      * School and department (PAR boxes 1a and 1b),
• Complete Program Title (PAR box 2),
• Type of Program (PAR box 3),
• Type of Action (Add/Change/Delete) (PAR box 4),
• justification for action (PAR box 8),
• any other relevant information.

The email must be sent at least 10 working days before being presented at UAB/GAB.

c. The faculty initiator is required to send the CARs and CCGs to the library liaison for that department (http://consortiumlibrary.org/find/subject_liaison_librarians).

The program approval process is outlined in section 3.

7.2 Programs which have MATH, ENGL, and/or COMM requirements

7.2.1 Programs which have MATH program requirements:

It is recommended that programs with specific MATH requirements use the following language in specifying the requirement:

“MATH A or any MATH course for which MATH A is in the prerequisite chain.”

Rationale: In programs with specific mathematics requirements (e.g., MATH A105), students can meet those requirements with either

a. A course specifically required by the program (e.g., MATH A105) or
b. A higher-level mathematics course (e.g., MATH A200) that has the specifically required course (e.g., MATH A105) in its pre-requisite chain.

Rationale: This change will allow students who have taken MATH A200 to use this course in a program that requires MATH A105 without going through the petition process. Rewriting the requirement as indicated will reduce the number of petitions students must submit.

7.2.2 Programs which have ENGL A111 as a specific major requirement:

It is recommended that programs with a specific ENGL requirements use the following language in specifying the requirement:

“ENGL A111 or ENGL A1W- Written Communication GER.”

Rationale: In programs with ENGL A111 as a specific major requirement, students can meet that requirement with either

a. ENGL A111 or
b. Transfer course which meets Written Communication GER
Rationale: This change will allow use of transfer course work which meets Written Communication GER standards without going through the petition process. Rewriting the requirement as indicated will reduce the number of petitions students must submit.

7.2.3 Programs which have COMM A111, COMM A235, COMM A237, or COMM A241 as a specific major requirements:

It is recommended that programs with specific GER COMM requirement use the following language in specifying the requirement:

“Oral Communication Skills GER.”

Rationale: In programs which list Oral Communication Skills GER, students can meet those requirements with either

a. COMM A111, COMM A235, COMM A237, or COMM A241 or
b. Transfer course which meets Oral Communication GER

Rationale: Many programs currently have a specific requirement which mirrors that Oral Communication GER (Requires COMM A111, COMM A235, COMM A237, or COMM A241). Students who transfer in a communication class which meets GER but not specifically one of those courses must complete a petition. Rewriting the requirement as indicated will reduce the number of petitions students must submit.

7.3 New Non-Doctoral Programs and Major Changes to ALL Programs

The initiating department must discuss a proposal for a major revision of an existing program or the development of a new program with the appropriate dean and OAA before the curriculum proposal is presented to the college curriculum committee/UAB/GAB for review. Schools/colleges are encouraged to contact OAA early in the approval process. Proposals should include information listed in Section 4 of this handbook. OAA contact persons are the Vice Provost for Undergraduate Academic Affairs (ayoaa@uaa.alaska.edu) for assistance with undergraduate programs and the Vice Provost for Research and Graduate Studies for graduate programs.

This section applies to Workforce Credentials, Undergraduate Certificates, Associate Degrees, Baccalaureate Degrees, Minors, Post-Baccalaureate Certificates, Graduate Certificates and Master’s Degrees except as noted.

Also refer to UA Regulation 10.04.02 www.alaska.edu/bor/policy-regulations/

1. The OAA assists the faculty initiators in preparing the documents necessary for review and approval by the Board of Regents and NWCCU as needed. Depending on the nature of the proposal, these forms address the following issues:

a. Relationship of the proposed program relative to the educational mission of the University of Alaska and the MAU.

b. Collaboration with other universities and community colleges within the UA system.

c. History of the development of the proposed program or program changes.

d. Demand for the program, relation to State of Alaska long-range development, relation to other programs in the University that might depend on or interact with the proposed program, including the GER.
e. State needs met by the proposed program.

f. Availability of appropriate student services for program participants. A schedule for implementation of the program.

g. Student opportunities, student learning outcomes, and enrollment projections.

h. Rationale for the new program and educational objectives, program student learning outcomes, and plans for assessment.

i. Opportunities for research and community engagement for admitted students.

j. Faculty and staff workload implications.

k. Fiscal Plan for the proposed program

l. Library, equipment, and additional resource requirements, including availability, appropriateness and quality.

m. New facility or renovated space requirements.

n. Concurrence of appropriate advisory councils.

2. The following documents must be submitted to OAA before the program can be sent to SAC, BOR, and NWCCU for review and approval, as necessary. These documents will not be reviewed by the academic boards. Forms and templates for these submittals are obtained from OAA.

   a. Four-Year Course Offering Plan for the Program.

   b. A budget worksheet.

   c. Board of Regents Program Action Request Form

   d. Board of Regents Prospectus and Executive Summary forms) which address all requirements and policies approved by SAC and BOR.

   e. Resource Implication Form and a signed Fee Request Form (if needed).

   f. An Academic Assessment Plan for review by the Academic Assessment Committee.

   g. A risk management plan where required. This is developed in conjunction with the program’s Dean/Director, the Director of Risk Management, and legal counsel as needed.

3. In addition to the above documents, the following must be submitted to the Governance Office. These documents will be reviewed by the appropriate academic board for all new program proposals and proposals for major program changes (with the exception of Workforce Credentials)

   a. A cover memo summarizing the proposal.

   b. Signed PAR (www.uaa.alaska.edu/governance/coordination/index.cfm).

   Note: The Governance Office will accept electronic signed PARs as long as all signatures up to the Dean/Director level are present and legible and the approved or disapproved boxes are checked.

   c. Complete catalog copy in Word using the track changes function, including student learning outcomes for the program or a web address linked to the student learning outcomes. A Word copy of the current catalog is available on the Governance website (www.uaa.alaska.edu/governance/).

   d. CARs and CCGs for all new and revised courses.

4. The approval process for new programs and programs with major changes is outlined in section 3.
5. Degree and certificate requirements are effective from fall through summer of each catalog publication.

7.4 New Doctoral Programs

The initiating department must discuss a proposal for a new doctoral program with the appropriate dean and Vice Provost for Research and Graduate Studies before the curriculum proposal is presented to the college curriculum committee/GAB for review. Schools/colleges are encouraged to contact the Vice Provost for Research and Graduate Studies early in the approval process. Proposals should include information listed in Section 3.8 of this handbook.

1. The Vice Provost for Research and Graduate Studies assists the faculty initiators in preparing the documents necessary for review and approval by the Board of Regents and NWCCU as needed. These documents are described in Section 3.8.
   a. Justification Proposal. This proposal addresses criteria that are used to determine the viability and need for the program.
   b. Full Proposal. This proposal consists of the suite of curriculum documents needed to see the program through the UAA curriculum process, SAC review, BOR approval, and NWCCU acceptance.

2. The following documents must be submitted to OAA before the program can be sent on the SAC, the BOR, and NWCCU as necessary. These documents will not be reviewed by the academic boards. Forms and templates for these submittals are obtained from OAA.
   a. Four-Year Course Offering Plan for the Program.
   b. A budget worksheet.
   c. Board of Regents Program Action Request Form
   d. Board of Regents Prospectus and Executive Summary forms (www.alaska.edu/bor/policy-regulations/) which addresses all requirements and policies approved by the Statewide Academic Council (SAC) (http://www.alaska.edu/research/sac/) and the Board of Regents.
   e. Resource Implication Form and a signed Fee Request Form (if needed).
   f. An Academic Assessment Plan for review by the Academic Assessment Committee.
   g. A risk management plan where required. This is developed in conjunction with the program’s Dean/Director, the Director of Risk Management, and legal counsel as needed.

3. In addition to the above documents, the following must be submitted to the Governance Office. These documents will be reviewed by GAB for all new doctoral program proposals (aygov@uaa.alaska.edu):
   a. A cover memo summarizing the proposal.
   b. The full proposal document outlined in section 3.8
   c. Signed PAR (www.uaa.alaska.edu/governance/coordination/index.cfm).
      Note: The Governance Office will accept electronic signed PARs as long as all signatures up to the Dean/Director level are present and legible and the approved or disapproved boxes are checked.
   d. Complete catalog copy in Word using the track changes function, including student learning outcomes for the program or a web address linked to the student learning outcomes. A Word
7.5 Academic Program Suspension of Admissions

There are a variety of reasons why program faculty and academic deans/campus directors consider suspending admissions to an academic program. These may include, among others, temporary circumstances (e.g., insufficient faculty to meet substantial enrollment increases), planned major revisions to the program (e.g., deleting a track or changing the degree level), or potential program deletion (discussed in greater detail in the next section).

The following steps should be followed when suspending admissions to a program:

1. **Program Suspension:** Academic dean/campus director submits a memo to the provost requesting suspension of admission. Requests for suspension should indicate the implementation date, reason for the suspension, planned duration, impact on currently enrolled students and plans to advise and accommodate them during the suspension in accordance with each student’s catalog year, and identification of impact on other UAA programs or departments. By the conclusion of the fifth year of suspension, the academic dean or campus director must request, in consultation with program faculty, to reinstate admission, extend the suspension, or initiate the deletion process.

2. **Internal Notification:** Program suspensions should be communicated to faculty and administrators within the MAU according to the following guidelines.
   a. For programs offered on a community campus, the applicable academic dean or campus director (as determined by the UAA Catalog chapter in which the program is published) should be notified prior to the suspension of the program. For programs offered on multiple campuses, each applicable dean or campus director should be notified prior to suspension of the program.
   b. Faculty should be notified of program suspensions through an email to the faculty curriculum coordination listserv (uaa-faculty@lists.uaa.alaska.edu) and through inclusion as an information item on the Undergraduate Academic Board (for undergraduate programs) or Graduate Academic Board (for graduate programs) agenda.

3. **UA System and Accreditation Notification:** Following the approval of program suspension by the provost, Academic Affairs will notify the Statewide Academic Council (SAC) and Northwest Commission on Colleges and Universities (NWCCU). Program suspensions require notification to these bodies, not approval.

4. **Administrative Protocols:** The following are non-curricular considerations for program suspension.
   a. The provost has final approval authority for program suspensions. Once approved by the provost, the request is forwarded to the registrar to formally suspend admissions. The chancellor is notified of the action before notification goes to SAC and the NWCCU.
   b. Personnel implications will be addressed in accordance with applicable collective bargaining agreements and personnel policies and regulations. Program funds will be assigned to other department, college, or institutional priorities through established processes.
7.6 Academic Program Deletion

Program deletions may be initiated for a number of reasons. These may include, among others, low enrollment, few graduates, or changing job markets. After a period of suspension, and in conjunction with evidence collected from within and outside the institution, a decision can be made to modify, eliminate, or supersede the existing program with one more relevant. Considerations should include the impact on students currently enrolled in the program, on directly related employment sectors, and on other related departments within the university.

1. **Program Suspension:** Following the process described in the Program Suspension Policy, the academic dean/campus director submits a memo to the provost requesting suspension of admissions into the program, to ensure that no new students are admitted into the program until the final determination is made. Requests for suspension should indicate the implementation date, reason for the suspension, planned duration, and identification of impact on other UAA programs or departments. By the conclusion of the fifth year of suspension, the academic dean or campus director must request, in consultation with program faculty, to reinstate admission, extend the suspension, or initiate the deletion process.
   a. For programs offered on a community campus, the applicable academic dean or campus director (as determined by the UAA Catalog chapter in which the program is published) should be notified prior to the suspension of the program. For programs offered on multiple campuses, each applicable dean or campus director should be notified prior to suspension of the program.

2. **Consultation with Academic Affairs:** To initiate the program deletion process, consultation with OAA must occur. This consultation will include a discussion of the process and an overview of the templates required for program deletion. *OAA may waive or modify this requirement where appropriate, such as a program which has been suspended for more than five years with no currently enrolled majors.*
   a. The process will address the rationale for the proposed deletion, the demand for the program, the impact and implications on academic departments in UAA and other Major Academic Units (MAUs), impact on external stakeholders, the financial status of the program, and potential options to resolve the concerns which led to the proposed deletion.
   b. If the decision is to delete the program, programs must accommodate all currently admitted students with a completion plan that meets each student’s catalog deadlines and requirements. This completion plan should outline the timeframe and priorities for resources to accommodate completion of students impacted by the proposed program deletion.
   c. Proposals to delete programs offered on multiple campuses or through collaborative arrangements between two or more academic units should be coordinated with the academic deans and campus directors of the relevant program as is appropriate to their situations.

3. **Development of Proposal to Delete or Modify Program:** This proposal should be developed using the established curriculum approval process. If the department decides to modify the existing program, or to supersede it with a new program, the curriculum is developed as a *program change* so that deletion of the existing program and initiation of its replacement are approved simultaneously.

The following documents must be submitted to the Governance Office. These documents will be reviewed by the appropriate academic board for all program deletion proposals (uaa_gov@uaa.alaska.edu):
   a. A cover memo summarizing the proposal. A cover memo template can be found on the Governance curriculum website (www.uaa.alaska.edu/governance/coordination/index.cfm).
   b. Signed PAR (www.uaa.alaska.edu/governance/coordination/index.cfm).

   *Note: The Governance Office will accept electronic signed PARs as long as all signatures up to the Dean/Director level are present and legible and the approved or disapproved boxes are checked.*

Departments are also required to send an email to uaa-faculty@lists.uaa.alaska.edu explaining the program deletion. The email must include contact information, as well as:
• School and department (PAR boxes 1a and 1b),
• Complete Program Title (PAR box 2),
• Type of Program (PAR box 3),
• Type of Action (Add/Change/Delete) (PAR box 4),
• justification for action (PAR box 8),
• any other relevant information.

The email must be sent at least 10 working days before being presented at UAB/GAB.

4. **UA System and Accreditation Approval:** Following the internal curriculum approval process, Academic Affairs will work with program faculty to submit program deletions for approval by the Statewide Academic Council (SAC), Board of Regents, and Northwest Commission on Colleges and Universities (NWCCU).
   a. *Note: Authority to approve deletion of Occupational Endorsement Certificates and Workforce Credentials is delegated to the chancellor, and does not require action by SAC or the Board of Regents. These program deletions should be submitted to SAC for notification purposes and to the NWCCU for final approval.*

5. **Administrative Protocols:** The following are non-curricular considerations for program deletion.
   a. **Program Deletion from Banner:** When the program is deleted in Banner, students may no longer remain enrolled in the program, and the degree or certificate cannot be awarded. This administrative deletion will be postponed until there are no enrolled students in the major through graduation or expiration of admissions. Once approved by the NWCCU, the registrar will be notified to formally delete the program.
   b. **Personnel and Budget:** Personnel implications will be addressed in accordance with applicable collective bargaining agreements and personnel policies and regulations. Program funds will be assigned to other department, college, or institutional priorities through established processes.
   c. **Decisions Relative to Departments and Divisions:** This policy applies exclusively to academic programs. Decisions relative to departments and divisions will be managed within the college and institution through established processes.
Section 8 - Policy Additions and Changes

New or revised academic policies are proposed to the UAB/GAB. If approved they will be forwarded by the Governance Office to the UAA Faculty Senate, then to the OAA, and finally to the Chancellor’s Office.

UAA Proposals should include:

1. Proposed policy language (include catalog copy in Word using the track changes function if policy is revised).
2. Documents in which proposed language will be inserted (catalog, curriculum handbook, etc.).
3. Proposed implementation date.

Upon recommendation of the Provost, the Chancellor reviews and acts on academic policies.
Section 9 - Step-By-Step Instructions for the Course Content Guide

When developing a new course the CCG should be developed first. Considerations are: level, title, goals and student learning outcomes, content, and bibliography. This information is then transferred to the CAR. The Course Content Guide should provide a concise description of the course. Topical areas, instructional goals and student learning outcomes should be clearly related to each other. It is recommended that the CCG contain five or fewer pages. While there is not a standard template for the CCG, current CARs and CCGs can be found at http://curric.uaa.alaska.edu/curric/courses/.

It is also recommended that the faculty initiator consult with the school/college curriculum committee.

The CCG for new courses and course changes must include the following which will be transferred to the CAR:

1. **The date on which the Course Content Guide was initiated or revised**
2. **Information directly also on the CAR**
   
   A. **College or School** – Choose from the following the school or college initiating action:
      
      AA  Academic Affairs
      AS  College of Arts and Sciences
      CB  College of Business and Public Policy
      CH  College of Health
      CT  Community and Technical College
      EA  College of Education
      EN  School of Engineering
      HC  University Honors College
      KP  Kenai Peninsula College
      KO  Kodiak College
      MA  Matanuska-Susitna College

   B. **Course Prefix** – The prefix affected by the curriculum proposal. Approval of new prefixes must be obtained before the approval of related new/revised curriculum/program changes. See instruction on the PAR form regarding requesting a new prefix.

   C. **Course Number** (for a new course, contact the Office of the Registrar for a number)
      
      i. **Reuse of Course Number Rule:** When a permanent course number becomes inactive through deletion or purging, it will not be assigned to another course. However, a course can be reinstated using the same number.

      ii. **Types of Courses**

         a. **Academic Courses:** Courses with these numbers count toward undergraduate and graduate degrees and certificates as described. Each course includes a component for evaluation of student performance. Student effort is indicated by credit hours. One credit hour represents three hours of student work per week for a 15-week semester (e.g., one class-hour of lecture and two hours of study or three class-hours of laboratory) for a minimum of 750 minutes of total student engagement, which may include exam periods. Equivalencies to this standard may be approved by the chief academic officer of the university or community college. Academic credit courses are numbered as follows.

         The numbering sequence signifies increasing sophistication in a student’s ability to extract, summarize, evaluate and apply relevant class material. Students are expected to demonstrate learning skills commensurate with the appropriate course level, and to meet, prior to registration, prerequisites for all courses as listed with the course descriptions.
UAA and UA Course Level Descriptions (see also the UAA catalog, Chapter 7 and University Regulation R10.04.09):

- **Lower division courses usually taken by freshmen and sophomores**
  A100-A199: Freshman-level, lower division courses.
  A200-A299: Sophomore-level, lower division courses

- **Upper division courses usually taken by juniors and seniors**
  A300-A399: Junior-level, upper division courses
  A400-A499: Senior-level, upper division courses

- **Graduate-level courses**
  A600-A699: Require a background in the discipline, and an ability to contribute to written and oral discourse on advanced topics in the field.

  b. **Preparatory/Developmental Courses**
     A050-A099: Preparatory/developmental courses with these numbers provide basic or supplemental preparation for introductory college courses. They are not applicable to transcripted certificates or associate, baccalaureate, or graduate degrees, even by petition.

  c. **Noncredit Courses**
     A001-A049: Noncredit courses are offered as career development, continuing education, or community interest instruction. Not applicable to any degree or certificate requirements (even by petition).

  d. **Continuing Education Unit (CEU) courses**
     AC001-AC049: CEU courses are awarded upon completion of a course of study that is intended for career development or personal enrichment. CEU courses may not be used in degree or certificate programs or be converted to academic credit.

  e. **Professional Development Courses**
     A500-A599: Courses with these numbers are designed to provide continuing education for professionals at a post-baccalaureate level. These courses are not applicable to university degree or certificate program requirements, are not interchangeable with credit courses, even by petition, and may not be stacked with any other course.

**NOTE:** All permanent numbered courses (A050-A499 and A600-A699) are included in the UAA catalog. If a discipline/department/school/college/community campus does not want a permanent numbered course to be included in the UAA catalog, that exclusion will need UAB/GAB recommendation and approval of the Vice Provost for Undergraduate Academic Affairs (for undergraduate courses) or the Vice Provost for Research and Graduate Studies (for graduate courses).

iii. **Course Numbers: Second and Third Digits** – The second and third digits of course numbers in the -90 range are used for specific course types.

- **-90 Selected topics:** A generic “umbrella” course category identifying a defined field or subject area within a discipline. Topics can change from semester to semester within that field or subject area.

- **-92 Seminar or Workshops:**
  Seminar: Specifically designed for student participation in exchanging ideas and academic experiences around a central core of subject matter.
  Workshop: A formal higher education offering with intensive instruction and
information in a given field.

-93 **Special topics**: Offered only once to meet short-term needs and are not intended to become part of the permanent catalog.

-94 **Trial** (experimental): Trial indicates that the faculty wish to offer the course before making the course permanent. May be offered up to three times as a -94 course. Coordination with the faculty listserv (uaa faculty@lists.uaa.alaska.edu) for 094, 194, 294, 394, and 494 courses must occur at least 10 working days before submittal to the Governance Office.

-95 **Internship and Practicum**

  **Internship**: A student work experience in which the employer or agency is the student’s immediate supervisor, is active in planning the expected student learning outcomes, and is involved in the evaluation of the student’s achievements.

  **Practicum**: A student work experience for which the academic department established the objectives and student learning outcomes.

-97 **Independent study**: Address topics or problems chosen by the student with appropriate approval. Topics must not duplicate and must differ significantly from catalog courses.

-98 **Individual research**: Consist of individual research by the student, directly supervised by a faculty member or faculty committee.

-99 **Thesis**: Involve writing and/or completion of a thesis by the student.

D. **Number of Credits/CEUs and Contact Hours** – Include the number of semester credits or CEUs for the course. If variable, indicate the minimum and maximum, e.g. 1-3 credits or CEUs. The number of credits/CEUs is in direct relation to the contact hours. If the course is noncredit, enter the appropriate range of contact hours.

  - Over a 15-week semester, 1 contact hour is equivalent to 50 minutes.
  - One credit for a lecture course is typically equivalent to 1 contact hour/week for a total of 15 contact hours for the course (or 750 minutes of actual class time [50 minutes/contact hour x 15 contact hours = 750 minutes]).
  - One credit for a supervised laboratory course is typically awarded 2 contact hours/week for a total of 30 hours (2 x 15 weeks = 30) or 1,500 total contact minutes (30 x 50 minutes/contact hour = 1,500 minutes) of supervised lab time.
  - One credit of unsupervised laboratory time such as some practica, student teaching, internships, or field work credits is typically awarded 3 contact hours/week or more. Many courses, because of the nature of their subject matter or mode of delivery, require additional student time.
  - For a lecture course, at least two hours of work outside the class is expected for each credit. For a supervised laboratory class, in addition to 2 contact hours/week in the laboratory, at least one additional hour of outside work is expected for each credit (or a total of 3 contact hours/week in the laboratory will satisfy this requirement).
  - For courses that are provided in a period less than the standard 15-week semester, the (Lecture + Lab) section should be completed as if the course would be taught in a 15-week period. Additional description should be provided in Box 19 (“Justification for Action”) of the CAR and in the CCG to explain the actual course length and required hours per week. For noncredit CEU courses, the total number of lecture and laboratory contact hours for the course should be stated.
i. **Summary**

Semester = 15 weeks (standard semester length)

One (1) Contact Hour = 50 minutes per week (or 750 minutes for the course)

Outside Work = Additional time typically outside of classroom or laboratory

One (1) credit = 1 contact hour per week of lecture (15 contact hours of lecture for course)

\[ \text{or} \]

2 contact hours per week of supervised laboratory (or practica) if outside work is needed (30 contact hours for the course)

\[ \text{or} \]

3 contact hours per week of supervised laboratory (or practica) if no outside work is needed (45 contact hours for the course)

\[(\text{Lecture + Laboratory}) = \text{refers to the number of contact hours for lecture and laboratory per week based on a 15-week semester}\]

ii. **Examples**

- \((3+0)\) = A typical lecture-only course. Equivalent to a 3-credit course with 3 contact hours of lecture and 0 hours of laboratory per week for a total of 135 hours for the course [45 contact lecture hours (3 contact lecture hours/week x 15 weeks = 45) plus 90 hours outside work (6 hours outside lecture/week x 15 weeks = 90) for a total of 135 hours].

- \((2+2)\) = A combined lecture and laboratory course. Equivalent to a 3-credit course with 2 contact hours of lecture and 2 hours of supervised laboratory per week for a total of 135 hours for the course (30 contact hours of lecture and 60 hours outside lecture plus 30 hours lab plus 15 hours outside lab).

- \((3+2)\) = A combined lecture and laboratory course. Equivalent to a 4-credit course with 3 contact hours of lecture and 2 hours of supervised laboratory per week for a total of 180 hours for the course (45 contact hours of lecture and 90 hours outside lecture plus 30 hours of lab and 15 hours outside of lab).

- \((3+3)\) = A combined lecture and laboratory course. Equivalent to a 4-credit course with 3 contact hours of lecture and 3 hours of laboratory (supervised or unsupervised) per week for a total of 180 hours for the course (45 contact hours of lecture and 90 hours outside lecture plus 45 hours of lab and 0 hours outside of lab).

- \((0+9)\) = A practicum or field work type course. Equivalent to a 3-credit course with 0 contact hours of lecture and 9 hours of practicum or field work laboratory (supervised or unsupervised) per week for a total of 135 hours for the course (0 contact hours of lecture plus 135 hours of lab and 0 hours outside of lab).

iii. **CEU** – The CEU is a unit of measure for noncredit activities. The CEU can be used to document an individual’s participation in formal classes, courses, and programs as well as in nontraditional modes of noncredit education, including various forms of independent, informal, and experiential study and learning.
Examples:

0.1 CEU = 1 hour of instruction and no additional hours of work for the course.
1 CEU = 10 hours of instruction and no additional hours of work for course.
1.5 CEUs = 15 hours of instruction and no additional hours of work for course.
3.5 CEUs = 20 hours of instruction and 15 hours of required additional work appropriate to the objectives of the course for course.
2 CEUs = 20 hours of instruction and no additional work, or 40 hours of laboratory or clinical work.

iv. Minimum Course Length (Compressibility Policy) – The Compressibility Policy states, “Courses scheduled for less than a full semester may not be offered for more than one credit each week (seven days).” Two credits require a minimum of eight days and 3 credits require a minimum of 15 days.

E. Course Title – Insert full title of the course. Titles of existing courses in the data base cannot be used for new/revised courses, except for the following types of courses: dissertation, internship, practicum, project, research, selected topic, seminar, thesis.

F. Grading Basis – Identifies how performance in the course is to be graded (A-F or P/NP [pass/no pass] for academic and professional development courses; NG [no grade] for CEUs and noncredit offerings).

G. Implementation Date – Insert the semester and year that the addition, deletion or change will be implemented. See section 10.2, Box 11, for further clarification regarding implantation dates.

- Careful consideration needs to be given to permanent courses affecting degrees and certificates.

- Course additions or modifications must be made in conjunction with publication of the class schedule/listing. Since academic units are responsible for providing an adequate transition for students from one set of program requirements to another, units should consider the official implementation date of program changes when implementing the approved changes.

H. Cross Listing (if applicable) – Cross-listed courses are courses approved under multiple prefixes and offered at the same time and location.

i. Cross-listed courses are courses approved under multiple prefixes and offered at the same time and location.

ii. Each cross-listed course must have a separate CCG and CAR for each prefix.

iii. Everything except the course prefix must be identical.

iv. Each department is responsible for preparing and providing the appropriate CCG, CAR, supporting documentation. These must be submitted at the same time for UAB/GAB review.

v. When courses are cross-listed, they must be offered and printed in UAA’s schedules and catalog under each prefix. For example, JPC/JUST A413 is listed both in Justice and in Journalism and Public Communications. Cross-listed classes must be offered at the same time in a semester. Each department is responsible for the scheduling and schedule maintenance of their prefix’s section, including additions, changes and deletions.

I. Stacking (if applicable)

i. Stacked courses are courses from the same prefix but at different levels offered at the same time and location.
ii. Existing and new courses may not be stacked unless approved as stacked courses by UAB/GAB.

iii. Courses may not be stacked informally for scheduling purposes.

iv. The course description and course content guide of a stacked course must clearly articulate the difference in experience, performance and evaluation of students at different levels, including graduate students vs. undergraduate students.

v. Courses that are at the 500 level may not be stacked with any other course.

vi. If stacking status is requested, rationale must be provided.

vii. Courses at the 300 level may not be stacked with 600-level courses.

All graduate-level courses must meet certain criteria established by the GAB. In addition, when 400-level courses are stacked with 600-level courses, the faculty initiator must consider the impact of stacking the course on the graduate student experience and how that affects the criteria for 600-level courses. If a graduate-level course is stacked with a 400-level course, or if undergraduate students are taking the course as part of their baccalaureate degree, the justification must clearly describe how the quality of the graduate students’ experience will be maintained in a mixed-level classroom.

The following guidelines may assist in determining whether a course is suitable for stacking according to graduate criteria:

i. **Do the prerequisites (not registration restrictions) differ for the 400- vs. 600-level versions of the course?**
   It is difficult to justify stacked courses in which the graduates and undergraduates have a significantly different knowledge base relevant to the course material. If the knowledge is required for the course, the prerequisites must be comparable. If the knowledge is only required for extra coursework performed by the graduate students, this difference should be stated explicitly and addressed in the instructional goals, student learning outcomes and course activities sections of the CCG.

ii. **Is the course format predominantly discussion- or seminar-based?**
   This type of course is not likely to be suitable for stacking, as the discussion level/theoretical base can differ significantly between graduate and undergraduate students. In addition, the ratio between undergraduate and graduate students should be addressed. Courses that are evenly divided may provide a more balanced environment than a course in which only one or two graduate students are present.

iii. **Is the course format predominantly lecture-based? (Is the main intent of the course to provide a detailed knowledge set?)**
   a. **Is the PRIMARY source of information/reading the primary research literature of the field?**
      This course is not likely to be suitable for stacking, as undergraduate students generally lack the knowledge base and experience to derive all information from the primary literature.

   b. **Is the PRIMARY source of information/reading material derived from textbooks or other less-specialized literature?**
      This course is likely to be suitable for stacking. However, the performance expectations for graduate students should be explicitly defined, with special emphasis on how these expectations differ from the 400-level students.
Some suggested student learning outcomes/assessments that may be appropriate for 600-level students in a stacked course:

i. Extra reading assignments based in the primary research literature, evaluated via written critical reviews and/or oral presentations

ii. Extra writing assignments that evince ability to synthesize research fields (comprehensive scholarly reviews or synthesis of other disciplinary areas with the course material)

iii. Assignments to measure the ability of graduate students to integrate course material into experimental design, such as writing formal research grant proposals, or oral or written presentation of how the course material informs the student’s own thesis research

iv. Separate exams for graduate students that measure not only comprehension of the lecture material but the ability to integrate and apply the material at more advanced levels, such as hypothesis formulation and experimental design, or the ability to interpret raw research data

v. Teaching experiences, in which graduate students instruct undergraduates, lead discussion groups or present analysis of primary research, offer another context in which graduate students may demonstrate and more advanced knowledge and be assessed accordingly.

As a result of completing this course, students will be able to:

<table>
<thead>
<tr>
<th>Student Learning Outcomes</th>
<th>Typical Assessments</th>
</tr>
</thead>
<tbody>
<tr>
<td>demonstrate the ability to conduct a literature search on the course topic material</td>
<td>written critical reviews and/or oral presentation of literature reviews</td>
</tr>
<tr>
<td>Synthesize research fields</td>
<td>comprehensive scholarly reviews or synthesis of other disciplinary areas with the course material produced by the student</td>
</tr>
<tr>
<td>Integrate course material into experimental design</td>
<td>Written formal research grant proposals, oral or written presentation of how the course material informs the student’s own thesis research</td>
</tr>
<tr>
<td>Integrate and apply the course material at advanced levels</td>
<td>Exams requiring students to formulate hypothesis, design experiments, or interpret raw research data</td>
</tr>
<tr>
<td>Instruct undergraduates, lead discussion groups, or otherwise present the course material to other audiences.</td>
<td>Observed teaching exercises, teaching evaluations, performance of their students on examinations</td>
</tr>
</tbody>
</table>

J. **Course Description** – Identifies the intent of the course. For courses, a 20- to 50-word description is preferred.

**Special Notes** are also identified in this field. Special notes indicate certain requirements of the student or the course that are not identified in the course description (e.g., “May be repeated for credit with a change in subtitle,” or “Offered Spring Semesters”).

K. **Course Attributes** (GER if applicable)

L. **Course Prerequisite(s)/Test Score(s), Corequisite(s), Registration Restriction(s)** – Identifies requirements which must be achieved prior to enrolling in a course. It is assumed that faculty may waive any of the requirements. All prerequisite, corequisite; registration restriction, etc indicated on the CAR will be automatically enforced through Banner.
i. **Course Prerequisite** – Identifies a course (by prefix and number) which must be successfully completed (D or better is understood, unless C or better is stated) prior to taking the course.

A course prerequisite which **may** be taken concurrently must also be included in this area (this differs from a co-requisite which **must** be taken concurrently).

**Test Scores** – Identifies test scores which must be successfully achieved prior to taking the course. This may include UAA approved placement tests, SAT, ACT, or others. Specific test scores are not required.

ii. **Corequisites** – Identifies a course which **must** be taken concurrently and requires simultaneous enrollment and withdrawal.

iii. **Other Restrictions** – Identifies additional requirements that a student must have satisfied prior to registering for the course (e.g. instructor permission, college or school admission, major, class standing, or level). Must be enforced by the program/department/ instructor.

a College or school admission – identifies a college/school to which a student must be admitted in order to enroll in the course.

b Major – identifies a major which a student must have declared in order to enroll in the course.

c Class – identifies a class standing which a student must have attained in order to enroll in the course (0-29 credits = freshmen; 30-59 credits = sophomore; 60-89 = junior, 90+ = senior).

d Level – identifies a level which a student must be at in order to enroll in the course (graduate or undergraduate).

Responsibility for confirming prerequisites and registration restrictions lies with the department. It is assumed that the faculty may waive or enforce any of these requirements, subject to program, department and college policy.

M. **Course Fee:** Yes or No – Indicates that there are student fees associated with the course.

*Note: The sections of the CAR referenced above and the CCG must match word for word.*

3. **Course level justification** – Provide a justification for the level to which the course has been assigned.

**Course Level Expectations for Academic Course Levels** – In general, advances in course level (lower, upper, and graduate) correlate with sophistication of academic work. It should be noted that some students find introductory courses more demanding than advanced, specialized courses. In such courses, a more comprehensive approach and the first exposure to new ways of thinking may be harder for some individuals than covering a smaller, more familiar area in much greater detail.

The following definitions describe the expectations for the academic course levels:

A. **Lower Division Courses**

A100-A199: Introduce a field of knowledge and/or develop basic skills. These are usually foundation or survey courses.

A200-A299: Provide more depth than 100-level courses and/or build upon 100-level courses. These courses may connect foundation or survey courses with advanced work in a given field, require previous college experiences, or develop advanced skills.

B. **Upper Division Courses**
Require a background in the discipline recognized through course prerequisites, junior/senior standing or competency requirements. These courses demand well-developed writing skills, research capabilities and/or mastery of tools and methods of the discipline.

A300-A399: Build upon previous course work and require familiarity with the concepts, methods, and vocabulary of the discipline.

A400-A499: Require the ability to analyze, synthesize, compare and contrast, research, create, innovate, develop, elaborate, transform, and/or apply course materials to solving complex problems. These courses are generally supported by a substantial body of lower-level courses.

C. Graduate-Level Courses

A600-A699 – Require a background in the discipline, and an ability to contribute to written and oral discourse on advanced topics in the field at a level beyond that required by a bachelor’s degree. Require the ability to read, interpret and evaluate primary literature in the field. Students analyze raw data, evaluate models used in research and draw independent conclusions. Preparation includes demonstrated accomplishment in a specific course or discipline, or completion of a significant and related program of studies. Student activities are often self-directed and aimed not only at the formation of supportable conclusions, but also at a clear understanding of the process used in those formations.

For graduate-level coursework the justification must:

i. Address descriptors of 600-699 courses from Chapter 7 of the UAA catalog.

ii. Specify registration restrictions, e.g. “Admission to **** degree/certificate program” or “Graduate Status” where appropriate.

iii. State the disciplinary background.

iv. Specify prerequisites, e.g. “Graduate Status.”

v. Describe how the course provides students with opportunities for independent critical thinking.

vi. Describe how the course enables students to meet the following goals when they are appropriate to the field:

a. Competence in a specialized field of knowledge

b. Extensive experience with specialized client relationships

c. Application of expert knowledge within a recognized professional practice

d. Analysis and synthesis of primary scholarship or research

e. Self-directed written research projects

f. Mastery of theoretical knowledge

Course Level Expectations for Preparatory/Developmental Course Levels – The following definitions describe the expectations for the preparatory/developmental course levels (courses not applicable to transcripted certificates or associates, baccalaureate or graduate degrees):

A050-A099: Provide supplemental preparation for introductory college courses.

4. Instructional Goals and Student Learning Outcomes

A. Instructional Goals: Identifies what the instructor intends to accomplish in the course.

   Instructional goals should describe in broad terms what the instructor expects the student to learn from the course.
B. **Student Learning Outcomes:** Identifies what the student should know and/or be able to do as a result of completing the course. Student learning outcomes must be specific, measurable, achievable, relevant and timely. Student evaluation methods must assess the accomplishment of the students in each outcome.

C. **Goals and Student Learning Outcomes:** Should be clearly related to the appropriate course level. See course level definitions below and in the discussion of CAR Box 3 in section 5 of this handbook. The verbs listed in Appendix C are gathered into categories designed to assist in the description of student outcomes.

5. **Guidelines for Evaluation or Assessment Methods**

A. Program Student learning outcomes and their assessments are treated in detail in the program’s Academic Assessment Plan. This plan is evaluated for new and modified programs.

B. Student learning outcomes for courses are included in the CCG along with the means used to assess them. A tabular representation of student learning outcomes and typical assessment methods is preferred by GAB. UAB currently accepts tabular or bulleted versions. See examples below.

C. Identify typical evaluation methods appropriate to the level and type of course for determining how well the goals and student learning outcomes have been met. The level of detail given here should be sufficient to give instructors guidance concerning the nature and rigor of the evaluation techniques expected without unduly restricting teaching methods.

*Note: All academic programs at UAA are assessed. Student learning outcomes for courses should be compatible with Program Student Learning Outcomes and should be assessed in similar ways. For more detailed information about assessment, see Appendix E. For specific information about your program’s assessment procedures, see the college assessment coordinator.*

**Example 1**

<table>
<thead>
<tr>
<th>Student Learning Outcomes</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students demonstrate the ability to distinguish between facts and opinions and determine</td>
<td>Performance on two separate short papers criticizing published arguments</td>
</tr>
<tr>
<td>the extent to which the facts provided support the arguments being made.</td>
<td>on both sides of a controversial issue.</td>
</tr>
<tr>
<td>Students demonstrate the ability to troubleshoot and repair a microprocessor based</td>
<td>Performance on practical project assigned in lab. Performance on projects</td>
</tr>
<tr>
<td>instrument system according to manufacturer’s standards</td>
<td>assigned during internship</td>
</tr>
<tr>
<td>Students demonstrate skill in the use of various media in the artistic expression of</td>
<td>Peer and faculty review and rating according to established departmental</td>
</tr>
<tr>
<td>human emotion</td>
<td>criteria of studio projects in at least three types of media.</td>
</tr>
<tr>
<td>Students demonstrate the ability to design an electro-mechanical system to accomplish a</td>
<td>Demonstration of successful functioning of the system through simulation</td>
</tr>
<tr>
<td>control function defined by the instructor, in accordance with applicable standards and</td>
<td>or mock-up.</td>
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<tr>
<td>codes.</td>
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</tbody>
</table>

**Example 2**

**Instructional Goals:**
This course is designed to fulfill the needs of general education requirements and to provide a foundation in general chemistry specifically for health science majors. It is intended to be a survey of general and organic chemistry with significant emphasis on health-related material. The periodic table, atomic and molecular structure, bonding, and chemical reactions, skills in measurements, balancing chemical equations and problem solving are emphasized.

The instructor will:
1. Present models of the periodic table, atomic and molecular structure, chemical bonding and reactions for development of observational skills and conceptual foundations in chemistry.
2. Present questions to initiate discussion, help students differentiate, link and integrate ideas and develop their own concepts, to articulate their thinking and explain models and solutions.
3. Provide multiple human health-related contexts for applying concepts and invite students to defend and verify their models and their solutions to problems.

**Student Learning Outcomes:**
After completing this course, the student will be able to:
1. Recognize and interpret chemical models of the periodic table, atomic and molecular structure, bonding and chemical reactions.
2. Apply science methodology with emphasis on exploring and verifying measurements and chemical equations in health-related problems rather than memorizing facts and answering “algorithmic” questions.
3. Demonstrate effective, efficient communication skills for discussing, chemistry concepts across multiple human-health related contexts including historical discoveries and technological advances.

**Assessment Measures:**
Various assessment tools can be used at the instructor’s discretion, including: quizzes, in-class presentations, short reports, take-home exams, creative work, homework, and a comprehensive standardized exam.

6. **Topical course outline (not a syllabus)** – List the topics covered each time the course is taught (additional topics may be covered in the course). Topical areas, instructional goals and student learning outcomes should be clearly related to each other.

For selected topics courses, provide a topical outline (not a syllabus) of a sample course and a discussion on the range of topics to be presented and the expected depth of the typical presentation.

7. **Suggested text(s)** – Provide current suggested texts or recommended readings in alphabetical order. Similar texts are expected to be used in the actual course. Texts should be current (published within the last ten years) unless they are classics in the discipline.

8. **Bibliography** – Provide a list of the literature, in alphabetical order, that forms a foundation for the ideas and/or skills to be taught in the course. The concise and selective bibliography indicates texts, papers and other resources that the students and the instructor will find particularly valuable in meeting the course student learning outcomes.

Suggested texts and bibliography should be presented in an acceptable style (e.g. APA, MLA, or Gregg). Be prepared to identify the style used.
Section 10 - Step-By-Step Instructions for the Course Action Request

Please visit the course search website (http://www.curric.uaa.alaska.edu/course_search.cfm) for assistance in filling out your Curriculum Action Request (CAR) form. This searchable website provides box-by-box information for active courses that can be easily transferred to the boxes on the CAR form.

10.1 The CAR Form

Course Action Request
University of Alaska Anchorage
Proposal to Initiate, Add, Change, or Delete a Course

<table>
<thead>
<tr>
<th>1a.</th>
<th>1b.</th>
<th>1c.</th>
</tr>
</thead>
<tbody>
<tr>
<td>School or College</td>
<td>Division</td>
<td>Department</td>
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<tr>
<th>2.</th>
<th>3.</th>
<th>4a.</th>
<th>4b.</th>
<th>5a.</th>
<th>5b.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Prefix</td>
<td>Course Number</td>
<td>Previous Course Prefix &amp; Number</td>
<td>Credits/CEUs</td>
<td>Contact Hours</td>
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<th>6.</th>
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<td>Complete Course Title</td>
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<th>7.</th>
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<tbody>
<tr>
<td>Type of Course</td>
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<tr>
<td>Academic</td>
<td>Preparatory/Development</td>
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<th>8.</th>
<th></th>
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<tbody>
<tr>
<td>Type of Action</td>
<td>Add</td>
</tr>
<tr>
<td>If a change, mark appropriate boxes:</td>
<td></td>
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<th>9.</th>
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<tr>
<td>Repeat Status</td>
<td># of Repeats</td>
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<tr>
<th>10.</th>
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<tr>
<td>Grading Basis</td>
<td>A-F</td>
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<th>11.</th>
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<tr>
<td>Implementation Date</td>
<td>Semester/Year</td>
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<td>From:</td>
<td>To:</td>
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<th>12.</th>
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<tbody>
<tr>
<td>Cross Listed with</td>
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<tr>
<td>Stacked with</td>
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<table>
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<tr>
<th>13a.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Impacted Courses or Programs: List any programs or college requirements that require this course.</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>13b.</th>
<th>13c.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordination Email Date</td>
<td>Coordination with Library Liaison Date</td>
</tr>
<tr>
<td>Submitted to Faculty Liaison: (use faculty liaison at curric.uaa.alaska.edu)</td>
<td></td>
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<tr>
<th>14.</th>
<th></th>
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<tbody>
<tr>
<td>General Education Requirement</td>
<td></td>
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<tr>
<td>Major and appropriate box</td>
<td></td>
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</table>

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<tr>
<th>15.</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Course Description (approx. length 30 to 50 words)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>16a.</th>
<th>16b.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Prerequisite(s) (list prefix and number or test code and score)</td>
<td>Co-requisite(s) (concurrent enrollment required)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>16c.</th>
<th>16d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Restriction(s)</td>
<td>Registration Restriction(s) (non-coedicale)</td>
</tr>
</tbody>
</table>

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<tr>
<th>17.</th>
<th>18.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mark if course has fees</td>
<td>Mark if course is a selected topic course</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>19.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Justification for Action</td>
<td></td>
</tr>
</tbody>
</table>

Initiator (Faculty only) Date

Initiator (Type Name)

Approved | Disapproved

Initiator (Department Chair)

Approved | Disapproved

Undergraduate/Graduate Academic Board Chair

Approved | Disapproved

Provost or Designee
10.2 Instructions for Completing the CAR

Box 1a. School or College
Choose from the drop-down menu the school or college initiating action.
AA Academic Affairs
AS College of Arts and Sciences
CB College of Business and Public Policy
CH College of Health
CT Community and Technical College
EA College of Education
EN School of Engineering
HC University Honors College
KP Kenai Peninsula College
KO Kodiak College
MA Matanuska-Susitna College

Box 1b. Division
Using the drop-down box, insert the division initiating action. *Note: Changing the name of a division or academic department requires Provost approval and memorandum to Governance as an informational item.*

College of Arts and Sciences
AFAR Division of Performing and Fine Arts
AHUM Division of Humanities
AMSC Division of Mathematical and Natural Sciences
ASSC Division of Social Sciences

College of Business and Public Policy
ADBP Division of Business Programs
ADEF Division of Economics and Public Policy

Community and Technical College
AAVI Division of Aviation Technology
ABCT Division of Computer Networking and Office Technologies
ACAH Division of Culinary Arts and Hospitality
ACDT Division of Construction and Design Technology
ADCE Division of Community Education
ADTP Division of Transportation and Power
ADVE Division of Career and Technical Education
APER Division of Physical Education and Recreation
APRS Division of Preparatory Studies

College of Education
No Division Code

School of Engineering
No Division Code

College of Health
AHLS Division of Health and Safety
ADHS Division of Human Services and Health Sciences
ADSN Division of Nursing
AJUS Division of Justice
ASWK Division of Social Work
Box 1c. Department
Insert department initiating action. *Note: Changing the name of a division or academic department requires Provost approval and a memorandum to Governance as an informational item.*

Box 2. Course Prefix
Insert the course prefix affected by the curriculum proposal. Approval of new course prefixes must be obtained before the approval of related new/revised curriculum/program changes. *See instruction on the PAR form regarding requesting a new prefix in Section 11.*

Box 3. Course Number
Insert the course number. If a new number is indicated, then check with the Curriculum Specialist in the Office of the Registrar (aypublications@uaa.alaska.edu).

*Reuse of Course Number Rule:* When a permanent course number becomes inactive through deletion or purging, it will not be assigned to another course. However, a course can be reinstated using the same number.

1. Types of Courses
   A. Academic Credit Courses

   Courses numbered A100-A499 and A600-A699 count toward undergraduate and graduate degrees and certificates. Each course includes a component for evaluation of student performance. Student effort is indicated by credit hours. One credit hour represents three hours of student work per week for a 15-week semester (e.g., one class-hour of lecture and two hours of study or three class-hours of laboratory) for a minimum of 750 minutes of total student engagement, which may include exam periods. Equivalencies to this standard may be approved by the chief academic officer of the university or community college. Academic credit courses are numbered as follows.

   The numbering sequence signifies increasing sophistication in a student’s ability to extract, summarize, evaluate and apply relevant class material. Students are expected to demonstrate learning skills commensurate with the appropriate course level, and to meet, prior to registration, prerequisites for all courses as listed with the course descriptions.

   UAA and UA course level descriptions (see also the UAA catalog, Chapter 7 and University Regulation R10.04.09):

   i. *Lower division courses usually taken by freshmen and sophomores*
      
      A100-A199: Freshman-level, lower division courses.
      A200-A299: Sophomore-level, lower division courses

   ii. *Upper division courses usually taken by juniors and seniors*

      A300-A399: Junior-level, upper division courses
      A400-A499: Senior-level, upper division courses

   iii. *Graduate-level courses*

      A600-A699 – require a background in the discipline, and an ability to contribute to written and oral discourse on advanced topics in the field.

   B. Preparatory/Developmental Courses

   Courses with these numbers (A050-A099) provide basic or supplemental preparation for introductory college courses. They are not applicable to transcripted certificates or associate, baccalaureate, or graduate degrees, even by petition.
C. **Noncredit Courses**

**A001-A049:** Noncredit courses are offered as career development, continuing education, or community interest instruction. Not applicable to any degree or certificate requirements (even by petition).

D. **Continuing Education Unit (CEU) courses**

**AC001-AC049:** CEU courses are awarded upon completion of a course of study that is intended for career development or personal enrichment. CEU courses may not be used in degree or certificate programs or be converted to academic credit.

E. **Professional Development Courses**

**A500-A599:** Courses with these numbers are designed to provide continuing education for professionals at a post-baccalaureate level. These courses are not applicable to university degree or certificate program requirements, are not interchangeable with credit courses, even by petition, and may not be stacked with any other course.

**NOTE:** All permanent numbered courses (A050-A499 and A600-A699) are included in the UAA catalog. If a discipline/department/school/community campus does not want a permanent numbered course to be included in the UAA catalog, that exclusion will need UAB/GAB recommendation and approval of the Vice Provost for Undergraduate Academic Affairs (for undergraduate courses) or Vice Provost for Research and Graduate Studies (for graduate courses).

1. **Course Numbers: Second and Third Digits**

The second and third digits of course numbers in the -90 range are used for specific course types.

-90 **Selected topics:** These are a generic “umbrella” course category identifying a defined field or subject area within a discipline. These courses allow departments to offer new topics in a discipline as demand warrants, and to keep the curriculum up to date. Subject matter of selected topics courses within a discipline is chosen to provide instruction not covered by regular catalog offerings. May be offered as a seminar, lecture, laboratory or workshop. There is no limit to the number of times a selected topic subtitle may be offered.

-92 **Seminar or Workshops**

**Seminar:** Specifically designed for student participation in exchanging ideas and academic experiences around a central core of subject matter.

**Workshop:** A formal higher education offering with intensive instruction and information in a given field.

-93 **Special topics:** Offered only once to meet short-term needs and are not intended to become part of the permanent catalog.

-94 **Trial** (experimental): Trial indicates that the faculty wish to offer the course before making the course permanent. May be offered up to three times as a -94 course.

-95 **Internship and Practicum**

**Internship:** A student work experience in which the employer or agency is the student’s immediate supervisor, is active in planning the expected student learning outcomes, and is involved in the evaluation of the student’s achievements.

**Practicum:** A student work experience for which the academic department established the objectives and student learning outcomes.

-97 **Independent study:** Address topics or problems chosen by the student with appropriate approval. Topics must not duplicate and must differ significantly from catalog courses.
Box 4. **Previous Course Prefix & Number**
Indicate if the course was offered previously under a different prefix and/or number, including -93s or -94s, and what that number was. If the course was not offered previously, insert “N/A.” or if the prefix and the number has not changed, insert “N/A.”

Reinstatement of a course
When an inactive course is being reinstated with the same course prefix and number, place the word *Reinstate* in box 4. In box 8, Type of Action, select *change*.

Box 5a. **Credits/CEUs**
Insert the number of semester credits or CEUs for the course. If variable, indicate the minimum and maximum, e.g. 1-3 credits or CEUs. The number of credits/CEUs is in direct relation to the contact hours. If the course is noncredit, enter the appropriate range of contact hours.

Box 5b. **Contact Hours (Lecture + Lab) per week (15-week semester)**
Insert the number of lecture and laboratory (or practicum) hours each week for the course that is offered over a 15-week semester. One contact hour is equivalent to 50 minutes.

One credit for a lecture course is typically equivalent to 1 contact hour/week for a total of 15 contact hours for the course [or 750 minutes of actual class time (50 minutes/contact hour x 15 contact hours = 750 minutes)].

One credit for a supervised laboratory course is typically awarded 2 contact hours/week for a total of 30 hours (2 x 15 weeks = 30) or 1,500 total contact minutes (30 x 50 minutes/contact hour = 1500 minutes) of supervised lab time.

One credit of unsupervised laboratory time such as some practica, student teaching, internships, or field work credits, is typically awarded 3 contact hours/week or more. Many courses, because of the nature of their subject matter or mode of delivery, require additional student time.

For a lecture course, at least two hours of work outside the class is expected for each credit. For a supervised laboratory class, in addition to 2 contact hours/week in the laboratory, at least one additional hour of outside work is expected for each credit (or a total 3 contact hours/week in the laboratory will satisfy this requirement).

For courses that are provided in a period less than the standard 15-week semester, the (Lecture + Lab) section should be completed as if the course would be taught in a 15-week period. Additional description should be provided in Box 19 ("Justification for Action ") of the CAR and in the CCG to explain the actual course length and required hours per week. For noncredit CEU courses, the total number of lecture and laboratory contact hours for the course should be stated.

1. **Summary**
   
   Semester = 15 weeks (standard semester length)
   
   One (1) Contact Hour = 50 minutes per week (or 750 minutes for the course)
   
   Outside Work = Additional time typically outside of classroom or laboratory
   
   One (1) credit = 1 contact hour per week of lecture (15 contact hours of lecture for course)
   
   or 2 contact hours per week of supervised laboratory (or practica) if
outside work is needed (30 contact hours for the course)

or

3 contact hours per week of supervised laboratory (or practica) if no outside work is needed (45 contact hours for the course)

(Lecture + Laboratory) = refers to the number of contact hours for lecture and laboratory per week based on a 15-week semester

2. Examples

- (3+0) = A typical lecture-only course. Equivalent to a 3-credit course with 3 contact hours of lecture and 0 hours of laboratory per week for a total of 135 hours for the course [45 contact lecture hours (3 contact lecture hours/week x 15 weeks = 45) plus 90 hours outside work (6 hours outside lecture/week x 15 weeks = 90) for a total of 135 hours].

- (2+2) = A combined lecture and laboratory course. Equivalent to a 3-credit course with 2 contact hours of lecture and 2 hours of supervised laboratory per week for a total of 135 hours for the course (30 contact hours of lecture and 60 hours outside lecture plus 30 hours lab plus 15 hours outside lab).

- (3+2) = A combined lecture and laboratory course. Equivalent to a 4-credit course with 3 contact hours of lecture and 2 hours of supervised laboratory per week for a total of 180 hours for the course (45 contact hours of lecture and 90 hours outside lecture plus 30 hours of lab and 15 hours outside of lab).

- (3+3) = A combined lecture and laboratory course. Equivalent to a 4-credit course with 3 contact hours of lecture and 3 hours of laboratory (supervised or unsupervised) per week for a total of 180 hours for the course (45 contact hours of lecture and 90 hours outside lecture plus 45 hours of lab and 0 hours outside of lab).

- (0+9) = A practicum or field work type course. Equivalent to a 3-credit course with 0 contact hours of lecture and 9 hours of practicum or field work laboratory (supervised or unsupervised) per week for a total of 135 hours for the course (0 contact hours of lecture plus 135 hours of lab and 0 hours outside of lab).

3. The CEU

The CEU is a unit of measure for noncredit activities. The CEU can be used to document an individual’s participation in formal classes, courses, and programs as well as in nontraditional modes of noncredit education, including various forms of independent, informal, and experiential study and learning.

Examples:

- 0.1 CEU = 1 hour of instruction and no additional hours of work for the course
- 1 CEU = 10 hours of instruction and no additional hours of work for course
- 1.5 CEUs = 15 hours of instruction and no additional hours of work for course
- 3.5 CEUs = 20 hours of instruction and 15 hours of required additional work appropriate to the objectives of the course for course
- 2 CEUs = 20 hours of instruction and no additional work, or 40 hours of laboratory or clinical work

4. Minimum Course Length (Compressibility Policy)

The Compressibility Policy states: “Courses scheduled for less than a full semester may not be offered for more than 1 credit each week (seven days).” Two credits require a minimum of eight days and 3 credits require a minimum of 15 days.

Box 6. Complete Course Title

Insert full title of the course/program. If the title of the course is greater than 30 characters (including spaces), insert a title of 30 characters or less (including spaces) in the field underneath the full title. This abbreviated title will
appear on transcripts. Abbreviations used should be readily recognizable or accepted abbreviations within the discipline. Titles of existing courses in the database cannot be used for new/revised courses, except for the following types of courses: dissertation, internship, practicum, project, research, selected topic, seminar, thesis.

Box 7. Type of Course
Identifies type of course offered.

1. Academic Courses (numbered 100-499 and 600-699)
   A. Program Requirement - A credit course specifically required by degree, certificate, or a Minor program.
   B. Program Selective - A credit course within a group of courses from which a student is required to select.
   C. General Education Requirement - A credit course that is approved to fulfill part of the general education distribution requirements of the University.
   D. Elective - A credit course selected by the student that is neither a degree program requirement nor a program selective, but which is applicable towards the minimum number of credits required for the degree or certificate.

2. Preparatory/Developmental Courses (050-099): Preparatory/Developmental courses with these numbers provide basic or supplemental preparation for introductory college courses. They are not applicable to transcripted certificates or associate, baccalaureate, or graduate degrees, even by petition. (See Box 3. Course Number, for further information).

3. Nondegree Courses
   A. Noncredit Courses (000-049) - These are noncredit and nondegree courses, programs, and/or activities that respond to relevant community education needs and interests and that typically do not have specifically defined student learning outcomes.
   B. CEUs (denoted by “AC” rather than just “A” before course number) - A course that provides further development of a trade, profession, or personal improvement.
   C. Professional Development Courses (A500-A599) - Designed to provide continuing education for professionals at the post-baccalaureate level. These courses are not applicable to university degree or certificate program requirements, are not interchangeable with credit courses, even by petition, and may not be stacked with any other course. (See Box 3. Course Number, above for further information).

Box 8. Type of Action
Identifies whether the CAR is for a course addition, change, or deletion. If the action is a course change, identify all the changes being made.

If the course change results in a program change, a separate PAR must be completed for each action and must identify the element(s) being changed.

If a permanent number is being requested after the course has run successfully as a -93 or -94, this is an addition, not a change, since the addition of a permanent course is being proposed.

Box 9. Repeat Status
Identifies the Repeat Status of the course.

- Yes means the course may be repeated for credit
- No means it cannot be repeated for credit

If repeat status is marked as Yes, the Number of Repeats and Maximum Hours must be indicated.
The Number of Repeats indicates the number of additional times the course may be taken for credit (does not include the original enrollment). The Maximum Hours indicates the total number of credits that may be applied towards a degree.

**Example**

HIST A390  3 credits

Repeat Status: Yes  Number of Repeats: 1  Max Credits: 6

**Box 10. Grading Basis**

Identifies how performance in the course is to be graded (A-F or P/NP [Pass/No Pass] for academic and professional development courses; NG [no grade] for CEUs and noncredit offerings).

**Box 11. Implementation Date**

Using the drop-down menus, insert the semester and year that the addition, deletion, or change will be implemented.

1. **Courses**

   The end semester is needed for nonpermanent courses only (-93s, -94s, bridge courses). For permanent courses, leave the semester field blank and 9999 for the end year. Careful consideration needs to be given to permanent courses affecting degrees and certificates. New programs and courses may be added for any term; however changes to existing programs can only have a fall implementation date. Careful consideration needs to be given to ensure final approval can be made prior to printing of catalog. For this reason it is suggested that changes to programs be ready for first reading no later than first week of March.

   Course additions or modifications must be made in conjunction with publication of the class schedule. Since academic units are responsible for providing an adequate transition for students from one set of program requirements to another, units should consider the official implementation date of program changes when implementing the approved changes. The current production calendar can be found on the Governance website at [www.uaa.alaska.edu/governance](http://www.uaa.alaska.edu/governance). New course offerings have greater flexibility but implementation dates for course changes will not be allowed for a term in which registration has already begun. When a course change is required as part of a program change for fall semester, first readings for the course should take place no later than the first week in February. This is to ensure final approval prior to fall registration opening.

2. **Program or Academic Policy**

   The overall principles affecting the date for implementation of academic policy or program change include the following:

   A. **Students must receive adequate notice of a program change.**
   
   B. **Staff must have adequate time to implement the change effectively.**

   Generally this is interpreted to mean that program changes, including new programs, must be advertised in the university catalog.

   Based on the current schedule of catalog distribution in the spring or summer, most program changes should take effect in the fall semester following catalog distribution. Exception to this policy will be made only in exceptional circumstances. Permission of the OAA is required for implementation at an earlier date. Requests for an earlier date must detail the procedures the academic unit will use to notify affected students and facilitate the transition to the new requirements.

**Box 12. Cross-Listed or Stacked**

1. **Cross-listed**
A. Cross-listed courses are courses approved under multiple prefixes and offered at the same time and location.

B. Each cross-listed course must have a separate CAR for each prefix.

C. Everything except the course prefix must be identical.

D. The department chair of the coordinating department must signify approval of the cross-listing by signing Box 12 of the CAR.

E. Each department is responsible for preparing the appropriate CAR and providing supporting documentation. These must be submitted at the same time for UAB/GAB review.

F. When courses are cross-listed, they must be offered and printed in UAA’s schedules and catalog under each prefix. For example, ART/JPC A324 is listed both under Art and Journalism and Public Communications.

2. Stacked

A. Stacked courses are courses from the same prefix but at different levels offered at the same time and location.

B. Existing and new courses may not be stacked unless approved as stacked courses by UAB/GAB.

C. Courses may not be stacked informally for scheduling purposes.

D. The course description and course content guide of a stacked course must clearly articulate the difference in experience, performance, and evaluation of students at different levels, including graduate students vs. undergraduate students.

E. Courses at the 300 level may not be stacked with 600-level courses.

F. A500-A599 level (professional development) courses may not be stacked with any other course.

G. If stacking status is requested, rationale must be provided.

If the graduate-level course is stacked with a 400-level course, or if undergraduate students are taking the course as part of their baccalaureate degree, the justification must clearly describe how the quality of the graduate students’ experience will be maintained in a mixed-level classroom. (See Section 9 for guidance on the CCG.)

Box 13a. Impacted Courses or Programs

Do NOT complete Box 13a for new courses.

The intent of Box 13a is twofold:

1. To provide a list of all courses, programs, college requirements, and catalog copy that contain reference to the course under revision in the current UAA catalog. This includes the initiating department.

2. To document coordination* with impacted programs and departments.

If the course revision impacts the program catalog copy of the initiating department, a Program/Prefix Action Request must be completed and submitted with track-changed catalog copy.

The current catalog copy in Word is available on the Governance website (www.uaa.alaska.edu/governance).

In order to find courses and programs impacted by this revision, use the .pdf file provided on the Office of the Registrar’s website (http://uaa.alaska.edu/records/catalogs/catalogs.cfm). Open the link to the latest catalog and use the find function in Adobe to search for the course prefix and number. You should fill out a line of the table for every program, (including type of degree, e.g. AA, AAS, BA, BS, MA, MS, Certificate), course, or college requirement that the revised course appears in.
Three or fewer lines (impacts) can be recorded directly into the table on the CAR. **More than three requires the creation of a separate coordination spreadsheet** is required listing the impacted programs or courses, the specific impact (e.g. program requirement, program selective**, credits required, prerequisite, corequisite, registration restriction), type and date of coordination, and the name of the department chair/coordinator contacted. An example of the Box13a. spreadsheet can be found on the Governance website at [http://uaa.alaska.edu/governance/coordination/index.cfm](http://uaa.alaska.edu/governance/coordination/index.cfm).

**Courtesy Coordination**

Sometimes coordination with a department or program must occur even though there is no impact in the catalog. The department initiating the proposal is responsible for coordinating with each impacted program chair/coordinator, even if the impact is not found in the catalog. The term *courtesy coordination* can be used to document this type of situation.

**Items that are NOT entered into Box 13a.**

- You do not have to list impacts to classes that the revised class is stacked or cross listed with if you have already completed Box 12.

* Coordination is the requirement that all faculty initiators of curriculum actions identify and notify all academic units that may be affected by the curriculum change of the precise nature of their proposal. Coordination is always expected between and among affected department chairs/coordinators and deans in Anchorage, as well as directors of community campuses.

** program selective** - A credit course within a group of courses from which a student is required to select.

**Example of Box 13a (Coordination and Courtesy Coordination)**

CIS A330 (Database Management Systems)

<table>
<thead>
<tr>
<th>Impacted Program/Course</th>
<th>Date of Coordination</th>
<th>Chair/Coordinator Contacted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Logistics and Supply Chain Management, BBA</td>
<td>3/25/2011</td>
<td>Philip Price</td>
</tr>
<tr>
<td>CIS A360</td>
<td>3/25/2011</td>
<td>Minnie Yen</td>
</tr>
<tr>
<td>CIS A410</td>
<td>3/25/2011</td>
<td>Minnie Yen</td>
</tr>
<tr>
<td>CIS A430</td>
<td>3/25/2011</td>
<td>Minnie Yen</td>
</tr>
<tr>
<td>Computer Science BA, BS</td>
<td>3/25/2011</td>
<td>Sam Thiru</td>
</tr>
</tbody>
</table>

* Do not send proposals as attachments when sending email notices to the faculty listserv since large files can cause difficulty with email delivery.
**Box 13b. Coordination Email Submitted to Faculty Listserv**
Enter the date of the email send to the faculty listserv (uaa-faculty@lists.uaa.alaska.edu). Initiating faculty are required to send an email notification to faculty listserv giving a brief overview of the proposal including:

- School and department (CAR boxes 1a and 1c),
- course prefix (CAR box 2),
- course number (CAR box 3),
- course title (CAR box 6),
- Add/Change/Delete and if change, a summary list of changes (CAR box 8),
- course description (CAR box 15),
- justification for action (CAR box 19),
- any other relevant information.

Do not send proposals as attachments when sending email notices to the faculty listserv since large files can cause problems. The coordination email must be sent at least 10 working days before being presented at UAB/GAB.

**Box 13c. Coordination with Library Liaison**
The faculty initiator is required to send the CAR and CCG to the library liaison for that department (http://consortiumlibrary.org/find/subject_liaison_librarians), with a copy of the email sent to the Governance Office.

**Box 14. GERs**
Identifies whether the course is a GER and which type of GER it is. The department initiating the proposal is responsible for submitting supporting documentation for the change, addition, or deletion.

**Box 15. Course Description**
Identifies the intent of the course. For courses, a 20- to 50-word description is preferred. Special Notes are also identified in this field. Special notes indicate certain requirements of the student or the course that are not identified in the course description (e.g. “May be repeated for credit with a change in subtitle,” or “Offered Spring Semesters”).

A program proposal must include new catalog copy with a copy of the old catalog copy if applicable. For program proposals type “see attached catalog copy” in the box.

**Box 16a. Course Prerequisite(s)**
Identifies prerequisites which must be achieved prior to enrolling in a course. The prerequisite course (listed with prefix and number in alpha-numerical order) must be successfully completed prior to taking the course. Course prerequisites should be grouped using parenthesis and brackets similar to how you would group mathematical expressions. See the examples below.

Unless a minimum grade is specified for a prerequisite class, any grade value (including I, F, and W) will mark the class as satisfying the prerequisite if prerequisite checking has been turned on. For instance, if a student withdrew from a class and received a W, that student would be identified by Banner as having fulfilled any prerequisite requirement for the class they withdrew from. It is always assumed that faculty may waive the prerequisite or the minimum grade requirement.
A course prerequisite which **may** be taken concurrently must also be included in this box using the additional language “or concurrent enrollment.” This differs from a corequisite which should be placed in Box 16c. See the section on Box 16c. for detailed information about corequisites.

Any additional information that appears as text should be placed in Box 16e (Other Restrictions).

**Prerequisite examples:**

ECON A429 (Business Forecasting)  
{CIS A110, BA A273, and [BA A377 or ECON A321]} with minimum grade of C

EDFN A303 (Foundations of Teaching and Learning)  
[EDFN A301 or concurrent enrollment] and [EDSE A212 or PSY A245]

EE A324 (Electromagnetics II)  
[EE A314 or PHYS A314] and MATH A302

ENGL A311 (Advanced Composition)  
[ENGL A211 or ENGL A212 or ENGL A213 or ENGL A214] with minimum grade of C

FIRE A214 (Fire Protection Systems)  
FIRE A101 and FIRE A105 and FIRE A121 and [MATH A105 or MATH A107 or MATH A108 or MATH A109 or MATH A172 or MATH A200 or MATH A201 or MATH A272]

SWK A342 (Human Behavior in the Social Environment)  
PSY A150 and [BIOL A102 or BIOL A111 or BIOL A112 or BIOL A115 or BIOL A116 or LSIS A102 or LSIS A201]

Note: **Automatic prerequisite checking** is available when a Prerequisites Form is submitted. This form is not part of the curriculum process, but is submitted directly to the Registrar’s Office. It is available via [www.uaa.alaska.edu/records/faculty_resources/upload/Prerequisites_Form.pdf](http://www.uaa.alaska.edu/records/faculty_resources/upload/Prerequisites_Form.pdf)

**Test Scores:**

Identify test scores which must be successfully achieved prior to taking the course. This may include UAA Approved Placement Tests, SAT, ACT, or others. Specifically test scores are not required. It is assumed that faculty may waive the requirement.

Courses wishing to implement placement test scores as part of pre-requisite checking should indicate “or appropriate placement score.” There should also be an attached memo for each CAR indicating what the appropriate placement score is. If a change occurs to the cut score, the department will need to submit a memo to the Office of the Registrar and the Governance Office which would outline the new cut scores and list specifically which courses are impacted.

**Box 16b. Corequisite(s)**

Identifies a course (must be listed with prefix and number) which **must** be taken concurrently; requires simultaneous enrollment and withdrawal. It is assumed that faculty may waive the requirement.

Example for NURS A180  
Corequisite: NURS A125 and NURS A125L

*Note: If the department has an alternative corequisite or a list of options for corequisites, do not include “or” in this box; do not include text information in this box. That information should be placed in box 16e (Other Restrictions).*
**Box 16c. Other Restriction(s)**
Identifies additional requirements that a student must have satisfied prior to registering for the course (e.g., college or school admission\(a\), major\(b\), class standing\(c\), or level\(d\)). The name of the college or school, major, class standing, or level required should be specified in Box 16d. When these boxes are checked, Banner will automatically enforce the restrictions. It is assumed that faculty may waive the requirement.

\(a\) College or school admission – identifies a college/school to which a student must be admitted to in order to enroll in the course.

\(b\) Major – identifies a major which a student must have declared in order to enroll in the course.

\(c\) Class – identifies a class standing which a student must have attained in order to enroll in the course (0-29 credits = freshmen; 30-59 credits = sophomore; 60-89 = junior, 90+ = senior).

\(d\) Level – identifies a level which a student must be at in order to enroll in the course (graduate or undergraduate).

Checking the level box in 16d is mandatory for all graduate level 600 courses.

**Box 16d. Registration Restriction(s)**
Identifies additional requirements that a student must have satisfied prior to registering for the course (e.g. instructor permission, departmental permission). Must be enforced by the program/department/ instructor. It is assumed that faculty may waive the requirement.

**NOTE:** Responsibility for confirming prerequisites, test scores, co-requisites, registration restrictions, and other restrictions lies with the department. It is assumed that the faculty may waive or enforce any of these requirements, subject to program, department and college policy.

**Box 17. Mark if Course Has Fees**
Indicates whether there is a student fee associated with the course. Do not include fee amount on CAR. This information is published under the course description in the catalog as “Special Fees,” and in the schedule with specific amounts. If the only action requested is a change in fees, no CAR is required.

New fees, changes in course fees, and deletions of course fees must be submitted on the Fee Request Form (www.uaa.alaska.edu/governance/coordination/index.cfm) and need the approval of the Provost. Refer to the Board of Regents Policy and Regulation Part V Chapter X for course fee information www.alaska.edu/bor/policy-regulations/.

**Box 18. Mark if Course is a Selected Topic Course**
Check box to indicate that course is a selected topic course; that the subtitle or topic of the course changes. Most selected topics courses are repeatable with a change in subtitle, and this box will help ensure that scheduling is done properly, and that student transcripts will show subtitle changes ensuring repeat credit is received.

**Box 19. Justification for Action**
For an existing course, justification needs to be provided for each proposed change as indicated in Box 8. Each proposed change must be noted, e.g. updates to CCG, Goals and Student Learning Outcomes, etc. For a new course, justification needs to be provided such as student or community interest or how the proposed course or change strengthens existing offerings. The supporting data must be supplied if the course is required for certification or accreditation.
Section 11 - Step-By-Step Instructions for the Program/Prefix Action Request (PAR)

11.1 The PAR Form

Program/Prefix Action Request
University of Alaska Anchorage
Proposal to Initiate, Add, Change, or Delete a Program of Study or Prefix

1a. School or College
   choose one

1b. Department

2. Complete Program Title/Prefix

3. Type of Program
   Choose one from the appropriate drop down menu:
   Undergraduate: or Graduate: CHOOSE ONE
   CHOOSE ONE
   This program is a Gainful Employment Program: Yes or No

4. Type of Action:
   PROGRAM
   Add
   Change
   Delete
   PREFIX
   Add
   Change
   Inactivate

5. Implementation Date (semester/year)
   From: / To: /

6a. Coordination with Affected Units
   Department, School, or College:
   Faculty Initiator Name (typed): Faculty Initiator Signed Initials: Date:

6b. Coordination Email submitted to Faculty Listserv (uaa-faculty@lists.uaa.alaska.edu) Date:

6c. Coordination with Library Liaison Date:

7. Title and Program Description - Please attach the following:
   Cover Memo
   Catalog Copy in Word using the track changes function

8. Justification for Action

Initiator (faculty only) Date

Initiator (TYPE NAME)

[ ] Approved
[ ] Disapproved

Dean/Director of School/College Date

[ ] Approved
[ ] Disapproved

Department Chair Date

[ ] Approved
[ ] Disapproved

[ ] Approved
[ ] Disapproved

[ ] Approved
[ ] Disapproved

[ ] Approved
[ ] Disapproved

Provost or Designee Date
11.2 Instructions for Completing the PAR

Box 1a. School/College
Using the drop-down box, insert school or college initiating action.
AA  Academic Affairs
AS  College of Arts and Sciences
CB  College of Business and Public Policy
CH  College of Health
CT  Community and Technical College
EA  College of Education
EN  School of Engineering
HC  University Honors College
KP  Kenai Peninsula College
KO  Kodiak College
MA  Matanuska-Susitna College

Box 1b. Department
Insert department initiating action. Note: Changing the name of a division or academic department requires Provost approval and a PAR notifying Governance.

Box 2. Complete Program Title/Prefix
Insert full title of the proposed program or prefix.

Box 3. Type of Program
Insert Type of Program proposed. The maximum number of credits required by a degree program, per Board of Regents Policy (BOR Policy and Regulation 10.04.030), are noted below:

- Occupational Endorsement Certificate
- Undergraduate Certificate
- Associates (AA/AAS)
- Baccalaureate (BA/BS)
- Minor
- Post-Baccalaureate Certificate
- Graduate Certificate
- Graduate
- Doctoral
- Other

If the program is determined to be a Gainful Employment program, then check the “Yes” box; otherwise, check the “No” box. Meet with Associate Vice Chancellor for Enrollment Management to determine a program’s status. Additional documentation is required for programs which are identified as Gainful Employment programs.

Box 4. Type of Action
Check if the PAR is for an addition, deletion, or change to a program. Alternatively, the type of action may indicate a request for a new prefix, change to a prefix, or inactivation of a prefix.

Box 5. Implementation Date
Insert the semester and year that the addition, deletion, or change will be implemented.

The overall principles affecting the date for implementation of academic policy or program change include the following:

- Students must receive adequate notice or a program/prefix change.
- Staff must have adequate time to implement the change effectively.
Generally this is interpreted to mean that program/prefix changes, including new programs, must be advertised in the university catalog.

Based on the current schedule of catalog distribution in the spring or summer, most program changes should take effect in the fall semester following catalog distribution. Exception to this policy will be made only in exceptional circumstances. Permission of the OAA is required for implementation at an earlier date. Requests for an earlier date must detail the procedures the academic unit will use to notify affected students and facilitate the transition to the new requirements.

**Box 6a. Coordination with Affected Units**

Coordination is the requirement that all faculty initiators of program/prefix actions identify and notify all academic units who may be affected by the curriculum change of the precise nature of their proposal. Coordination is always expected between and among department chairs and deans in Anchorage, as well as directors of community campuses.

- The purpose of coordination is to:
  - A. Allow affected units who may have a legitimate interest in the program/prefix proposal, opportunities to review and comment on such proposals before they are considered by the college curriculum committees and the UAB/GAB.
  - B. Encourage collaboration among all academic units.
  - C. Maintain and improve quality of program offerings.

- An affected unit is defined as a department or academic unit whose curriculum will be affected by the proposed program action.

- Coordination with affected units is required in the following cases:
  - A. When the program, courses, or content proposed bridges material regularly included in other disciplines.
  - B. When the program includes or requires prerequisite courses from other degree programs, sites, or campuses.
  - C. When the proposed program can reasonably be expected to use courses offered by other disciplines.
  - D. When a subsequent allocation of resources resulting from the proposal will impact the unit’s ability to deliver academic courses required in other programs.

- Coordination should be initiated very early in the program development process – before finalization of the proposal.

- Coordination includes:
  - A. Sending proposal to department chairs of affected units
  - B. Actively seeking collaboration, comments and suggestions
  - C. Allowing 10 working days from the published date of notification of affected units before moving the proposal through the established levels of review.

- Evidence of coordination with affected units is required by inclusion of a copy of the email sent to the UAA listserv and to the department chairs of affected units. If necessary, affected units should communicate directly with the initiating department. Affected academic units are then encouraged to submit written support or objection to UAB/GAB and/or to speak to the proposal at the appropriate Board meeting. If no written comments are received by the UAB/GAB within 10 working days of the notification date, it is assumed that there are no objections to the proposal.
After coordination is complete, in Box 6a; type in the department, schools, or colleges coordinated with; type the faculty initiator’s name; write in the faculty initiator’s initials and the date.

**Box 6b. Coordination Email Submitted to Faculty Listserv**
Initiating faculty are required to send an email notification to faculty listserv at: uaa-faculty@lists.ualaska.edu giving a brief overview of the proposal including:

- School and department (PAR boxes 1a and 1b),
- Complete Program Title (PAR box 2),
- Type of Program (PAR box 3),
- Type of Action (Add/Change/Delete) (PAR box 4),
- justification for action (PAR box 8),
- any other relevant information.

The email must be sent at least 10 working days before being presented at UAB/GAB.

*Do not send proposals as attachments when sending email notices to the faculty listserv since large files can cause problems.*

**Box 6c. Coordination with Library Liaison**
Coordination with the library liaison should occur early in the curriculum process. The faculty initiator is required to send the PAR to the library liaison for that department (http://consortiumlibrary.org/about/directory/liaisons.php), with a copy of the email sent to the Governance Office. Type in the date of coordination to indicate that the coordination has been done.

**Box 7. Title and Program Description**
Include a description of the intent of the program in the form of an attached cover memo. A program proposal must also include catalog copy with text changes and a clean copy of how the new catalog text will appear.

**Box 8. Justification for Action**
Insert the need for and/or reasoning behind the proposed action, such as student or community interest or how the proposal strengthens existing offerings.
Section 12 - Catalog Copy Formatting

The following outlines the requirements for formatting all program catalog copy submitted to UAB or GAB. Included are two sample program catalog copy sections. Refer to the UAA catalog (www.uaa.alaska.edu/records/catalogs/catalogs.cfm) for more examples.

Catalog copy from the published catalog can be found in Word format on the Governance site at www.uaa.alaska.edu/governance/.

Notes for creating and submitting catalog copy:

- **You must use the Word formatted catalog copy available at [www.uaa.alaska.edu/governance/](http://www.uaa.alaska.edu/governance/).**

- Courses must have their full titles and correct credit amounts and those must match what is currently in the catalog.

- Within a department or discipline, the order of undergraduate programs should be:
  1. Honors
  2. Occupational endorsement certificates

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**Basic Format:**

Department Name
Contact information, location, web address

1. General discipline information
   A. Degree or Certificate program name and description
   B. Overview and career information
   C. Student Learning Outcomes: Include Student Learning Outcomes for the program in the catalog copy.
   D. Honors: Header in the catalog should read: “Honors in Discipline”, e.g., Honors in English.
   E. Accreditation
   F. Research possibilities
   G. Gainful Employment statement (if needed)

2. Admission Requirements
   A. Preparation
   B. Pre-major
   C. Major

3. Advising

4. Academic Progress Requirements

5. Graduation Requirements
   A. General University
   B. General Education Requirements (GERs)
   C. College
   D. Major degree requirements
   E. Other graduation requirements

6. Faculty
3. Undergraduate certificates
4. Associates degrees
5. Bachelor of Arts
6. Bachelor of Science
7. Minors

For graduate programs should be:
1. Graduate certificates
2. Masters degrees
3. Ph.D. programs

• Required credit amounts should be aligned to the right (see the following two examples). If a class has its credits aligned to the right it will be interpreted that this class is a requirement.

• Electives (or selectives) will have their credit amounts shown in parenthesis and will appear one space after the title of the course (see the following two examples). If a course has its credit amount in parenthesis after the title it will be interpreted as not required (i.e., a class a student can choose to take to fill a requirement).

• If, within a list of required classes, a student must take 3 credits, for example, but has a choice of two or more classes to fulfill that requirement, the required credit amount should be aligned to the right on the same line as the first elective. All of the electives should still have their credits in parentheses after the course title. Each course should be separated by a line on which an “or” appears (and nothing else). This is what it should look like:
  
  Upper Division Biology (choose one of the following) 3-4
  BIOL A310  Principles of Physiology (3)
  or
  BIOL A415  Comparative Animal Physiology (4)
  or
  BIOL A461  Molecular Biology (3)
  CHEM A105  General Chemistry I  3
  CHEM A105L  General Chemistry I Laboratory  1
  CHEM A106  General Chemistry II  3
  CHEM A106L  General Chemistry II Laboratory  1
  CHEM A253  Principles of Inorganic Chemistry  3

• The list of courses must appear in alphabetical order by prefix, and then in numerical order by course number.

• Faculty are listed in alphabetical order by instructor last name. Degrees or credential letters are not included (i.e., Ph.D., P.E., etc.). Faculty position title and email address are included.
EXAMPLE 1:

ELEMENTARY EDUCATION

Professional Studies Building (PSB), Room 224, (907) 786-4481
www.uaa.alaska.edu/coe

Bachelor of Arts, Elementary Education (with Teacher Certification)

Individuals interested in undergraduate elementary teacher preparation may obtain either a BA in Elementary Education or a Post-Baccalaureate Certificate in Elementary Education with elementary teacher certification. See Chapter 11, Post-Baccalaureate Certificate Programs, for more information.

The BA in Elementary Education is a professional degree nationally recognized by the Association of Childhood Education International (ACEI). Unique features of the program include an emphasis on culturally responsive teaching in Alaska’s context; a strong liberal studies focus; exposure to a range of teaching and curriculum design approaches, including integration of educational technology; and focused field experiences, developmentally sequenced and in a variety of school/classroom settings. Applicants are encouraged to take EDFN A101 Introduction to Education (3 credits) to learn more about the field of education. Elementary Education supports an Honors Track option. See an advisor for course guidance.

Student Learning Outcomes

Student learning outcomes for the program are based on the Standards for Alaska’s Teachers located at www.eed.state.ak.us/standards and the Association for Childhood Education International (ACEI) standards located at www.acei.org. Within a culturally responsive framework, program graduates will:

1. Construct learning opportunities that support K-6 students’ development, acquisition of knowledge, and motivation.
2. Design and implement curriculum that supports K-6 students’ learning of language arts, science, mathematics, social studies, the arts, health, and physical education.
3. Plan and implement instruction based on knowledge of K-6 students, learning, theory, curriculum, and community.
4. Create appropriate instructional opportunities to address diversity.
5. Use teaching strategies that encourage development of critical thinking and problem solving.
6. Foster active engagement in learning and create supportive learning environments.
7. Use effective communication strategies to foster inquiry and support interaction among K-6 students.
8. Use formal and informal assessments to inform and improve instructional practice.
9. Reflect on practice and engage in professional growth activities.
10. Establish positive collaborative relationships with families, colleagues, and the community.

Admission Requirements

Admission to the University of Alaska Anchorage: Elementary Education Major

Applicants must complete the Admission to Baccalaureate Programs Requirements in Chapter 7, Academic Standards and Regulations. Application forms are available at: www.uaa.alaska.edu/admissions.

Admission to the Department of Teaching and Learning, College of Education: Elementary Education Major

In order to be admitted to the Department of Teaching and Learning, students must:

1. Submit an application to the Department of Teaching and Learning.
2. Complete the Tier I Basic College-Level Skills General Education Requirements.
3. Have a cumulative GPA of 2.75.
4. Have a GPA of 3.00 in Major Requirements.

5. Successfully complete the Praxis I: Pre-Professional Skills Test (PPST). Contact the Department of Teaching and Learning for current passing scores.

6. Successfully complete the following courses with a grade of C or higher: EDEL A205 Becoming an Elementary Teacher and EDSE A212 Human Development and Learning.

7. Submit Interested Person Report.

Note: Admission to the Department of Teaching and Learning is competitive. Qualified applicants are accepted on a space-available basis. Admission to the university as an Elementary Education major does not guarantee admission to the department.

**Admission to Field Experiences**

Admission to field experiences is separate from admission to the program and may be limited by community partners. See Field Placements located at the beginning of the College of Education section of this chapter. Applications for EDEL A495A, Elementary Education Practicum II, and Elementary Internship courses must be submitted by the semester before enrolling in EDEL A495A, Elementary Education Practicum II. Qualified applicants are accepted on a space-available basis. Admission to the Department of Teaching and Learning does not guarantee admission to the field experiences.

The Elementary Programs Admission Committee determines a candidate’s readiness to enroll in all field experiences. The candidate must realize that requirements set forth below constitute minimum preparation, and it may be the judgment of the committee that the candidate needs further work to develop content knowledge or skills to work with children.

**EDEL A495A, Elementary Practicum II and Internship Admission Criteria**

EDEL A495A, Elementary Education Practicum II, increases the time in the classroom and the planning and teaching experiences, with focus on the classroom environment, math and science. The Elementary Internship includes a capstone seminar and extensive, supervised teaching experiences in an elementary classroom. Emphasis is placed on meeting the Alaska Beginning Teacher Standards. Criteria include the following:

1. Meet all the requirements for and be admitted to the Department of Teaching and Learning as an Elementary Education major.
2. Submit an application form for admission to Internship, including a resume and letter of introduction, by the department’s published deadline.
3. Participate in a screening interview.
4. Complete all prerequisite courses.
5. Successfully complete the Praxis II: Elementary Content Knowledge (0014). Contact the Department of Teaching and Learning for current passing score.
6. Have a cumulative GPA of 2.75.
7. Have a GPA of 3.00 in Major Requirements.
8. Apply for the Student Teaching Authorization Certificate. This application includes fingerprinting and a criminal background check. Fee required. Contact COE advisors for more information.
Academic Progress
Satisfactory progress in the practicum courses (EDEL A395 and EDEL A495A) is required for enrollment in the internship (EDEL A495B). All Major Requirements, EDSE A212 and MATH A205 must be completed with a grade of C or higher in order to obtain an institutional recommendation for elementary teacher certification.

Graduation Requirements
Candidates must complete the following graduation requirements:

A. General University Requirements
Complete the General University Requirements for All Baccalaureate Degrees listed at the beginning of this chapter.

B. General Education Requirements
Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C. Background Check Requirements
See Field Placements located at the beginning of the College of Education section of this chapter.

D. Liberal Studies Area
Complete the liberal studies area. These courses are selected to provide future elementary teachers with the skills and background knowledge in the various subjects they will be expected to teach. The selection is based on national and state standards for content preparation. Some of the liberal studies courses may also be used to meet General Education Requirements (GERs).

Sciences Core (15-24 credits)

- LSIS A102 Origins: Earth-Solar System-Life (5) 5-8
  - or
- GEOL A111 Physical Geology (4)
  - and one of the following lecture/lab combinations:
    - ASTR A103 Solar System Astronomy (3)
      - and
    - ASTR 103L Solar System Astronomy Laboratory (1)
      - or
    - ASTR A104 Stars, Galaxies and Cosmology (3)
      - and
    - ASTR A104L Stars, Galaxies and Cosmology Laboratory (1)

- LSIS A201 Life on Earth (5) 5-8
  - or
- BIOL A102 Introductory Biology (3)
  - and
- BIOL A103 Introductory Biology Laboratory (1)
  - and one of the following:
    - BIOL A115 Fundamentals of Biology I (4)
      - or
    - BIOL A116 Fundamentals of Biology II (4)

- LSIS A202 Concepts and Processes: Natural Sciences (5) 5-8
  - or
- CHEM A103 Survey of Chemistry (3)
  - and

If you have subheadings for different types of courses, you can use italics, bold, underline, or tabs to set them apart. It is a good idea to include a total credit amount as well.

If a student has a choice between two electives to fill a required course, put the elective credit amounts in parentheses next to the course titles, as usual, but put the required credit amount aligned to the right on the same line as the first course.

Separate the two electives with an “or” on its own line.
CHEM A103L  Survey of Chemistry Laboratory (1)
and one of the following lecture/lab combinations:
PHYS A115  Physical Science (3)
and
PHYS A115L  Physical Science Laboratory (1)
or
PHYS A123  Basic Physics I (3)
and
PHYS A123L  Basic Physics I Laboratory (1)

Social Sciences (SS) and Humanities (HUM) Core (36-39 credits)
Students must meet GERs for Baccalaureate Degrees including 6 credits of social sciences (SS) from two different disciplines and 6 credits of humanities (HUM).

ANTH A250  The Rise of Civilization (3) 3
or
HIST A390A  Themes in World History (3)
HIST A131  History of United States I (3) 3
or
HIST A132  History of United States II (3)
or
HIST A355  Major Themes in US History (3)
EDSE A212  Human Development and Learning (3)
ENGL A121  Introduction to Literature (3) 3
or
ENGL A201  Masterpieces of World Literature I (3)
or
ENGL A202  Masterpieces of World Literature II (3)
HUM A211  Introduction to Humanities I (3) 3
or
HUM A212  Introduction to Humanities II (3)
or
HNRS A192  Honors Seminar: Enduring Books (3)
LSSS A111  Cultural Foundations of Human Behavior (3) 3
or
HNRS A292  Seminar in Social Science (3)
or
ANTH A202  Cultural Anthropology (3)
LSIC A231  Truth, Beauty, and Goodness (3) 3
or
PHIL A301  Ethics (3)
LSSS A311  People, Places, and Ecosystems (3)
or
ENVI A211  Environmental Science: Systems and Processes (3)
LSIC A331  Power, Authority, and Governance (3) 3

Double-check all course titles. They must exactly match the full titles published in the catalog course name.
SOC/PS A351  Political Sociology (3)
LSSS A312  Individuals, Groups, and Institutions (3)  3
or
PSY A111  General Psychology (3)
and
SOC A101  Introduction to Sociology (3)
or
SOC A375  Social Psychology (3)
or
PSY A375  Social Psychology (3)
or
LSIC A332  Science, Technology and Culture (3)  3

Select one course from fine arts GERs  3

Mathematical Skills (9-13 credits)
MATH A205  Communicating Mathematical Ideas and
STAT A252  Elementary Statistics (3)  3-4
or
STAT A253  Applied Statistics for the Sciences (4)
and
Select one additional course from quantitative skills GERs 3-6

Oral and Written Communication Skills (9 credits)
Select one course from oral communication GERs  3
Select two courses from written communication GERs 6

E. Major Requirements

It is recommended that students complete EDFN A101 Introduction to Education prior to enrolling in the following major courses. It is strongly recommended that you see an advisor to stay on track. Field experiences in public schools are required as part of most courses.

1. Complete the following core courses (22 credits)
   EDEC A242  Family and Community Partnerships (3) 3
   or
   HNRS A310  Community Service: Theory and Practice (3)
   EDEL A205  Becoming an Elementary Teacher 2
   EDFN A206  Introduction to Assessment in Education 1
   EDFN A300  Philosophical and Social Context of American Education (3) 3
   or
   EDFN A304  Comparative Education (3)
   EDFN A301  Foundations of Literacy and Language Development 3
   EDFN A302  Foundations of Educational Technology 2
   EDEL A392  Elementary Education Seminar I: Culturally Responsive Teaching 2

All required courses have the credits aligned to the right.
Groups of electives have the required course number listed to the right, and...
Elective course credit amounts are shown in parentheses after the course name.
2. Complete the following methods courses (18 credits)
   - EDEC A106 Creativity and the Arts in Early Childhood 3
   - EDEL A325 Teaching Literacy in Elementary Schools 6
   - EDEL A327 Teaching Social Studies in Elementary Schools 2
   - EDEL A426 Teaching Mathematics in Elementary Schools 3
   - EDEL A428 Teaching Science in Elementary Schools 2
   - PEP A345 Incorporating Health and Physical Activity into the Pre-K-6 Classroom 2

**Concurrent enrollment in multiple courses is required. See an advisor for details.**

3. Complete the following field experiences and internship (16-19 credits)
   - EDEL A395 Elementary Education Practicum I: Literacy and Social Studies 2
   - EDEL A492A Elementary Education Seminar II: Learning Environment 2
   - EDEL A492B Elementary Education Seminar III: Teaching Capstone 3
   - EDEL A495A Elementary Education Practicum II: Learning Environment, Mathematics, Science 3
   - EDEL A495B Elementary Education Internship 6-9
   
**or**

For Honors Option Senior Requirement:
   - HRNS A499 Thesis (3)
   - EDEL A495B Elementary Education Internship (6)

4. A total of 125-141 credits is required for the degree, of which 42 credits must be upper division.

**BAEL and Honors College Option**

Take the following Honors College Core Program Courses (16 credits)
   - HNRS A192 Honors Seminar: Enduring Books 3
   - HNRS A292 Honors Seminar in Social Science 3
   - HNRS A310 Community Service: Theory and Practice 3
   - HNRS A392 Honors Thesis Seminar 1
   - HNRS A499 Honors Thesis 3

   and taken concurrently with EDEL A495B Internship (6) 3

(three credits of Internship apply to the Senior Requirement)

*Important: See an advisor if considering the Honors Option.*
Institutional Recommendation,

Elementary Teacher Certification (K-6)

Following are the requirements for an institutional recommendation:

1. Major requirements completed with a grade of C or higher.
2. Cumulative GPA of 2.75.
3. Cumulative GPA of 3.00 in all Major Requirements, EDSE A212 and MATH A205.
4. Passing scores on the Praxis I (PPST) and Praxis II (0014) exams.
5. Internship satisfactorily completed.
6. BA in Elementary Education degree conferred.

EXAMPLE 2:

ARCTIC ENGINEERING

Engineering Building (ENGR), Room 201, (907) 786-1900
http://www.uaa.alaska.edu/schoolofengineering/programs/arctic/

The Arctic Engineering program is designed to provide graduate education for engineers who must deal with the unique challenge of design, construction and operations in the cold regions of the world. The special problems created by the climactic, geological and logistical conditions of the Arctic and sub-Arctic require knowledge and techniques not usually covered in the normal engineering courses. Development of petroleum and other natural resources has accentuated the demand for engineers trained in northern operations, both from private industries involved in development and government agencies planning or regulating these activities. Of primary importance is a thorough knowledge of heat transfer processes and properties of frozen ground and frozen water, which are basic to most engineering activities in the Arctic. The areas of hydraulics, hydrology, materials and utility operations are also uniquely affected by Arctic considerations.

Master of Science, Arctic Engineering

The Master of Science of Arctic Engineering requires completion of a set of core courses that will prepare an engineer to understand and adapt prior engineering knowledge and skills to problems of cold regions. The program also allows students to study advanced elective courses in a particular area of specialized interest. Research activities carried out by faculty of the UAA School of Engineering provide opportunities for project reports dealing with current Arctic knowledge. A graduate advisory committee of at least three members is appointed to guide each admitted student to degree completion. Two members must be UAA Engineering faculty members.

Student Learning Outcomes

On successful completion of the program, students will have gained sufficient knowledge to:

1. Recognize natural conditions and engineering challenges that are unique to cold regions;
2. Interpret associated specialized language and units of measure;
3. Locate, interpret, and apply public information about the physical conditions of cold regions;
4. Apply fundamental physical principles for solutions to common cold regions engineering problems;
5. Assess need for complex specialized Arctic engineering solutions;
6. Determine physical and thermal properties, evaluate frost heave rates, and estimate heat flow in soils, prevent foundation failure due to seasonally or perennially frozen ground by appropriate project site exploration and design of constructed features;

7. Determine mathematical and physical properties governing heat and mass transfer in cold climates;

8. Determine temperature profiles in structure walls, roofs, and foundations, predict moisture content and mass flow rates in structures;

9. Acquire, integrate, and interpret data from public archives regarding site conditions associated with planning and design of community utility systems and formulate field measurement programs to determine site conditions for planning and design;

10. Analyze properties of lake, river, and sea ice, predict behavior of ice under natural conditions, and predict ice forces on engineering structures; and

11. Apply the sum of specialized Arctic engineering knowledge and skills gained in the program toward solution of a practical engineering problem and report this to fellow specialists.

**Admission Requirements**

All students admitted to the Arctic Engineering program must have previously earned a baccalaureate degree in an engineering discipline with a cumulative undergraduate GPA of at least 3.00. Probationary admission may be granted by the Civil Engineering Department for students whose cumulative undergraduate GPA is between 2.50 and 3.00, but who have successfully completed graduate studies at the 3.00 level or better and have other evidence of their potential for success in graduate engineering studies. Probationary terms will typically call for successful completion of a pre-approved sequence of 9 credits of graduate engineering courses. Admitted students are also responsible for completion of prerequisites for Arctic engineering program courses, which may not have been included in their undergraduate education.

**Graduation Requirements**

See the beginning of this chapter for University Requirements for Graduate Degrees.

**Major Requirements**

1. Candidates must complete the following core courses (9 credits):
   - CE A603 Arctic Engineering* 3
   - CE A681 Frozen Ground Engineering 3
   - ME A685 Arctic Heat and Mass Transfer 3
   
   *Students who have completed CE A403 Arctic Engineering with a grade of C or better, or students who have passed the ES AC030 Fundamentals of Arctic Engineering or ES AC031 Introduction to Arctic Engineering before being admitted to the program must replace CE A603 with an elective, 3-credit course accepted by the student’s graduate advisory committee.

2. Candidates must also complete at least three additional courses from the following Arctic engineering program elective courses (9 credits):
   - CE A682 Ice Engineering (3)
   - CE A683 Arctic Hydrology and Hydraulic Engineering (3)
   - CE A684 Arctic Utility Distribution (3)
   - CE A689 Cold Regions Pavement Design (3)

3. Candidates must complete additional graduate electives (9 credits) in mathematical, science or engineering subjects related to or supportive of the student’s program of study, as approved by the student’s advisory committee to fulfill the minimum 30-credit degree requirement. One technical undergraduate elective course at the 400 level may be applicable with prior permission of the student’s advisory committee and provided a grade of B or better is achieved. All coursework applied toward degree requirements must be approved by the student’s advisory committee.

4. Each student must complete the following course (3 credits) after approval of a project proposal by the student’s advisory committee:
   - CE A686 Civil Engineering Project 3
The Arctic engineering project should have the following characteristics:

a. The Arctic engineering project must solve a practical engineering problem to the extent that original developments by the candidate are evident in the project report.

b. The project problem and solution must be presented in the context of the current state of the art by means of a thorough review of pertinent literature.

c. The project must include innovative components directly involving cold regions engineering.

d. The project must have sufficient scope to clearly demonstrate the candidate’s advanced technical expertise in cold regions engineering.

e. The project report must demonstrate command of knowledge and skills directly associated with the candidate’s graduate program of study.

f. The written project report, in the judgment of the candidate’s advisory committee, must be publishable in the proceedings of a cold regions engineering specialty conference.

g. The work must require a level of effort consistent with three semester hours of credit (approximately 45 to 60 hours per credit hour or 135 to 180 hours total effort).

5. A total of 30 credits is required for the degree.

FACULTY

T. Bart Quimby, Professor, AFTBQ@uaa.alaska.edu
Tom Ravens, Professor, AFTMR@uaa.alaska.edu
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Appendix A - Links to Templates

The following templates can be found at www.uaa.alaska.edu/governance/coordination/index.cfm:

- **Budget Worksheet** - Provides detailed budget information for a new program.

- **Coordination Spreadsheet Template** - Provides format for submission of coordination to the academic boards when a course affects more than three other courses or programs (box 13a of the CAR)

- **Fee Request Form** - Fee requests, associated with particular curriculum proposals, will be reviewed by the Office of Academic Affairs. The Provost’s approval is required before fees are implemented. See Board of Regents Policy and Regulations Part V Chapter X for course fee information [http://www.alaska.edu/bor/policy-regulations](http://www.alaska.edu/bor/policy-regulations).

- **Four-Year Course Offering Plan** - Identifies the Four-Year Course Offering Plan for a new program.

- **Resource Implication Form** - Identifies fiscal impacts of a proposed action.

The following templates can be obtained from OAA:

- **Board of Regents** - Provides detailed information required by Statewide for new programs or major program changes.

The following template is available from the Academic Assessment Committee Website (http://www.uaa.alaska.edu/governance/academic_assessment_committee/index.cfm)

- **Academic Assessment Plan** - Identifies the outcomes and assessment strategies for a new program or a major or minor program change.
Appendix B - Links to Examples

Click on the link to see examples of the following:

- **Budget Worksheet:**
  [www.uaa.alaska.edu/governance/coordination/index.cfm](http://www.uaa.alaska.edu/governance/coordination/index.cfm)

- **Course Action Request (CAR):**
  [www.uaa.alaska.edu/governance/coordination/index.cfm](http://www.uaa.alaska.edu/governance/coordination/index.cfm)

- **Course Content Guide (CCG):**
  [www.uaa.alaska.edu/governance/coordination/index.cfm](http://www.uaa.alaska.edu/governance/coordination/index.cfm)

- **Coordination Spreadsheet:**
  [www.uaa.alaska.edu/governance/coordination/index.cfm](http://www.uaa.alaska.edu/governance/coordination/index.cfm)

- **Faculty Matrix:**
  [www.uaa.alaska.edu/governance/coordination/index.cfm](http://www.uaa.alaska.edu/governance/coordination/index.cfm)

- **Program/PREFIX Action Request (PAR):**
  [http://www.uaa.alaska.edu/governance/curriculumexamples.cfm](http://www.uaa.alaska.edu/governance/curriculumexamples.cfm)

- **Academic Assessment Plan:**
  [www.uaa.alaska.edu/governance/coordination/index.cfm](http://www.uaa.alaska.edu/governance/coordination/index.cfm)

- **Prospectus:**
  [www.uaa.alaska.edu/governance/coordination/index.cfm](http://www.uaa.alaska.edu/governance/coordination/index.cfm)

- **Risk Management Plan:**
  [www.uaa.alaska.edu/governance/curriculumexamples.cfm](http://www.uaa.alaska.edu/governance/curriculumexamples.cfm)
Appendix C - Observable Verbs

Cognitive Domain Observable Verbs

The cognitive domain contains skills that deal with the intellect and attaining knowledge. These lists are provided for assistance, but their use is not required.

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Application</th>
<th>Analysis</th>
<th>Synthesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recalls information</td>
<td>Uses knowledge or generalizations in a new situation</td>
<td>Breaks down knowledge into parts and shows relationships among parts</td>
<td>Brings together parts of knowledge to form a whole and builds relationships for new situations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Application</th>
<th>Analysis</th>
<th>Synthesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprehends</td>
<td>Associates</td>
<td>Analyzes</td>
<td>Arranges</td>
</tr>
<tr>
<td>Arranges</td>
<td>Chooses</td>
<td>Appraises</td>
<td>Assembles</td>
</tr>
<tr>
<td>Counts</td>
<td>Compares</td>
<td>Calculates</td>
<td>Collects</td>
</tr>
<tr>
<td>Describes</td>
<td>Computes</td>
<td>Categorizes</td>
<td>Combines</td>
</tr>
<tr>
<td>Draws</td>
<td>Contrasts</td>
<td>Compares</td>
<td>Compiles</td>
</tr>
<tr>
<td>Duplicates</td>
<td>Converts</td>
<td>Concludes</td>
<td>Composes</td>
</tr>
<tr>
<td>Identifies</td>
<td>Defends</td>
<td>Constructs</td>
<td>Constructs</td>
</tr>
<tr>
<td>Indicates</td>
<td>Differentiates</td>
<td>Correlates</td>
<td>Creates</td>
</tr>
<tr>
<td>Labels</td>
<td>Discusses</td>
<td>Criticizes</td>
<td>Designs</td>
</tr>
<tr>
<td>Lists</td>
<td>Dramatizes</td>
<td>Debate s</td>
<td>Develops</td>
</tr>
<tr>
<td>Matches</td>
<td>Estimates</td>
<td>Deduces</td>
<td>Devises</td>
</tr>
<tr>
<td>Memorizes</td>
<td>Explains</td>
<td>Detects</td>
<td>Formulates</td>
</tr>
<tr>
<td>Names</td>
<td>Extends</td>
<td>Determines</td>
<td>Generalizes</td>
</tr>
<tr>
<td>Orders</td>
<td>Extrapolates</td>
<td>Develops</td>
<td>Generates</td>
</tr>
<tr>
<td>Outlines</td>
<td>Generalizes</td>
<td>Diagnoses</td>
<td>Integrates</td>
</tr>
<tr>
<td>Points to</td>
<td>Gives Examples</td>
<td>Differentiates</td>
<td>Manages</td>
</tr>
<tr>
<td>Produces</td>
<td>Infers</td>
<td>Discriminates</td>
<td>Organizes</td>
</tr>
<tr>
<td>Quotes</td>
<td>Interprets</td>
<td>Estimates</td>
<td>Plans</td>
</tr>
<tr>
<td>Reads</td>
<td>Picks</td>
<td>Evaluates</td>
<td>Prescribes</td>
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<td>Recalls</td>
<td>Reports</td>
<td>Examines</td>
<td>Prepares</td>
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<td>Recites</td>
<td>Restates</td>
<td>Experiments</td>
<td>Produces</td>
</tr>
<tr>
<td>Recognizes</td>
<td>Reviews</td>
<td>Generalizes</td>
<td>Predicts</td>
</tr>
<tr>
<td>Records</td>
<td>Rewrites</td>
<td>Identifies</td>
<td>Rearranges</td>
</tr>
<tr>
<td>Relates</td>
<td>Schedules</td>
<td>Infers</td>
<td>Reconstrucats</td>
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<tr>
<td>Repeats</td>
<td>Sketches</td>
<td>Inspects</td>
<td>Reorganizes</td>
</tr>
<tr>
<td>Reproduces</td>
<td>Summarizes</td>
<td>Initiates</td>
<td>Revises</td>
</tr>
<tr>
<td>Selects</td>
<td>Translates</td>
<td>Inventories</td>
<td>Sets up</td>
</tr>
<tr>
<td>Tabulates</td>
<td></td>
<td>Predicts</td>
<td>Specifies</td>
</tr>
<tr>
<td>Traces</td>
<td></td>
<td>Questions</td>
<td>Synthesizes</td>
</tr>
<tr>
<td>Writes</td>
<td></td>
<td>Relates</td>
<td>Systematizes</td>
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<tr>
<td></td>
<td></td>
<td>Separates</td>
<td>Writes</td>
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<td></td>
<td></td>
<td>Solves</td>
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<td></td>
<td></td>
<td>Tests</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Transforms</td>
<td></td>
</tr>
<tr>
<td>Comprehension – Interpret information in one’s own words</td>
<td>Evaluation – Make judgments on basis of given criteria</td>
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<td>--------------------------------------------------------</td>
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<tr>
<td>Associates</td>
<td>Appraises</td>
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<tr>
<td>Classify</td>
<td>Argues</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cite examples of</td>
<td>Assesses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compares</td>
<td>Attacks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computes</td>
<td>Chooses</td>
<td></td>
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<td>Contrasts</td>
<td>Compares</td>
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<td>Converts</td>
<td>Concludes</td>
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<tr>
<td>Defends</td>
<td>Critiques</td>
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<td>Describes</td>
<td>Defends</td>
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<td>Discusses</td>
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<td>Distinguishes</td>
<td>Grades</td>
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<td>Rates</td>
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<td>Gives examples</td>
<td>Revises</td>
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<td>Identifies</td>
<td>Scores</td>
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<tr>
<td>Indicates</td>
<td>Selects</td>
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<tr>
<td>Infers</td>
<td>Supports</td>
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<tr>
<td>Interprets</td>
<td>Tests</td>
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<tr>
<td>Interpolates</td>
<td>Validates</td>
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<tr>
<td>Locates</td>
<td>Values</td>
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<td>Practices</td>
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<td>Recognizes</td>
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<td>Restates</td>
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<tr>
<td>Review</td>
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<tr>
<td>Rewrites</td>
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<tr>
<td>Selects</td>
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<tr>
<td>Simulates</td>
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<td>Sorts</td>
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<tr>
<td>Summarizes</td>
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<tr>
<td>Tells</td>
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<td></td>
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<tr>
<td>Translates</td>
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<td></td>
</tr>
</tbody>
</table>
Affective Domain Observable Verbs

The affective domain contains skills that deal with emotions, feelings, and values. You will notice that these verbs span differently than cognitive verbs as pertains to level.

<table>
<thead>
<tr>
<th>Receiving</th>
<th>Responding</th>
<th>Valuing</th>
<th>Organization</th>
<th>Internalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to attend to a particular stimuli</td>
<td>Active participation when attending to stimuli</td>
<td>Worth or value student attaches to something</td>
<td>Bringing together different values, resolving conflicts between them</td>
<td>Value system controls behavior to develop a characteristic behavior that is pervasive, consistent, and predictable.</td>
</tr>
<tr>
<td>Asks</td>
<td>Accepts responsibility</td>
<td>Associates with</td>
<td>Adheres to</td>
<td>Acts</td>
</tr>
<tr>
<td>Chooses</td>
<td>Answers</td>
<td>assumes responsibility</td>
<td>Alters</td>
<td>Changes behavior</td>
</tr>
<tr>
<td>Follows</td>
<td>Assists</td>
<td>believes in</td>
<td>Arranges</td>
<td>Develops a code of behavior</td>
</tr>
<tr>
<td>Gives</td>
<td>Be willing to</td>
<td>be convinced</td>
<td>Classifies</td>
<td>Develops a philosophy of life</td>
</tr>
<tr>
<td>Holds</td>
<td>Complies</td>
<td>completes</td>
<td>Combines</td>
<td>Influences</td>
</tr>
<tr>
<td>Shows interest</td>
<td>Conforms</td>
<td>describes</td>
<td>Defends</td>
<td>Judges</td>
</tr>
<tr>
<td>Shows interest</td>
<td>Enjoy</td>
<td>differentiates</td>
<td>Establishes</td>
<td>Problems/issues</td>
</tr>
<tr>
<td>Shows interest</td>
<td>Greets</td>
<td>has faith in</td>
<td>Forms judgments</td>
<td>listens</td>
</tr>
<tr>
<td>Shows interest</td>
<td>Helps</td>
<td>initiates</td>
<td>Identifies with</td>
<td>Performs</td>
</tr>
<tr>
<td>Shows interest</td>
<td>Obeys</td>
<td>invites</td>
<td>Integrates</td>
<td>Practices</td>
</tr>
<tr>
<td>Shows interest</td>
<td>Performs</td>
<td>joins</td>
<td>Organizes</td>
<td>Proposes</td>
</tr>
<tr>
<td>Shows interest</td>
<td>Practices</td>
<td>justifies</td>
<td>Weighs alternatives</td>
<td>Qualifies</td>
</tr>
<tr>
<td>Shows interest</td>
<td>Presents</td>
<td>participates</td>
<td></td>
<td>Questions</td>
</tr>
<tr>
<td>Shows interest</td>
<td>Reports</td>
<td>proposes</td>
<td></td>
<td>Serves</td>
</tr>
<tr>
<td>Shows interest</td>
<td>Selects</td>
<td>selects</td>
<td></td>
<td>Shows mature</td>
</tr>
<tr>
<td>Shows interest</td>
<td>Tells</td>
<td>shares</td>
<td></td>
<td>attitude</td>
</tr>
<tr>
<td>Shows interest</td>
<td>Shows interest</td>
<td>subscribes to</td>
<td></td>
<td>Solves</td>
</tr>
<tr>
<td>Shows interest</td>
<td>Shows interest</td>
<td>works</td>
<td></td>
<td>Verifies</td>
</tr>
</tbody>
</table>
Psychomotor Domain Observable Verbs

The psychomotor domain contains skills that deal with one's physical development and well being.

<table>
<thead>
<tr>
<th><strong>Imitating</strong></th>
<th><strong>Manipulating</strong></th>
<th><strong>Perfecting</strong></th>
<th><strong>Articulating</strong></th>
<th><strong>Naturalizing</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Observes a skill and attempts to repeat it, or see a finished product and attempts to replicate it while attending to an exemplar.</td>
<td>Performs the skill or produces the product in a recognizable fashion by following general instructions.</td>
<td>Independently performs the skill or produces the product, with apparent ease, at an expert level.</td>
<td>Modifies the skill or produces the product to fit new situations while maintaining nearly flawless perfection and showing great ease of execution.</td>
<td>Automatically, flawlessly and effortlessly perform the skill or produces the product tailored to the situation.</td>
</tr>
<tr>
<td>Attempts</td>
<td>Completes</td>
<td>Achieves</td>
<td>Adapts</td>
<td>Naturally</td>
</tr>
<tr>
<td>Copies</td>
<td>Does</td>
<td>Automatically</td>
<td>Advances</td>
<td>Perfectly</td>
</tr>
<tr>
<td>Duplicates</td>
<td>Follows</td>
<td>Excels</td>
<td>Alterns</td>
<td></td>
</tr>
<tr>
<td>Imitates</td>
<td>Manipulates</td>
<td>Expertly</td>
<td>Customizes</td>
<td></td>
</tr>
<tr>
<td>Mimics</td>
<td>Plays</td>
<td>Masterfully with</td>
<td>Originates</td>
<td></td>
</tr>
<tr>
<td>Reproduces</td>
<td>Performs</td>
<td>Improvements with</td>
<td>With fundamental</td>
<td></td>
</tr>
<tr>
<td>Responds</td>
<td>Produces</td>
<td>Refines</td>
<td>revisions</td>
<td></td>
</tr>
<tr>
<td>Starts</td>
<td></td>
<td></td>
<td>With great skill</td>
<td></td>
</tr>
<tr>
<td>Tries to</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using a model</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Appendix D - The Undergraduate & Graduate Academic Boards

The Undergraduate and Graduate Academic Boards review and approve academic policies. They also review and approve new or revised courses/programs/prefixes initiated by faculty and undertake other tasks assigned by the UAA Faculty Senate (Reference: UAA Faculty Senate Bylaws of the Constitution Article V Section 3[a-d]).

Membership

Voting Members

**Undergraduate Academic Board (UAB)**

Each academic unit elects its UAB representative(s) according to Section 3.a. of the Bylaws of the UAA Faculty Senate Constitution. This includes one non-Senate faculty representative from each of the schools and colleges (except the College of Arts and Sciences, which has two), one adjunct faculty member, one library faculty representative, one faculty member from each community campus, and one faculty member from Student Affairs. Members serve two-year terms with one half of the members elected each year. In addition, the Senate chooses four senators to serve on the board as follows:

- Arts and Sciences (1)
- At-large members (3)

Students may appoint one undergraduate-degree-seeking or certificate-seeking student to voting membership on the UAB. It is the responsibility of the Union of Students at UAA (USUAA) to select this representative.

**Graduate Academic Board (GAB)**

Each academic unit elects its GAB representative according to Section 3.c. of the Bylaws of the UAA Faculty Senate Constitution. Members of the board must be faculty involved in graduate programs. This includes non-Senate faculty representative(s) from each degree granting school/college and the library as elected by the faculty within their respective units. Members serve two-year terms with one half of the members elected each year. In addition, the Senate chooses four senators to serve on the board as follows:

- Arts and Sciences (1)
- At-large members (3)

Students may appoint one graduate-degree-seeking student to voting membership on the GAB. It is the responsibility of the USUAA to select this representative.

Nonvoting Members

One representative from the Office of Academic Affairs, appointed by the Provost, one representative from the Office of the Registrar, and one representative from Enrollment Management, Publications and Scheduling, shall be ex-officio and nonvoting members of the Undergraduate and Graduate Academic Boards.

Responsibilities

Membership

- Members are responsible for attending all meetings.
- If a member is unable to attend, that member is responsible for providing a replacement.
- Members act as a liaison between the UAB/GAB and the member’s department/school/college.
- Members must inform departments in their school/college when their proposals are on the agenda.
- Members must review the agenda and attachments prior to each meeting.
Chair

- The presiding chairs of UAB/GAB are elected by their respective boards and must have served on the respective board for a minimum of one year.
- The chair is responsible for attending all meetings.
- If the chair is unable to attend, he/she appoints an acting chair.
- The chair acts as a liaison between UAB/GAB and others as necessary.
- The chairs sign CARs and represent UAB/GAB at UAA Faculty Senate meetings.
- The chairs serve as members of UAA Faculty Senate Executive Board and may represent UAA in system governance issues.
- The chairs may represent the faculty on an ad hoc basis during the year and attend special meetings (such as meeting prospective employee candidates, meeting the Board of Regents, or serving on special task forces).

Meeting Schedule

Regular Meetings

*Undergraduate Academic Board*

During the academic year, UAB meets at 2 p.m. each Friday, except for the first Friday of each month which is the day the UAA Faculty Senate meets. Meetings commence the first week after faculty contracts begin. The schedule is given to UAB members at the beginning of each academic year and posted on the Governance website.

*Graduate Academic Board*

During the academic year, GAB meets at 9:30 a.m. the second and fourth Fridays of each month. Meetings commence the first week after faculty contracts begin. The schedule is given to GAB members at the beginning of each academic year and posted on the Governance website.

Summer Meetings

Neither UAB/GAB meets during June or July. If any curricular items need action during the summer, the UAB/GAB chair or designee reviews the paperwork with a volunteer group of continuing UAB/GAB members. Under such circumstances, the UAA Faculty Senate Executive Committee acts on behalf of the UAA Faculty Senate (UAA Faculty Senate Constitution Article IV Section 11). Approved actions must be reported to UAB/GAB at the first UAB/GAB meeting of the academic year. No policy changes are considered during the summer.

Meeting Notification

All meetings are public meetings. Meeting announcements, agendas, and locations are posted on the Governance webpage.

Agenda and Summary

**Structure**

*Date, Time, and Location*

The agenda lists the date, time, and place of the meeting. Meetings may be teleconferenced if necessary.

I. Roll

II. Approval of the Agenda

III. Approval of Meeting Summary
IV. Administrative Report

V. Chair’s Report

VI. Course Action Request (CAR) or Program/PREFIX Action Request (PAR)-Second Reading

VII. CAR or PAR-First Reading

VIII. Old Business

IX. New Business

X. Informational Items

XI. Adjournment

Definitions

Meeting Summary
The meeting summary includes the roll, all action items, a list of information items, and time of adjournment.

First Reading
- Representatives from the department/school/college must attend the UAB/GAB meeting when their proposal is discussed. If no representative is present, the proposal is tabled.
- All proposals are routinely accepted for First Reading unless tabled (for a specific length of time and for a stated purpose), removed from the agenda (usually by the department/school/college that initiated the item) or formally not accepted for First Reading (usually the item is then sent back to the department/school/college for revision).
- Proposals not properly coordinated before First Reading will be tabled.
- Actions involving changes in General Education Requirements (GER) are referred to the General Education Review Committee (GERC).
- Proposals accepted for First Reading are usually placed on the next agenda for Second Reading. Proposals can be accepted with suggested changes. UAB/GAB, administration, or the submitting department may suggest changes.
- No vote is necessary to accept an item for First Reading.
- Acceptance for First Reading does not predetermine automatic approval at Second Reading.
- Board members should work closely with their department/school/college regarding all recommendations made at UAB/GAB meetings and assist their colleagues in the preparation of the proper paperwork.

CARs and PARs
- CARs and PARs initiated by faculty are required to request curriculum actions. For more information, see the chapters on CARs and PARs.
- Academic Policy: A variety of sources including individuals, departments, schools, colleges, administration, and other boards and committees may initiate new or revised academic policy proposals. Revised policy proposals should include a copy of both the old and new policies with rationale/justification for the new policy or revision. All policy proposals are reviewed and must be approved by UAB/GAB, UAA Faculty Senate, and the administration.

Second Reading
- Second readings usually occur at the next regularly scheduled meeting. All proposals placed on the agenda for Second Reading are voted on by a show of hands or yes/no if audio-conferenced.
- UAB/GAB usually act on proposals at Second Reading but may postpone action if further deliberation or information is necessary.

Informational Items
- The Board may discuss these items and/or request that the items be placed on a future agenda for
Meeting Procedure

UAB/GAB meetings are governed by *Robert’s Rules of Order*. A quorum is a majority of the voting members present. Voting is done by a show of hands or yes/no if audio-conferenced. Votes are recorded as For, Against, Abstain, or Unanimous. A simple majority carries the vote. In the event of a tie, the chair casts the deciding vote.

*Note: Proxy voting is not permitted by any UAA faculty boards and committees. Proxy voting is incompatible with the essential characteristics of a deliberative assembly in which membership is individual, personal, and nontransferable, in that voting should take place subsequent to discussion and deliberation.*

Administrative Support

The Governance Office provides administrative support to UAB/GAB. The Governance Office works closely with the chairs of the boards and prepares and posts the agendas, summaries, and reports on the governance webpage at [www.aaa.alaska.edu/governance](http://www.aaa.alaska.edu/governance). In addition, the office will work with appropriate departments to provide guidance in the preparation and approval of all required actions. The Governance Office, the UAB/GAB chairs and representatives from the Office of Academic Affairs act as liaisons between the Undergraduate Academic Board, the Graduate Academic Board, the Office of Academic Affairs, the Chancellor, and other UAA departments as necessary.
Appendix E - Guidelines on Student Learning Outcomes for Courses and Programs

From Council on Higher Education Accreditation – Statement on Shared Responsibilities

Student Learning Outcomes should:
- Communicate what students will be able to do after they successfully complete the program/course
- Be representative of the program/course performance, defining for students the accomplishments expected from program/course participation
- Be verifiable through replication by third-party inspection
- Be relevant to the curriculum

Measurements may be direct and/or indirect. Examples of each are below:
- Direct measurements: exams, graded assignments related to outcomes, professionally judged demonstrations or performances, portfolios
- Indirect measurements: student self-perceptions, employer surveys or job placement, focus groups

Assessment of student learning outcomes should use properties of good evidence:
- Comprehensiveness – measures a full range of outcomes
- Multiple judgment – uses several sources
- Multiple dimensions – indicates different facets of student performance related to student learning outcomes to show strengths and weaknesses
- Directness – involves direct scrutiny of student performance
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<td>BOR</td>
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<td>Course Content Guide</td>
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<td>General Education Requirement</td>
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<td>General Education Review Committee</td>
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<td>PAR</td>
<td>Program/Prefix Action Request</td>
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Section 1 - Introduction

1.1 Academic Boards of the Faculty Senate Principles of Operation

- Excellence in teaching, learning, and research is the indispensable core value of the University of Alaska Anchorage (UAA) mission, goals and activities. The Graduate Academic Board (GAB) and the Undergraduate Academic Board (UAB) of the Faculty Senate are the principal peer review committees charged to guide the University’s curricular processes.

- The university evaluates its achievements against appropriate regional, national, and international benchmarks. The academic boards devise evidence-based methods for the curriculum approval. The Curriculum Handbook is periodically revised to reflect policy and procedural changes.

- The academic boards are charged to identify areas for improvement, foster collaboration, and encourage an ethos of critical self-evaluation for all curriculum.

- The work of the academic boards is part of the normal and continuous cycle of curricular planning, monitoring, and improvement. It is emphasized that although the curricular products of the faculty reviewed and approved by the board are useful for purposes of external review, they are primarily intended to promote and maintain excellence in teaching, learning, and research.

These Guidelines in the Curriculum Handbook describe the University of Alaska Anchorage’s process for approving all academic coursework developments. These guidelines should be used in conjunction with departmental requirements as appropriate.

Basis for Academic Board Review

Academic board approval is required for the following:

1. New permanent courses that will appear on the student’s transcript with academic credit.

2. New departmental programs such as:

   A. Undergraduate programs
      i. Occupational Endorsement Certificates
      ii. Undergraduate Certificates
      iii. Associate Degrees
      iv. Baccalaureate Degrees
      v. Minors

   B. Post-baccalaureate Certificates

   C. Graduate programs
      i. Graduate Certificates
      ii. Graduate Degrees

The maximum number of credits that may be required by a degree or certificate program will be for each level (BOR Policy and Regulation 10.04.030):

- Occupational Endorsement Certificates 29 credits
- Certificate 60 credits
- Associate Degree 75 credits
- Bachelor's Degree 132 credits
- Minors no maximum
- Master's Degree 45 credits
- Graduate Certificate 29 credits
Post-Baccalaureate Certificate  60 credits
Doctoral Degree  See program requirements

3. New policies or revisions to existing policies that affect the method of approval, content, or delivery of university courses or programs.

4. Substantial revision to the academic content of a course including
   A. Additions, modifications or deletions of major subject areas
   B. Any course that has not been offered at least once during the past 4 years (i.e., Course on a purge list that the discipline informs the Board it intends to deliver. See section 5.3 for additional information).

5. Changes having an impact on the study options available to prospective students, including changes to
   A. Selection/admission procedures and standards
   B. Prerequisites, co-requisites, and registration restrictions.

6. Changes responding to the professions, employers, or the wider community.

7. Changes resulting from the program’s response to academic assessment processes. Please refer to the current Academic Assessment Handbook for additional guidance regarding these activities.

8. Changes made to maintain the currency and vitality of the curriculum. It is recommended that no individual course be allowed to age more than 10 years without review and update by the program faculty. However, it is understood that all programs will differ with respect to the frequency of need for update and/or revisions.
Section 2 - Curriculum Screening Criteria

2.1 Issues in Curriculum Review

2.1.1 Curriculum Review
A request for a curriculum change should be reviewed for format, content, and the impact it has on the entire curriculum and general direction of the school or college in relation to the university. Curriculum review bodies are asked to review any change carefully with respect to the program initiating the change and to other academic programs.

At any time a curriculum change is brought before a review body, the program or course will be reviewed in total as outlined in this handbook.

If a Course Action Request (CAR) for a credit-bearing course, program, or policy is submitted for processing and that CAR has been disapproved at any level prior to UAB/GAB review, then that particular curricular action is placed on the agenda of UAB/GAB for review and recommendation.

Pertinent academic considerations:
A. Course or program is designed with the appropriate content and student learning outcomes, with learning experiences that enable students to achieve the stated learning outcomes, and with evaluation methods that enable faculty to assess student achievement of those learning outcomes.
B. Justification for the change
C. Effect on resources within the program
D. Frequency of course offerings for new programs.  
   Note: Deans/Directors may require this information for new courses.
E. Impact on other affected UAA programs and courses
F. Implementation Dates must be in line with catalog and scheduling deadlines.

2.1.2 Academic Considerations Addressed in Review
The faculty member initiating the curriculum action should be prepared to address the following and any other appropriate issues that members of the curriculum review committees may ask when the curriculum action is presented to the appropriate boards/committees at each level of review.

A. Academic considerations for a new course proposal:
   i. School/college offering this course is the appropriate academic unit
   ii. Appropriate prerequisites for content and level
   iii. Availability of prerequisites for this course
   iv. Frequency of scheduling of course
   v. Justification for stacking or cross listing
   vi. Duplication with any other existing courses is explained
   vii. Documented coordination with the impacted/affected departments
   viii. Identifiable accreditation or nationally accepted practice standards
   ix. Rationale for requiring this course in a program
   x. If a new prefix is requested, the prefix must be approved prior to developing the curriculum

B. Courses that will become program electives/selectives:
   i. Effect of this course on other electives/selectives
   ii. Enhancement of a program by this course
   iii. Increase in options for specialization within the major
   iv. Effect on scheduling of other program electives

C. Courses that will become General Education Requirements (GERs):
i. Addresses GER student learning outcomes from the GER Preamble
ii. Meets category definition from Board of Regents Regulation (www.alaska.edu/bor/policy-regulations/)
iii. Addresses and assesses GER student learning outcomes for the classification descriptions described in the catalog (www.uaa.alaska.edu/records/catalogs/catalogs.cfm) and this handbook
iv. Provides rationale for adding this course to the GER menu

D. Resource implication considerations for new course proposals:
   i. Commitment from resource manager to support course offerings
   ii. Effects on other offerings within a program or school
   iii. Effect on offering other required courses
   iv. Effect on electives and selectives
   v. If the course was offered as a trial course, the number of times it was offered and the number of enrollments

2.1.3 Review of Program Proposals
   A. Program description adequately expresses the program characteristics, requirements and student learning outcomes.
   B. The proposing unit is clearly prepared to present the program based on available faculty numbers and expertise, support staff, fiscal resources, facilities and equipment.
   C. Needs analysis for the new program is attached.
   D. Coordination has occurred with appropriate departments, schools, and colleges and documentation is submitted to the Governance Office.
   E. Possible duplication of an existing program is addressed.
   F. All courses used in the creation or modification of a degree or certificate program have current Course Content Guides on file in the Office of the Registrar. These must contain all of the required elements described in Section 9 of this handbook. If courses are ill-defined or outdated they must be revised at the same time or before the program addition or modification is proposed.
   G. When proposing multiple certificates in a given discipline their requirements must differ by at least 6 credits. Otherwise the program should be proposed as a single certificate with emphasis areas.

2.1.4 Program Student Learning Outcomes
   A. Program Student Learning Outcomes are to be clearly stated as the knowledge or abilities that students are expected to demonstrate upon successful completion of the program.
   B. Program Student Learning Outcomes and a plan for their assessment are to be developed in accordance with the guidance and requirements found in the Academic Assessment Handbook (http://www.uaa.alaska.edu/governance/academic_assessment_committee/handbook.cfm).
   C. Program Student Learning Outcomes are to be published in the catalog for student use in evaluating and selecting their academic program.
   D. Programs whose external accreditors require program objectives should state these clearly as the knowledge or abilities that students are expected to demonstrate after completion of the program.
   E. A complete and valid Academic Assessment Plan must be presented to the Academic Assessment Committee and the Office of Academic Affairs (OAA) at ayaac@uaa.alaska.edu in accordance with the requirements of the Academic Assessment Handbook. Note: Academic boards do not evaluate the Program Student Learning Outcomes or Academic Assessment Plan, however the Academic Assessment Plan must be complete, approved through the Dean, and submitted to ayaac@uaa.alaska.edu for review by the Academic Assessment Committee when a new program is submitted to the academic boards. Following AAC review of the Academic Assessment Plan, an informational item is sent to the Faculty Senate.
F. If this action requires BOR review, see Regents’ Policy and Regulation (www.alaska.edu/bor/policy-regulations/).

G. If this action requires notifying the Commission on Colleges refer to their website at www.nwccu.org.
Section 3 - Curriculum Approval Process for Courses, Programs and Prefixes

Any new degree program, and/or new course required for a degree program, wherever initiated within UAA, requires approval by UAB/GAB. Programs include certificates and occupational endorsements; associate, baccalaureate, post-baccalaureate, and graduate degrees; Minors; and regional studies. Non-credit courses, CEU courses, and Workforce Credential programs are not reviewed or approved by UAB/GAB as indicated in the curriculum approval process below.

3.1 Curriculum Approval Process

1. Except as noted in sections 3.2 and 3.3, all courses, programs (with the exception of doctoral programs), and prefixes follow the approval process presented in this section. The approval process for doctoral programs is found in section 3.8.

2. Curriculum must be initiated by a faculty member, reviewed by the department’s curriculum committee/chair, the school/college curriculum committee, and finally the dean/director of the school/college.

3. The term “faculty initiator” will use the definition of faculty from the Faculty Senate Constitution (http://www.uaa.alaska.edu/governance/facultysenate/constitution.cfm) except in the special cases listed.

   Special cases: There may be special circumstances where a program has no tenure-track or term faculty. In these cases, an adjunct faculty member who has been approved to teach a course or has special expertise in the content area of the program may initiate course and program curriculum changes under the sponsorship of a tenure-track or term faculty member as defined above. It is recommended that the initiating faculty member and the faculty sponsor sign the CAR/PAR.

   New programs must be initiated by tenure-track or term faculty as defined in the Faculty Senate Constitution. An adjunct faculty member who has expertise in the area may be consulted by the faculty initiator(s).

4. All templates are available on the Governance website at www.uaa.alaska.edu/governance. Faculty initiators should ensure that documents are prepared using Microsoft Word. Course proposals must be submitted using the CAR, and program/prefix proposals must be submitted using the PAR.

5. Proposers of any curriculum action should refer initial questions to their discipline-specific curriculum committees. Further assistance may be sought from college curriculum committees, and in the last resort the Governance Office, to ensure the proposal is considered in a timely fashion.

6. Coordination should take place early in the curriculum process. Steps for coordination are found in sections 4, 5, 6, and 7 depending on the curriculum action under consideration.

7. The faculty initiator is responsible for the development of the required documents outlined in sections 4, 5, 6, and 7 and submission to the appropriate organizations. It is strongly recommended that the faculty initiator consult with Scheduling and Publications in the Registrar’s office when developing the CAR and PAR documents as outlined sections 10 and 11 of this handbook. Assistance with developing the CCG can be obtained from the school’s representatives on the academic boards, from the college curriculum committee, and section 9 of this handbook.

8. Curriculum proposals are reviewed by the college/school curriculum committee. The committee chair signs the CAR following the committee’s review.

9. A hard copy of the proposal is forwarded to the appropriate dean/director for review.

10. Following review, the dean/director signs the CAR and a hard copy of the curriculum proposal is forwarded to the Governance Office along with an electronic version in Microsoft Word format of the full proposal. Note: The Governance Office will accept electronic signed CARs as long as all signatures up to the Dean/Director level are present and legible and the approved or disapproved boxes are checked.
The Governance Office forwards noncredit, continuing education unit (CEU), -93s, -94s, and 500-level courses to the Office of the Registrar to be entered into the system.

The Governance Office forwards Workforce Credential proposals to OAA for review and approval.

Courses and programs to be published in the catalog, and prefix requests, are sent to UAB/GAB for review.

11. Any items needing UAB/GAB review must be received in the Governance Office by 9 a.m. Monday in order to be on the agenda for the Friday meeting of the same week. Initiating faculty member or faculty representative must present courses, programs and prefixes to UAB/GAB. Representatives should be prepared to answer all relevant questions as described in 2.1.2 or the proposal will be tabled. OAA will consult with initiating faculty during the review of Workforce Credentials.

12. After appropriate reviews are complete, the course, program or prefix appears in the next catalog or schedule for which the publication deadline was met, unless a later implementation date has been approved. See below for more information on implementation dates and deadlines for inclusion in the catalog. Note: meeting these deadlines does not guarantee all approvals can be obtained in time for inclusion in the next catalog.

New programs may have an implementation date of summer, fall, or spring. For new programs to be included in the catalog, first reading by the boards should be no later than the first meeting in January (See the UAA Curriculum and Catalog Production Calendar located on the Governance website [www.uaa.alaska.edu/governance] for current dates.

Existing programs with changes must have an implementation date of fall so that correct curriculum is in effect in current catalog. Changes to programs must be initiated with enough time to reach final approval prior to submission of catalog for printing (Recommend first reading no later than first meeting in March).

New courses may have an implementation date of summer, fall, or spring. Changes to existing courses may not be implemented for a term once registration has opened, implementation dates must be chosen for a future term. Note: course changes related to program changes must have an implementation date of fall. In order to have approval prior to fall registration opening, it is suggested that first reading take place no later than the first week in February.

13. After the final reading by UAB/GAB, the initiating faculty member is responsible for the preparation of the corrected final documents and submission to the Governance Office before UAA Faculty Senate takes action.

14. The Governance Office prepares the UAB/GAB reports for the UAA Faculty Senate. The Senate then reviews and acts on the proposed courses and prefixes.

15. OAA reports decisions regarding Workforce Credential proposals to the Faculty Senate through the Governance Office and to the BOR through SAC.

16. UAB/GAB chair signs CAR/PAR documents after approval by the Faculty Senate.

17. The Vice Provost for Undergraduate Academic Affairs reviews and acts on undergraduate courses and undergraduate and post-baccalaureate programs. The Vice Provost for Research and Graduate Studies reviews and acts on graduate courses and programs. The two Vice Provosts collaborate on the approval of prefixes.

18. New programs and programs with major changes (with the exception of Minors, Occupational Endorsements and Workforce Credentials) require approval through the BOR. After approval by the Faculty Senate, OAA works with the faculty initiator to prepare and submit the necessary documents (see section 7.3).

19. After approval by the Faculty Senate, the Vice Provost for Undergraduate Academic Affairs works with faculty initiators for Minors, Occupational Endorsements and Workforce Credentials to obtain approval as required from OAA and the Chancellor’s office and to prepared documents notifying NWCCU of the curriculum actions. Note: Workforce Credentials do not require Faculty Senate approval.
20. All new programs and programs with major changes require approval through the NWCCU. After approval by the BOR, OAA works with the faculty initiator to prepare and submit the necessary documents (see section 7.3). The appropriate Vice Provost approves new programs and programs with major changes only after approval is received from the NWCCU.

21. After final approvals are obtained from the Chancellor, Regents, and/or the NWCCU, Vice Provost approves the curriculum and returns the folders to the Governance Office. The Governance Office sends the approved courses, programs and prefixes to the Office of the Registrar.

22. New certificate programs may require an additional review and approval by the US Department of Education (US DoE) before admitted students are eligible for federal financial aid. This review is initiated by the UAA Director of Student Financial Aid after BOR approval of the program. US DoE approval usually occurs within 90 days of submission.

This approval process is depicted in Figures 3.1, 3.2, 3.3, and 3.4 for specific types of courses, programs, and prefixes.

3.2 Approval for Minor Changes to Undergraduate Credit Courses

3.2.1 All Undergraduate Credit Courses Numbered 050 – 499

1. If a course title change is proposed by the prefix (initiating) department, and approved through the regular curriculum process, then the course title will be automatically changed wherever the course title appears in the catalog.

   The initiating department is required to coordinate with all impacted departments, using Box 13a of the CAR, and an additional spreadsheet, if necessary. e.g., ENGL A450 required in English for Speakers of Other Languages (ESOL) 7-12 Concentration (Graduate program in COE).

2. If prerequisites within the prefix department are changed in 050-499 courses, the initiating department must complete a CAR to be approved through the regular curriculum process. No Course Content Guide will be required so long as the course has been updated within the past 4 years.

   The initiating department is required to coordinate with all impacted departments. The impacted departments must be listed in Box 13a of the CAR, with an additional spreadsheet, if necessary.

3. If registration restrictions within the prefix department are changed in 050-499 courses, the initiating department must complete a Course Action Request (CAR) to be approved through the regular curriculum process. No Course Content Guide (CCG) will be required so long as the course has been updated within the past 4 years. The initiating department is required to coordinate with all impacted departments. The impacted departments must be listed in Box 13a of the CAR, with an additional spreadsheet, if necessary.

3.2.2 Lower Division Undergraduate Credit Courses Numbered 050 – 299 Only

Minor changes that do not substantially affect the intent or content of lower division courses are handled by the school/college curriculum committee or community campus instructional council. These changes include the following that do not affect the quality of the curriculum:

1. Course number change at the same level
2. Grammatical change in course description
3. Co-requisite changes that only affect the prefix department
4. Fee change
5. Course description change that does not change course intent (e.g., USSR to Russia, Word 2003 to Word 2010)
6. Updating of the bibliography.
The school/college curriculum committee or community campus instructional council is responsible for ensuring that proper coordination has occurred. Upon final approval by the college dean or director, courses with the types of changes listed above are forwarded to the Governance Office for transmittal to the Office of the Registrar.

These course actions are placed on the UAB agenda as informational items. Any UAB member may request that an information item be changed to an action item. No action can be taken on an action item until after it has been placed on the next meeting’s agenda.

3.3 Approval of Minor Catalog Changes

The following catalog changes are considered minor changes and do not have to be reviewed by the UAB/GAB. These changes can be implemented by program faculty during the annual catalog copy review processes conducted by the Office of the Registrar.

Minor Changes:
1. Contact information, location, and web address
2. General Discipline information
   a. Degree or Certificate program
   b. Overview and career information
   c. Accreditation
   d. Research possibilities
2. Advising
3. Academic Progress Requirements

3.4 Approval for substantive changes to courses numbered 050 - 299, for all changes to courses numbered 300 - 499, and for additions or deletions of all academic credit courses.

Additions, deletions, or changes that have a substantive effect on the intent, content or student learning outcomes of any courses numbered 050 to 299 require approval through the established governance process and UAB action as shown at the beginning of this section.

Additions, deletions or changes to any 300- or 400-level course with a permanent number, wherever initiated within UAA, require approval through the established governance process and UAB action as shown at the beginning of this section.

The approval process for these courses is found in section 3.1 and is depicted in Figure 3.1.

3.5 Approval of 600-Level Courses

A new or revised 600-level course with a permanent number, wherever initiated within UAA, requires GAB action. School/college curriculum committee or community campus instructional council takes responsibility for the following changes that do not affect the intent and quality of the curriculum:
1. Title change
2. Course number change at the same level
3. Grammatical change in course description
4. Prerequisite change that involves only the prefix department
5. Fee change
6. Course description change that does not change course intent (e.g., USSR to Russia, Word 2003 to Word 2010)
7. Updating of the bibliography

Upon final approval by the college dean or director, courses with the types of changes listed in 1-7 are forwarded to the Governance Office for transmittal to the Office of the Registrar. These course actions are placed on the GAB agenda as informational items. Any GAB member may request that an information item be changed to an action item. No action can be taken on an action item until after it has been approved by the GAB.

The community campus director will work with the appropriate school/college dean to obtain review and approval for offering of a graduate course.

The approval process for 600 level courses is found in section 3.1 and is depicted in Figure 3.1.

3.6 Approval of 500-Level Courses

These courses are offered for professional development credit only. The UAB is responsible for UAA policy associated with 500-level courses.

The appropriate dean/director or designee has authority for initial approval and offering of 500-level courses. Each college offering 500-level courses must have policies and procedures in place that guarantee appropriate faculty review and course quality.

Approved courses are forwarded through the Governance Office to the Office of the Registrar to be entered into the system and are listed in the curriculum log posted on the Governance website (www.uaa.alaska.edu/governance).

The approval process for 500 level courses is found in section 3.1 and is depicted in Figure 3.2.

3.7 Approval of Non Credit Courses Numbered AC000-AC049 or A000-A049 and changes to these courses

These courses are not offered for academic credit. Courses numbered AC000-AC049 earn Continuing Education Units (CEU) and may be used for Workforce Credentials. These courses are approved as indicated in the approval process outlined in section 3.1.

The approval process for non-credit and CEU courses is found in section 3.1 and is depicted in Figure 3.2.

3.8 Approval of Doctoral Programs

The program approval process in section 3.1 is not applicable to doctoral programs.

It is necessary for programs to consult with OAA before starting work on doctoral program proposals. The primary point of contact with OAA is the Vice Provost for Research and Graduate Studies.

The doctoral approval process consists of two stages: A Justification Proposal and a Full Proposal.
Justification Proposal

The Justification Proposal is a relatively brief document that addresses how the proposed doctoral program meets specific criteria important to the process for deciding if the program is viable and needed. This proposal requires that the basic structure of the program be well designed to meet standards that will ensure that the program is likely to be successful. At this stage, the curriculum pieces (PAR, CAR, and CCG) are not to be included. Section 3.8.1 is the Justification Proposal Outline and includes all the criteria for the proposal. The Justification Proposal follows the normal curriculum approval process through the Provost and Chancellor with additional review by the Graduate Council and the Dean of Graduate Studies.

Full Proposal

The Full Proposal is an expansion on the Justification Proposal and includes the curriculum documents. The Full Proposal's main purpose is to demonstrate that the proposed program meets the standards of all applicable accreditation agencies. The program must identify all relevant accreditation standards and demonstrate how the program meets the standards. This document is essentially an accreditation self-study document. As a part of the Full Proposal package, the program will fill out a checklist where they will indicate that certain criteria important to the institution are addressed in the package. If a particular item on the checklist is not included in the accreditation analysis, then the program will be required to include an analysis of how the particular institutional requirement is met. Section 3.8.2 is the Full Proposal Outline and includes all the criteria for the proposal. The Full Proposal follows the normal curriculum approval process through the Provost and Chancellor with additional review by the Graduate Council and the Dean of Graduate Studies. Once approved at UAA the full proposal is forwarded to the UA Board of Regents and the NWCCU by the UAA Office of Academic Affairs.

3.8.1 Justification Proposal

The purpose of this document is to articulate to individuals and groups in the campus curriculum approval process the relevant details of the proposed program so that decisions can be made relative to the viability of the proposed program. The proposal must include the following sections and address the identified issues. Do not include curriculum (i.e., PAR, CARs, and CCGs) documents at this stage.

The justification proposal is be to reviewed and approved, with signatures, by the proposing department, the applicable college or school curriculum committee and Dean, the Graduate Council and Dean of the Graduate School, the Graduate Academic Board, the Faculty Senate, and the Provost.

Prior to approval by the Provost an external review (which may include a site visit if determined to be needed at the justification level) shall be conducted. This review is to focus on need, demand, program quality, and physical resources. The review panel is to consist of three highly qualified individuals from the profession and/or peer institutions in the specific field/discipline of the proposed program. The unit proposing the doctorate recommends potential members of the review panel; however the members of the review panel are selected and appointed by the Provost.

1. Brief Description of the Proposed Doctorate (Maximum of one page, 1.5 spaced and 12 point font)
   (Name, degree initials, proposed by (person, department, college), brief description of the target group of students, brief description of the key characteristics of the degree; mission statement; Key objectives as expressed as learner outcomes-no more than six; mode of offering; relationship to, and impact on, existing programs and courses)

2. Justification of the Proposal on the Basis of Need (Maximum of two pages; include as appendices statements from professional associations etc.)
   (Typical headings include: needs in the profession, needs in the state, needs in terms of training high level leaders, relevance for higher education employment, employment demands)

3. Justification of the Proposal on the Basis of Prospective Student Demand (Maximum of two pages; include as appendices the survey used)
4. Identify Several Peer Programs (Maximum of one page)
(Are there any similar programs at UA, other Alaska universities; describe, and provide web links for, peer programs and name of their universities)

5. Brief Description of the Entry Requirements (Maximum of one page)
(Clearly articulate admissions requirements, such as Degree level, previous professional experience, or other prerequisite requirements. Describe the process for selecting students. Note that each doctoral program is required to have an admissions committee of at least three members.)

6. Faculty Qualifications (Maximum one page; summarize in a table with 6 columns as below)
(Personnel; highest degree; top 5 refereed publications in the last five years; no more than 5 key presentations in the last 5 years; external competitive research grants won in the last 5 years; significant industrial/professional experience in that field in the last 5 years)

7. Student Services (Maximum of one page)
(Indicate advising, office space, scholarships, graduate assistantships, student assistantships, conference attendance)

8. Facilities and Resources (Maximum of two pages; to be signed by the Dean)
(Need for staffing, additional faculty, technicians, additional lab space, additional plant, equipment, technology, consumables, library resources network infrastructure, etc.)

9. Budget and Cost Analysis (Maximum of one page)
(Specific budget proposal; revenue streams; sustainability; up-front costs; ongoing costs; external funding; UA funding)

10. Identify Relevant Accreditation Agencies and Their Criteria (Maximum of two pages)
(NWCCU, State, National, and other professional organizations; provide links to the accreditation's web sites & criteria; How does the program meet basic eligibility and what are the biggest challenges in meeting the criteria.)

11. Program Catalog Copy
(Proposed catalog copy; new course titles, numbers, and descriptions)

3.8.2 Full Proposal

This document is used to show how the proposed program meets institutional and accrediting body criteria. The full curriculum (i.e., PAR, CARs, and CCGs) for the program is also to be included. This document is, in essence, an abbreviated self-study showing how the program meets applicable accreditation standards.

The full proposal is to be reviewed and approved, with signatures, by the proposing department, the applicable college or school curriculum committee and Dean, the Graduate Council and Dean of the Graduate School, the Graduate Academic Board, and the Faculty Senate.

Prior to approval by the Provost, the external review panel used in the justification proposal shall do a review of the full proposal and provide comments to the program and Provost.

The Office of Academic Affairs will work with the program to develop a final submittal to SAC, the UA Board of Regents, and the Northwest Commission on Colleges and Universities (NWCCU).

Required Outline:
1. **Introduction and Program Overview**
   (Name, degree initials, proposed by (person, department, college), brief description of the key characteristics of the degree; mission statement; key objectives expressed as learner outcomes-no more than six)

2. **Program Accrediting Standards (if any)**
   (Identify accrediting agency with hyperlinks to their standards; an item by item list of the standards and how the program plans to meet them)

3. **NWCCU Accrediting Standards**
   (an item by item list of criteria and how the program plans to meet the criteria)

4. **Institutional Checklist.**
   (As a minimum, the Full Proposal must address the following items. It is probable that many of the items are addressed in prior sections of the full proposal, so the requirement of this section is to provide an index to the parts of the proposal that address the indicated concerns. In the event that a specific concern has not been addressed, please provide discussion about how the proposed program addresses the concern. See the Justification Proposal instructions for the type of information required.)
   - **Justification on the Basis of Need:**
     Found in section ___________________
   - **Justification on the Basis of Prospective Student Demand:**
     Found in section ___________________
   - **Identify Several Peer Programs:**
     Found in section ___________________
   - **Entry Requirements:**
     Found in section ___________________
   - **Faculty Qualifications:**
     Found in section ___________________
   - **Student Services:**
     Found in section ___________________
   - **Facilities and Resources:**
     Found in section ___________________
   - **Budget and Cost Analysis:**
     Found in section ___________________

5. **Curriculum Documents**
   (PAR, Catalog Copy, CARs, and CCGs)

6. **Program-Academic Assessment Plan**

7. **Board of Regents PAR and Executive Summary**
NOTE: Coordination with affected units and faculty listserv (uaa-faculty@lists.uaa.alaska.edu) must occur at least 10 working days before consideration by UAB or GAB. See section 5 for details.

Also see section 5 for required documents and instructions.
Figure 3.2: Non-Permanent (-93, -94) Credit Course, 500-Level Course, and Noncredit/CEU Approval Process

NOTE: Coordination with the faculty listserv (uaa-faculty@lists.uaa.alaska.edu) must occur at least 10 working days before submittal to the Governance Office. See section 5 for details.

Also see section 5 for required documents and instructions.
A major revision of an existing program or the development of a new program must be discussed with the Office of Academic Affairs at ayooa@uaa.alaska.edu or 907-786-1054 before the curriculum proposal is presented to UAB/GAB. It is best to meet with OAA at the start of program development.

NOTE: Coordination with affected units and faculty listserv (uaa-faculty@lists.uaa.alaska.edu) must occur at least 10 working days before consideration by UAB or GAB. See section 7 for details.

Figure 3.3: Program Approval Process
Before the curriculum proposal is presented to the school/college committees and UAB/GAB, consult with the Office of the Registrar at aypublications@uaa.alaska.edu for a new prefix.

NOTE: Coordination with affected units and faculty listserv (uaa-faculty@lists.uaa.alaska.edu) must occur at least 10 working days before consideration by UAB or GAB. See section 4 for details.

Also see section 4 for required documents and instructions.
A suspension to an existing program must be discussed with the Office of Academic Affairs at ayoaa@uaa.alaska.edu or 907-786-1054.

Figure 3.5: Degree and Certificate Suspension Approval Process
A deletion to an existing program must be discussed with the Office of Academic Affairs at ayoaa@uaa.alaska.edu or 907-786-1054.

Figure 3.5: Degree and Certificate Deletion Approval Process

19 Section 4 – Prefixes
Responsibility for prefixes and their associated courses are assigned to academic departments. All proposals to add, change, inactivate or transfer a prefix must originate with the academic program currently assigned to the prefix.

4.1 Changes to or Replacement of a Prefix

The school/college must discuss the change or replacement of prefix with the OAA before the proposal is presented to the UAB/GAB for review. OAA contact persons are the Vice Provost for Undergraduate Academic Affairs or the Assistant Vice Provost (ayoaa@uaa.alaska.edu, ph 907-786-1054).

1. The following must be submitted to the Governance Office (aygov@uaa.alaska.edu):
   a. A cover memo summarizing the proposal.
   b. Signed Program/Prefix Action Request (PAR; www.uaa.alaska.edu/governance/coordination/index.cfm)

   Note: The Governance Office will accept electronic signed PARs as long as all signatures up to the Dean/Director level are present and legible and the approved or disapproved boxes are checked.

   If the change of prefix affects a degree or certificate, a separate signed PAR must be submitted for each program change, together with revised catalog copy in Word using the track changes function. A Word copy of the current catalog is available on the Governance website (www.uaa.alaska.edu/governance).

2. Coordination should take place early in the curriculum process and consists of two steps:
   a. Coordination memo or email. Coordination is required when the change of prefix has any impact on another course or program. The faculty initiator must contact the department chair/director of every affected program and provide documentation of the changes to the affected programs upon request. Proof of coordination must be provided to the Governance Office.

   A list of impacted courses, programs and catalog references can be found by an electronic search of the UAA catalog using keywords such as MATH A172. A spreadsheet (www.uaa.alaska.edu/governance/coordination/index.cfm) is required listing the reference and the impact (program requirements, electives, selectives, course prerequisite, corequisites).

   b. The faculty initiator is also required to send an email to uaa-faculty@lists.uaa.alaska.edu explaining the addition or inactivation of the prefix. The coordination email must include contact information, as well as:

      • School and department (PAR boxes 1a and 1b),
      • Prefix (PAR box 2),
      • Type of Action (Add/Change/Delete) (PAR box 4),
      • justification for action (PAR box 8),
      • any other relevant information.

   The email must be sent at least 10 working days before being presented at UAB/GAB.

3. Approval of changes to or replacement of a prefix follows the curriculum approval process outlined in Section 3.

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4.2 Addition of a Prefix

The school/college must discuss the addition of a prefix with the OAA before the proposal is presented to the UAB/GAB for review. OAA contact persons are the Vice Provost for Undergraduate Academic Affairs and the Assistant Vice Provost (ayoaa@uaa.alaska.edu, ph 907-786-1054).

A new prefix must be requested from the Office of the Registrar. Email address is aypublications@uaa.alaska.edu

1. The following must be submitted to the Governance Office (aygov@uaa.alaska.edu):
   a. A cover memo summarizing the proposal.
   b. Signed PAR (www.uaa.alaska.edu/governance/coordination/index.cfm).
      
      Note: The Governance Office will accept electronic signed PARs as long as all signatures up to the Dean/Director level are present and legible and the approved or disapproved boxes are checked.
   c. If the addition of the prefix affects a degree or certificate, a separate signed PAR must be submitted for each program change, together with revised catalog copy in Word using the track changes function. A Word copy of the current catalog is available on the Governance website (www.uaa.alaska.edu/governance/).

2. Coordination should take place early in the curriculum process and consists of two steps:
   a. Coordination memo or email. Coordination is required when the new prefix has any impact on another course or program. The faculty initiator must contact the department chair/director of every affected program and provide documentation of the changes to the affected programs upon request. Proof of coordination must be provided to the Governance Office.
   b. The faculty initiator is also required to send an email to uaa-faculty@lists.uaa.alaska.edu explaining the addition of the prefix. The email must include contact information, as well as:
      - School and department (PAR boxes 1a and 1b),
      - Prefix (PAR box 2),
      - Type of Action (Add/Change/Delete) (PAR box 4),
      - justification for action (PAR box 8),
      - any other relevant information.

   The email must be sent at least 10 working days before being presented at UAB/GAB.

3. Approval of addition of a prefix follows the curriculum approval process outlined in Section 3.

4.3 Inactivation of a Prefix

The school/college must discuss the inactivation of a prefix with the OAA before the proposal is presented to the UAB/GAB for review. OAA contact persons are the Vice Provost for Undergraduate Academic Affairs and the Assistant Vice Provost (ayoaa@uaa.alaska.edu, ph 907-786-1054).

1. The following must be submitted to the Governance Office (aygov@uaa.alaska.edu):
   a. A cover memo summarizing the proposal.
   b. Signed PAR (www.uaa.alaska.edu/governance/coordination/index.cfm).
Note: The Governance Office will accept electronic signed PARs as long as all signatures up to the Dean/Director level are present and legible and the approved or disapproved boxes are checked.

If the inactivation of the prefix affects a degree or certificate, a separate signed PAR must be submitted for each program change, together with revised catalog copy in Word using the track changes function. A Word copy of the current catalog is available on the Governance website (www.uaa.alaska.edu/governance/).

2. Coordination should take place early in the curriculum process and consists of two steps:
   a. Coordination memo or email. Coordination is required when the inactivated prefix has any impact on another course or program. The faculty initiator must contact the department chair/director of every affected program and provide documentation of the changes to the affected programs upon request. Proof of coordination must be provided to the Governance Office.

   A list of impacted courses, programs and catalog references can be found by an electronic search of the UAA catalog using keywords such as MATH A172. A spreadsheet is required listing the reference and the impact (program requirements, electives, selectives, course prerequisite, corequisites).

   b. The faculty initiator is also required to send an email to uaa-faculty@lists.uaa.alaska.edu explaining the addition or inactivation of the prefix. The email must include contact information, as well as:
      - School and department (PAR boxes 1a and 1b),
      - Prefix (PAR box 2),
      - Type of Action (Add/Change/Delete) (PAR box 4),
      - justification for action (PAR box 8),
      - any other relevant information.

   The email must be sent at least 10 working days before being presented at UAB/GAB.

3. Approval to inactivate a prefix follows the curriculum approval process outlined in Section 3.

4.4 Transfer of a Prefix

A proposal to transfer responsibility for a prefix and its associated courses to an academic department other than the department currently assigned to the prefix requires approval from the Provost. The proposal consists of a memorandum of understanding between the departments stating the requested action and the reason for the action. The memorandum is to be signed by the department chairs of the two departments and the dean/director of each department. The memorandum of understanding is forwarded to OAA for consideration. Proposals approved by the Provost are forwarded to the Office of the Registrar to update relevant records.
Section 5 - Courses

5.1 Changes or Revisions to a Course

It is advisable to write the Course Content Guide (CCG) first. The information from the CCG can then be pasted into the CAR. Before developing the CCG, the following need to be considered in addition to the course content: type of course, level, number, whether it will be stacked or cross-listed, prerequisites and registration restrictions, instructor goals and student learning outcomes.

1. The following must be submitted to the Governance Office (aygov@uaa.alaska.edu):
   a. CAR signed by the faculty initiator, department chair, college curriculum committee chair, and the dean or director or designee. A faculty member may sign no more than two signature lines on the CAR. Exceptions to this rule may be permissible with supporting documentation. 
      Note: The Governance Office will accept electronic signed CARs as long as all signatures up to the Dean/Director level are present and legible and the approved or disapproved boxes are checked.
   b. Completed CCG.
   c. If the revised course changes the requirements of the program in which the course is housed, a signed PAR and catalog copy in Word using the track changes function must be provided. (See section 7)
   d. Signed Fee Request Form (one per course) for courses with new, deleted or revised fees. (www.uaa.alaska.edu/governance/coordination/index.cfm). The Fee Request Form is not required if there are no changes to existing fees.

2. Coordination should take place early in the curriculum process and consists of three steps:
   a. Coordination memo or email. Coordination is required when the revised course has any impact on another course or program. The faculty initiator must contact the department chair/director of every affected program and provide documentation of the changes to the affected programs upon request. Proof of coordination must be provided to the Governance Office.
   b. A list of impacted courses, programs and catalog references can be found by an electronic search of the UAA catalog using keywords such as MATH A172. A spreadsheet is required listing the reference, the impacted program/course/catalog copy, and the impact (program requirements, electives, selectives, course prerequisite, corequisites).
   c. The faculty initiator is also required to send an email to uaa-faculty@lists.uaa.alaska.edu explaining the revision. The coordination email must include contact information as well as:
      • School and department (CAR boxes 1a and 1c),
      • course prefix (CAR box 2),
      • course number (CAR box 3),
      • course title (CAR box 6),
      • Add/Change/Delete and if change, a summary list of changes (CAR box 8),
      • course description (CAR box 15),
      • justification for action (CAR box 19),
      • any other relevant information.
Do not attach the CAR/PAR or the CCG to the email. The coordination email must be sent at least 10 working days before being presented at UAB/GAB.

3. The faculty initiator is required to send the CAR and CCG to the library liaison for that department (http://consortiumlibrary.org/find/subject liaison librarians). It is suggested that this be done early in the curriculum process.

4. If the revised course is a GER, the appropriate guidelines must be followed (See Section 6). GER review templates are available at www.uaa.alaska.edu/governance/GER.

5. A course may not be scheduled nor registration for a course at UAA take place before the appropriate curriculum approval process has been completed and approved and the course has been entered into the system.

6. Changes or revisions to existing courses are approved through the curriculum approval process outlined in section 3.

5.2 Adding a New Course

It is advisable to write the CCG first. The information from the CCG can then be pasted into the CAR. Before developing the CCG, the following need to be considered in addition to the course content: type of course, level, number, whether it will be stacked or cross-listed, prerequisites and registration restrictions, instructional goals and student learning outcomes.

A course may not be scheduled nor registration for a course at UAA take place before the appropriate curriculum approval process has been completed and approved and the course has been entered into the system.

5.2.1 Permanent Credit Courses (050-499 and 600-699)

1. The following must be submitted to the Governance Office (aygov@uaa.alaska.edu):
   a. CAR signed by the faculty initiator, department chair, college curriculum committee chair, and the dean or director or designee.
      
      Note: The Governance Office will accept electronic signed CARs as long as all signatures up to the Dean/Director level are present and legible and the approved or disapproved boxes are checked.
   b. Completed CCG.
   c. If the new course changes the requirements of the program in which the course is housed, a signed PAR and catalog copy in Word using the track changes function must be provided.
   d. Signed Resource Implication Form (one per discipline). Signed Fee Request Form (one per course) for courses with new or revised fees (www.uaa.alaska.edu/governance/coordination/index.cfm). The Fee Request Form is not required if the course does not have fees or an existing general program fee is to be applied.

2. Coordination should take place early in the curriculum process and will consist of three steps:
   a. Coordination memo or email. Coordination is required when the new course has any impact on another course or program. The faculty initiator must contact the department chair/director of every affected program and provide documentation of the changes to the affected programs upon request. Proof of coordination must be provided to the Governance Office.
      
      A list of impacted courses, programs and catalog references can be found by an electronic search of the UAA catalog using keywords such as MATH A172. A spreadsheet is required listing the
Section 5 – Courses

reference, the impacted program/course/catalog copy, and the impact (program requirements, electives, selectives, course prerequisite, corequisites).

b. The faculty initiator is also required to send an email to uaa-faculty@lists.uaa.alaska.edu explaining the new course. The coordination email must include contact information as well as:

- School and department (CAR boxes 1a and 1c),
- course prefix (CAR box 2),
- course number (CAR box 3),
- course title (CAR box 6),
- Add/Change/Delete and if change, a summary list of changes (CAR box 8),
- course description (CAR box 15),
- justification for action (CAR box 19),
- any other relevant information.

Do not attach the CAR/PAR or the CCG to the email. The coordination email must be sent at least 10 working days before being presented at UAB/GAB.

c. The faculty initiator is required to send the CAR and CCG to the Library Liaison for that department (http://consortiumlibrary.org/find/subject_liaison_librarians).

3. If the new course is proposed as a GER, the appropriate guidelines must be followed (See Section 6). GER review templates are available at www.uaa.alaska.edu/governance/GER).

4. The curriculum approval process to be followed is found in section 3.1 and is depicted in Figure 3.1

5.2.2 Non-Permanent (-93, -94) Credit Course, 500-Level Course, and Noncredit/CEU Course

1. The following must be submitted to the Governance Office (aygov@uaa.alaska.edu):

   a. CAR signed by the faculty initiator, department chair, college curriculum committee chair, and the dean or director or designee.

   Note: The Governance Office will accept electronic signed CARs as long as all signatures up to the Dean/Director level are present and legible and the approved or disapproved boxes are checked.

   b. Completed CCG.

   c. If the new course changes the requirements of the program in which the course is housed, a signed PAR and catalog copy in Word using the track changes function must be provided.

   d. Signed Resource Implication Form (one per discipline).

   e. Signed Fee Request Form (one per course) for courses with new or revised fees (www.uaa.alaska.edu/governance/coordination/index.cfm). The Fee Request Form is not required if the course does not have fees or an existing general program fee is to be applied.

2. Coordination should take place early in the curriculum process and consists of three steps:

   a. Coordination memo or email. Coordination is required when the new course has any impact on another course or program. The faculty initiator must contact the department chair/director of every affected program and provide documentation of the changes to the affected programs upon request. Proof of coordination must be provided to the Governance Office.

   A list of impacted courses, programs and catalog references can be found by an electronic search of the UAA catalog using keywords such as MATH A172. A spreadsheet is required listing the
reference, the impacted program/course/catalog copy, and the impact (program requirements, electives, selectives, course prerequisite, corequisites).

b. The faculty initiator is also required to send an email to uaa-faculty@lists.uaa.alaska.edu explaining the new course. The email must include contact information, as well as:
   - School and department (CAR boxes 1a and 1c),
   - course prefix (CAR box 2),
   - course number (CAR box 3),
   - course title (CAR box 6),
   - Add/Change/Delete and if change, a summary list of changes (CAR box 8),
   - course description (CAR box 15),
   - justification for action (CAR box 19),
   - any other relevant information.

Do not attach the CAR/PAR or the CCG to the email. The coordination email must be sent at least 10 working days before being presented at UAB/GAB.

c. The faculty initiator is required to send the CAR and CCG to the Library Liaison for that department (http://consortiumlibrary.org/find/subject_liaison_librarians).

3. The curriculum approval process to be followed is found in section 3.1 and is depicted in Figure 3.2
5.3 Deleting a Course

1. The following must be submitted to the Governance Office (aygov@uua.alaska.edu):
   a. CAR signed by the faculty initiator, the department chair, the college curriculum committee chair, and the dean or director or designee.
   
   Note: The Governance Office will accept electronic signed CARs as long as all signatures up to the Dean/Director level are present and legible and the approved or disapproved boxes are checked.
   
   b. Signed PAR, if needed. If the course deletion affects a degree or certificate, a separate signed PAR must be submitted for each program, together with revised catalog copy in Word using the track changes function.

2. When filling out the CAR, only the following boxes need to be completed:
   - Course Prefix (Box 2)
   - Course Number (Box 3)
   - Complete Course Title (Box 6)
   - Type of Action (Box 8)
   - Implementation Date (Box 11)
   - Cross Listed or Stacked (Box 12)
   - Coordination Email Date (Box 13b.)
   - Justification for Action (Box 19)

3. Coordination should take place early in the curriculum process and consists of two steps:
   a. Coordination memo or email. Coordination is required when the deleted course has any impact on another course or program. The faculty initiator must contact the department chair/director of every affected program and provide documentation of the changes to the affected programs upon request. Proof of coordination must be provided to the Governance Office.

   A list of impacted courses, programs and catalog references can be found by an electronic search of the UAA catalog using keywords such as MATH A172. A spreadsheet (www.uaa.alaska.edu/governance/coordination/index.cfm) is required listing the reference, the impacted program/course/catalog copy, and the impact (program requirements, electives, selectives, course prerequisite, corequisites).

   Reference to a deleted course in impacted programs and courses will be struck from the catalog and from Banner.
   
   b. The faculty initiator is also required to send an email to uaa-faculty@lists.uaa.alaska.edu explaining the deletion. The email must include contact information, and must be sent at least 10 working days before being presented at UAB/GAB.

4. Purge List
   A purge list is compiled annually for courses not offered successfully in the previous four academic years. If a course has not been successfully offered in the previous four academic years, then that course will be purged from the catalog unless the department responsible for the course provides a clear justification for retaining the course in the catalog. This justification must be submitted to UAB/GAB for review.

   Reference to a purged course in impacted programs and courses will be struck from the catalog and from Banner.
5. **GER Course Purge List**

UAA policy states that a course may not remain on the GER list if it has not been offered successfully at least once during the past four semesters, excluding summer. The list of GER courses will be provided to UAB by the Office of the Registrar each spring. Review of the GER list will be done annually by UAB in the spring semester.
Section 6 - General Education Requirement (GER)

6.1 General Education and General Course Requirements

The Associate of Arts degree program and programs at the baccalaureate level must comply with the UAA General Education Requirements specified for that program in the catalog. Associate of Applied Science degree programs and undergraduate certificate programs of 30 credits or more must have identifiable general education components in the areas of communication, computation and human relations. These components must be at the collegiate level, must require a combined effort equivalent to at least 6 academic credits (for the program), and their student learning outcomes must be assessed.

The student learning outcomes of these general requirements may be met through specific courses or through activities embedded in the major requirements. If embedded, programs will be asked to identify the number and types of exercises used to fulfill these requirements and to describe their assessment methods.

When an action involves a change in GER, the UAB will refer the action, preferably with recommendations, to the General Education Review Committee (GERC).

When an action involves a change in the GER, the faculty initiator must communicate with all affected faculty in school/colleges, community campuses (including Prince William Sound Community College), deans, and their assistants.

All GER courses must have instructional goals and assessable student learning outcomes that are consistent with the current UAA catalog GER category descriptors and the appropriate GER Student Learning Outcomes. See the Governance webpage at www.uaa.alaska.edu/governance/GER.

All GER courses are subject to ongoing review and approval through the normal Governance process on a cycle, proposed by the departments and approved by the colleges, which must not exceed 10 years.

The GERC is a standing committee of the UAB reporting to the UAB.

The GERC review process is as follows:

1. Department/school/college prepare proposal and coordinate
2. UAB agenda (first reading)
3. GER Committee of UAB
4. UAB agenda (second reading)
5. Faculty Senate (approved actions of UAB only)
6. Administration (approved actions of the UAA Faculty Senate only)

6.2 Revision of or Request for GER Course

It is advisable to write the CCG first. The information from the CCG can then be pasted into the CAR. Before developing the CCG, the following need to be considered in addition to the course content: type of course, level, number, whether it will be stacked or cross-listed, prerequisites and registration restrictions, instructor goals and student learning outcomes.

1. Additional Considerations:
   • Inter MAU coordination to facilitate transfer between campuses.
     ○ Courtesy coordination is recommended to determine potential transfer conflicts.
Check other campus’ catalogs to see if they have a course with the same prefix and number.

If this is the case and the course is not a GER, consider using a new, unused (at all MAUs) course number if making this course a GER at UAA. The registrar’s office can provide assistance with course number suggestions.

If a new number is inappropriate, please bring transfer concerns to the attention of the GERC.

The appropriate GER template must be applied (www.uaa.alaska.edu/governance/)

Addresses appropriate GER student learning outcome(s) from the GER Preamble (www.uaa.alaska.edu/records/catalogs/catalogs.cfm)

1. Communicate effectively in a variety of contexts and formats;
2. Reason mathematically and analyze quantitative and qualitative data competently to reach sound conclusions;
3. Relate knowledge to the historical context in which it developed and the human problems it addresses;
4. Interpret different systems of aesthetic representation and understand their historical and cultural contexts;
5. Investigate the complexity of human institutions and behavior to better understand interpersonal, group and cultural dynamics;
6. Identify ways in which science has advanced the understanding of important natural processes;
7. Locate and use relevant information to make appropriate personal and professional decisions;
8. Adopt critical perspectives for understanding the forces of globalization and diversity; and
9. Integrate knowledge and employ skills gained to synthesize creative thinking, critical judgment and personal experience in a meaningful and coherent manner.

Meets category definition from Board of Regents Regulation (www.alaska.edu/bor/policy-regulations/)

Addresses and assesses GER student learning outcomes for the classification descriptions described in the catalog (www.uaa.alaska.edu/records/catalogs/catalogs.cfm) and this handbook

- **Oral communication skills.** Students:
  - develop both their message creation and message interpretation skills in order to be more successful communicators.
  - develop an awareness of the role of communication in a variety of human relationships.
  - develop and implement effective and appropriate communication skills, including the ability to develop, organize, present and critically evaluate messages; analyze audiences; and adapt to a variety of in-person communication settings.

- **Quantitative skills.** Students:
  - develop their algebraic, analytic and numeric skills; use them to solve applied problems.
  - correctly explain their mathematical reasoning.

- **Written communication skills.** Students:
  - practice methods for establishing credibility, reasoning critically and appealing to the emotions and values of their audience.
  - write for a variety of purposes and audiences by employing methods of rhetorical and cultural analysis.
  - develop the tools to read, think and write analytically about print and nonprint texts and to generate texts that engage their own perceptions while synthesizing the ideas of texts and scholars.
demonstrate their ability to communicate effectively by selecting form and content that fits the situation; adhering to genre conventions; adapting their voice, tone, and level of formality to that situation; and controlling stylistic features such as sentence variety, syntax, grammar, usage, punctuation and spelling.

- **Fine arts.** Students should be able to:
  - identify and describe works of art by reference to media employed, historical context and style, and structural principles of design and composition.
  - interpret the meaning or intent of works of art and assess their stylistic and cultural importance by reference to their historical significance, their relationship to earlier works and artists, and their overall impact of subsequent artistic work.

- **Humanities.**
  Students who complete a **content-oriented** course in the humanities should be able to:
  - identify texts or objects, place them in the historical context of the discipline,
  - articulate the central problems they address and provide reasoned assessments of their significance.

  Students who complete a **skills oriented** humanities course in **logic** should be able to:
  - identify the premises and conclusions of brief written arguments,
  - evaluate their soundness or cogency, and recognize common fallacies.
  - use a formal technique to determine the validity of simple deductive arguments and
  - evaluate the adequacy of evidence according to appropriate inductive standards.

  Students who complete a **skill-oriented** humanities course in a **language** should:
  - demonstrate proficiency in listening, speaking and writing.

- **Natural sciences.** Student will:
  - Be able to apply the scientific method by formulating questions or problems, proposing hypothetical answers or solutions, testing those hypotheses, and reaching supportable conclusions.
  - demonstrate an understanding of the fundamentals of one or more scientific disciplines,
  - demonstrate a knowledge of the discoveries and advances made within that discipline, and the impact of scientific information in sculpting thought and in providing the foundations for the technology in use at various times in history.

  Students completing the laboratory class will:
  - demonstrate the ability to work with the tools and in the settings encountered by professionals in the discipline,
  - critically observe materials, events or processes, and
  - accurately record and analyze their observations.

- **Social sciences.** Students will be able to:
  - describe the discipline she or he has studied and discuss the key principles or themes that unify it.
  - describe and contrast key scientific theories and theoretical approaches in a discipline and the ways in which these theories structure social scientists’ thinking and research.
  - demonstrate the ability to think critically about how society works and how our social realities are created by diverse social processes and cultural practices. Describe the wide range of social science data and the importance of using empiricism, both qualitative and quantitative, in making claims about the social world and in setting evidence-based social policy.
  - explain and use basic social science methods and summarize the assumptions behind and the limitations of inductive or deductive approaches that might include: the formulation of
research questions and hypotheses; data collection and analysis; and testing, verifying, and rejecting hypotheses.

**Integrative capstone.** Students must:
- demonstrate the ability to integrate knowledge by accessing, judging and comparing knowledge gained from diverse fields and by critically evaluating their own views in relation to those fields.

- Provides rationale for retaining or adding this course to the GER menu
- Integrative capstone courses that restrict registration to completion of Tier I GERs should use the following registration restriction verbiage: Completion of Tier I (basic college-level skills) courses.

Actions involving changes in GER are referred to the GERC after first reading at UAB. After GERC review and approval, the second reading takes place at UAB.

2. The following must be submitted to the Governance Office (aygov@uaa.alaska.edu):
   a. Signed CAR.
      
      *Note: The Governance Office will accept electronic signed CARs as long as all signatures up to the Dean/Director level are present and legible and the approved or disapproved boxes are checked.*

   b. Completed CCG.
      If the new or revised course affects a degree or certificate, a separate signed PAR must be submitted for each program change, together with revised catalog copy in Word using the track changes function. A Word copy of the current catalog is available on the Governance website (www.uaa.alaska.edu/records/catalogs/catalogs.cfm).

   c. Signed Fee Request Form (one per course) for courses with new, deleted or revised fees. (www.uaa.alaska.edu/governance/coordination/index.cfm). The Fee Request Form is not required if there are no changes to existing fees.

3. Coordination should be done early in the process and consists of three steps:
   a. Coordination memo or email. Coordination is required when the new course has any impact on another course or program. The faculty initiator must contact the department chair/director of every affected program and provide documentation of the changes to the affected programs upon request. Proof of coordination must be provided to the Governance Office.

      A list of impacted courses, programs and catalog references can be found by an electronic search of the UAA catalog using keywords such as MATH A172. A spreadsheet is required listing the reference, the impacted program/course/catalog copy, and the impact (program requirements, electives, selectives, course prerequisite, corequisites).

   b. The faculty initiator is also required to send an email to uaa-faculty@lists.uaa.alaska.edu explaining the revision or new course. The email must include contact information, as well as:
      - School and department (CAR boxes 1a and 1c),
      - course prefix (CAR box 2),
      - course number (CAR box 3),
      - course title (CAR box 6),
      - Add/Change/Delete and if change, a summary list of changes (CAR box 8),
      - course description (CAR box 15),
• justification for action (CAR box 19),
• any other relevant information.

Do not attach the CAR/PAR or the CCG to the email. The coordination email must be sent at least 10 working days before being presented at UAB/GAB.

c. The faculty initiator is required to send the CAR and CCG to the library liaison for that department (http://consortiumlibrary.org/find/subject_liaison_librarians).

4. GER courses are approved through the curriculum approval process outlined in section 3.

5. GER changes should have a Fall implementation date. To ensure approval is received in time, the faculty initiator should consult the curricular production calendar on the Governance website. Curriculum must have first reading at UAB by the third Friday in February to be considered for Fall implementation.

6.3 Deletion of a GER Course

UAA policy states that a course may not remain on the GER list if it has not been offered successfully at least once during the past four semesters, excluding summer sessions. The purge list of GER courses will be provided to UAB by the Office of the Registrar each spring. Review of the GER list will be done annually by UAB in the spring semester.
Section 7 - Programs

7.1 Minor Revisions to Programs

*Minor Revisions to Programs are changes that do not ‘substantially alter the student learning outcomes of the program’*

Also refer to UA Regulation 10.04.02 [www.alaska.edu/bor/policy-regulations/](http://www.alaska.edu/bor/policy-regulations/)

Minor program revisions are approved through the standard curriculum review process at UAA as outlined in section 3. The final approval rests with the Provost. Reviews by SAC, the BOR and NWCCU are not necessary.

The school/college must discuss the proposal to determine the magnitude of the change and the document requirements with the OAA.

**OAA contact persons are Accreditation Liaison Officer and either the Vice Provost for Undergraduate Academic Affairs for undergraduate programs or the Vice Provost for Research and Graduate Studies for graduate programs**([ayoa@uaa.alaska.edu](mailto:ayoa@uaa.alaska.edu)).

1. The following must be submitted to the Governance Office ([aygov@uaa.alaska.edu](mailto:aygov@uaa.alaska.edu)):
   a. PAR signed by the faculty initiator, the department chair, the curriculum committee chair, and the dean or director or designee ([www.uaa.alaska.edu/governance/coordination/index.cfm](http://www.uaa.alaska.edu/governance/coordination/index.cfm)). A faculty member may sign no more than two signature lines on the PAR. Exceptions to this rule may be permissible with supporting documentation.

   *Note: The Governance Office will accept electronic signed PARs as long as all signatures up to the Dean/Director level are present and legible and the approved or disapproved boxes are checked.*

   b. Complete program catalog copy in Word using the track changes function including student learning outcomes for the program. A Word copy of the current catalog is available on the Governance website ([www.uaa.alaska.edu/governance](http://www.uaa.alaska.edu/governance)) under Quick Links.

   c. All course CARs and CCGs for new and revised courses.

   d. Four-Year Course Offering Plan for the program.

   e. Signed Resource Implication Form.

   f. Signed Fee Request Form (for new, deleted or revised fees).

   g. Programs designated as Gainful Employment programs must also complete additional documentation for the Financial Aid office.

2. Coordination should take place early in the process and consists of three steps:

   a. Coordination memo or email. Coordination is required when the revision has any impact on another course or program. The faculty initiator must contact the department chair/director of every affected program and provide documentation of the changes to the affected programs upon request. Examples are when courses are deleted/added to a program or when prerequisites/registration restrictions are changed. Proof of coordination must be provided to the Governance Office.

   b. The faculty initiator is also required to send an email to [uaa-faculty@lists.uaa.alaska.edu](mailto:uaa-faculty@lists.uaa.alaska.edu) explaining the revision. The email must include contact information, as well as:

   * School and department (PAR boxes 1a and 1b),
• Complete Program Title (PAR box 2),
• Type of Program (PAR box 3),
• Type of Action (Add/Change/Delete) (PAR box 4),
• justification for action (PAR box 8),
• any other relevant information.

The email must be sent at least 10 working days before being presented at UAB/GAB.

c. The faculty initiator is required to send the CARs and CCGs to the library liaison for that department (http://consortiumlibrary.org/find/subject_liason_librarians).

The program approval process is outlined in section 3.

7.2 Programs which have MATH, ENGL, and/or COMM requirements

7.2.1 Programs which have MATH program requirements:

It is recommended that programs with specific MATH requirements use the following language in specifying the requirement:

“MATH A or any MATH course for which MATH A is in the prerequisite chain.”

Rationale: In programs with specific mathematics requirements (e.g., MATH A105), students can meet those requirements with either

a. A course specifically required by the program (e.g., MATH A105) or
b. A higher-level mathematics course (e.g., MATH A200) that has the specifically–required course (e.g., MATH A105) in its pre-requisite chain.

Rationale: This change will allow students who have taken MATH A200 to use this course in a program that requires MATH A105 without going through the petition process. Rewriting the requirement as indicated will reduce the number of petitions students must submit.

7.2.2 Programs which have ENGL A111 as a specific major requirement:

It is recommended that programs with a specific ENGL requirements use the following language in specifying the requirement:

“ENGL A111 or ENGL A1W- Written Communication GER.”

Rationale: In programs with ENGL A111 as a specific major requirement, students can meet that requirement with either

a. ENGL A111 or
b. Transfer course which meets Written Communication GER
Rationale: This change will allow use of transfer course work which meets Written Communication GER standards without going through the petition process. Rewriting the requirement as indicated will reduce the number of petitions students must submit.

7.2.3 Programs which have COMM A111, COMM A235, COMM A237, or COMM A241 as a specific major requirements:

It is recommended that programs with specific GER COMM requirement use the following language in specifying the requirement:

“Oral Communication Skills GER.”

Rationale: In programs which list Oral Communication Skills GER, students can meet those requirements with either

a. COMM A111, COMM A235, COMM A237, or COMM A241 or
b. Transfer course which meets Oral Communication GER

Rationale: Many programs currently have a specific requirement which mirrors that Oral Communication GER (Requires COMM A111, COMM A235, COMM A237, or COMM A241). Students who transfer in a communication class which meets GER but not specifically one of those courses must complete a petition. Rewriting the requirement as indicated will reduce the number of petitions students must submit.

7.3 New Non-Doctoral Programs and Major Changes to ALL Programs

The initiating department must discuss a proposal for a major revision of an existing program or the development of a new program with the appropriate dean and OAA before the curriculum proposal is presented to the college curriculum committee/UAB/GAB for review. Schools/colleges are encouraged to contact OAA early in the approval process. Proposals should include information listed in Section 4 of this handbook. OAA contact persons are the Vice Provost for Undergraduate Academic Affairs (ayoaa@uaa.alaska.edu) for assistance with undergraduate programs and the Vice Provost for Research and Graduate Studies for graduate programs.

This section applies to Workforce Credentials, Undergraduate Certificates, Associate Degrees, Baccalaureate Degrees, Minors, Post-Baccalaureate Certificates, Graduate Certificates and Master’s Degrees except as noted.

Also refer to UA Regulation 10.04.02 www.alaska.edu/bor/policy-regulations/

1. The OAA assists the faculty initiators in preparing the documents necessary for review and approval by the Board of Regents and NWCCU as needed. Depending on the nature of the proposal, these forms address the following issues:

a. Relationship of the proposed program relative to the educational mission of the University of Alaska and the MAU.

b. Collaboration with other universities and community colleges within the UA system.

c. History of the development of the proposed program or program changes.

d. Demand for the program, relation to State of Alaska long-range development, relation to other programs in the University that might depend on or interact with the proposed program, including the GER.
e. State needs met by the proposed program.
f. Availability of appropriate student services for program participants. A schedule for implementation of the program.
g. Student opportunities, student learning outcomes, and enrollment projections.
h. Rationale for the new program and educational objectives, student learning outcomes, and plans for assessment.
i. Opportunities for research and community engagement for admitted students.
j. Faculty and staff workload implications.
k. Fiscal Plan for the proposed program
l. Library, equipment, and additional resource requirements, including availability, appropriateness and quality.
m. New facility or renovated space requirements.
n. Concurrence of appropriate advisory councils.

2. The following documents must be submitted to OAA before the program can be sent to SAC, BOR, and NWCCU for review and approval, as necessary. These documents will not be reviewed by the academic boards. Forms and templates for these submittals are obtained from OAA.
   a. Four-Year Course Offering Plan for the Program.
   b. A budget worksheet.
   c. Board of Regents Program Action Request Form
   d. Board of Regents Prospectus and Executive Summary forms) which address all requirements and policies approved by SAC and BOR.
   e. Resource Implication Form and a signed Fee Request Form (if needed).
   f. An Academic Assessment Plan - student learning outcomes assessment plan for review by the Academic Assessment Committee.
   g. A risk management plan where required. This is developed in conjunction with the program’s Dean/Director, the Director of Risk Management, and legal counsel as needed.

3. In addition to the above documents, the following must be submitted to the Governance Office. These documents will be reviewed by the appropriate academic board for all new program proposals and proposals for major program changes (with the exception of Workforce Credentials) (aygov@uaa.alaska.edu):
   a. A cover memo summarizing the proposal.
   b. Signed PAR (www.uaa.alaska.edu/governance/coordination/index.cfm).
      
      Note: The Governance Office will accept electronic signed PARs as long as all signatures up to the Dean/Director level are present and legible and the approved or disapproved boxes are checked.
   c. Complete catalog copy in Word using the track changes function, including student learning outcomes for the program or a web address linked to the student learning outcomes. A Word copy of the current catalog is available on the Governance website (www.uaa.alaska.edu/governance/).
   d. CARs and CCGs for all new and revised courses.

4. The approval process for new programs and programs with major changes is outlined in section 3.
5. Degree and certificate requirements are effective from fall through summer of each catalog publication.

7.4 New Doctoral Programs

The initiating department must discuss a proposal for a new doctoral program with the appropriate dean and Vice Provost for Research and Graduate Studies before the curriculum proposal is presented to the college curriculum committee/GAB for review. Schools/colleges are encouraged to contact the Vice Provost for Research and Graduate Studies early in the approval process. Proposals should include information listed in Section 3.8 of this handbook.

1. The Vice Provost for Research and Graduate Studies assists the faculty initiators in preparing the documents necessary for review and approval by the Board of Regents and NWCCU as needed. These documents are described in Section 3.8.
   a. Justification Proposal. This proposal addresses criteria that are used to determine the viability and need for the program.
   b. Full Proposal. This proposal consists of the suite of curriculum documents needed to see the program through the UAA curriculum process, SAC review, BOR approval, and NWCCU acceptance.

2. The following documents must be submitted to OAA before the program can be sent on the SAC, the BOR, and NWCCU as necessary. These documents will not be reviewed by the academic boards. Forms and templates for these submittals are obtained from OAA.
   a. Four-Year Course Offering Plan for the Program.
   b. A budget worksheet.
   c. Board of Regents Program Action Request Form
   d. Board of Regents Prospectus and Executive Summary forms (www.alaska.edu/bor/policy-regulations/) which addresses all requirements and policies approved by the Statewide Academic Council (SAC) (http://www.alaska.edu/research/sac/) and the Board of Regents.
   e. Resource Implication Form and a signed Fee Request Form (if needed).
   f. An student learning outcomes assessment plan Academic Assessment Plan for review by the Academic Assessment Committee.
   g. A risk management plan where required. This is developed in conjunction with the program’s Dean/Director, the Director of Risk Management, and legal counsel as needed.

3. In addition to the above documents, the following must be submitted to the Governance Office. These documents will be reviewed by GAB for all new doctoral program proposals (aygov@uaa.alaska.edu):
   a. A cover memo summarizing the proposal.
   b. The full proposal document outlined in section 3.8
   c. Signed PAR (www.uaa.alaska.edu/governance/coordination/index.cfm).
      Note: The Governance Office will accept electronic signed PARs as long as all signatures up to the Dean/Director level are present and legible and the approved or disapproved boxes are checked.
   d. Complete catalog copy in Word using the track changes function, including student learning outcomes for the program or a web address linked to the student learning outcomes. A Word
7.5 Academic Program Suspension of Admissions

There are a variety of reasons why program faculty and academic deans/campus directors consider suspending admissions to an academic program. These may include, among others, temporary circumstances (e.g., insufficient faculty to meet substantial enrollment increases), planned major revisions to the program (e.g., deleting a track or changing the degree level), or potential program deletion (discussed in greater detail in the next section).

The following steps should be followed when suspending admissions to a program:

1. **Program Suspension**: Academic dean/campus director submits a memo to the provost requesting suspension of admission. Requests for suspension should indicate the implementation date, reason for the suspension, planned duration, impact on currently enrolled students and plans to advise and accommodate them during the suspension in accordance with each student’s catalog year, and identification of impact on other UAA programs or departments. By the conclusion of the fifth year of suspension, the academic dean or campus director must request, in consultation with program faculty, to reinstate admission, extend the suspension, or initiate the deletion process.

2. **Internal Notification**: Program suspensions should be communicated to faculty and administrators within the MAU according to the following guidelines.
   a. For programs offered on a community campus, the applicable academic dean or campus director (as determined by the UAA Catalog chapter in which the program is published) should be notified prior to the suspension of the program. For programs offered on multiple campuses, each applicable dean or campus director should be notified prior to suspension of the program.
   b. Faculty should be notified of program suspensions through an email to the faculty curriculum coordination listserv (uaa-faculty@lists.uaa.alaska.edu) and through inclusion as an information item on the Undergraduate Academic Board (for undergraduate programs) or Graduate Academic Board (for graduate programs) agenda.

3. **UA System and Accreditation Notification**: Following the approval of program suspension by the provost, Academic Affairs will notify the Statewide Academic Council (SAC) and Northwest Commission on Colleges and Universities (NWCCU). Program suspensions require notification to these bodies, not approval.

4. **Administrative Protocols**: The following are non-curricular considerations for program suspension.
   a. The provost has final approval authority for program suspensions. Once approved by the provost, the request is forwarded to the registrar to formally suspend admissions. The chancellor is notified of the action before notification goes to SAC and the NWCCU.
   b. Personnel implications will be addressed in accordance with applicable collective bargaining agreements and personnel policies and regulations. Program funds will be assigned to other department, college, or institutional priorities through established processes.
7.6  Academic Program Deletion

Program deletions may be initiated for a number of reasons. These may include, among others, low enrollment, few graduates, or changing job markets. After a period of suspension, and in conjunction with evidence collected from within and outside the institution, a decision can be made to modify, eliminate, or supersede the existing program with one more relevant. Considerations should include the impact on students currently enrolled in the program, on directly related employment sectors, and on other related departments within the university.

1. **Program Suspension:** Following the process described in the Program Suspension Policy, the academic dean/campus director submits a memo to the provost requesting suspension of admissions into the program, to ensure that no new students are admitted into the program until the final determination is made. Requests for suspension should indicate the implementation date, reason for the suspension, planned duration, and identification of impact on other UAA programs or departments. By the conclusion of the fifth year of suspension, the academic dean or campus director must request, in consultation with program faculty, to reinstate admission, extend the suspension, or initiate the deletion process.
   a. For programs offered on a community campus, the applicable academic dean or campus director (as determined by the UAA Catalog chapter in which the program is published) should be notified prior to the suspension of the program. For programs offered on multiple campuses, each applicable dean or campus director should be notified prior to suspension of the program.

2. **Consultation with Academic Affairs:** To initiate the program deletion process, consultation with OAA must occur. This consultation will include a discussion of the process and an overview of the templates required for program deletion. *OAA may waive or modify this requirement where appropriate, such as a program which has been suspended for more than five years with no currently enrolled majors.*
   a. The process will address the rationale for the proposed deletion, the demand for the program, the impact and implications on academic departments in UAA and other Major Academic Units (MAUs), impact on external stakeholders, the financial status of the program, and potential options to resolve the concerns which led to the proposed deletion.
   b. If the decision is to delete the program, programs must accommodate all currently admitted students with a completion plan that meets each student’s catalog deadlines and requirements. This completion plan should outline the timeframe and priorities for resources to accommodate completion of students impacted by the proposed program deletion.
   c. Proposals to delete programs offered on multiple campuses or through collaborative arrangements between two or more academic units should be coordinated with the academic deans and campus directors of the relevant program as is appropriate to their situations.

3. **Development of Proposal to Delete or Modify Program:** This proposal should be developed using the established curriculum approval process. If the department decides to modify the existing program, or to supersede it with a new program, the curriculum is developed as a program change so that deletion of the existing program and initiation of its replacement are approved simultaneously.

The following documents must be submitted to the Governance Office. These documents will be reviewed by the appropriate academic board for all program deletion proposals (uaa_gov@uaa.alaska.edu):

   a. A cover memo summarizing the proposal. A cover memo template can be found on the Governance curriculum website (www.uaa.alaska.edu/governance/coordination/index.cfm).
   b. Signed PAR (www.uaa.alaska.edu/governance/coordination/index.cfm).

   *Note: The Governance Office will accept electronic signed PARs as long as all signatures up to the Dean/Director level are present and legible and the approved or disapproved boxes are checked.*

Departments are also required to send an email to uaa-faculty@lists.uaa.alaska.edu explaining the program deletion. The email must include contact information, as well as:
• School and department (PAR boxes 1a and 1b),
• Complete Program Title (PAR box 2),
• Type of Program (PAR box 3),
• Type of Action (Add/Change/Delete) (PAR box 4),
• justification for action (PAR box 8),
• any other relevant information.

The email must be sent at least 10 working days before being presented at UAB/GAB.

4. **UA System and Accreditation Approval:** Following the internal curriculum approval process, Academic Affairs will work with program faculty to submit program deletions for approval by the Statewide Academic Council (SAC), Board of Regents, and Northwest Commission on Colleges and Universities (NWCCU).
   a. *Note: Authority to approve deletion of Occupational Endorsement Certificates and Workforce Credentials is delegated to the chancellor, and does not require action by SAC or the Board of Regents. These program deletions should be submitted to SAC for notification purposes and to the NWCCU for final approval.*

5. **Administrative Protocols:** The following are non-curricular considerations for program deletion.
   a. **Program Deletion from Banner:** When the program is deleted in Banner, students may no longer remain enrolled in the program, and the degree or certificate cannot be awarded. This administrative deletion will be postponed until there are no enrolled students in the major through graduation or expiration of admissions. Once approved by the NWCCU, the registrar will be notified to formally delete the program.
   b. **Personnel and Budget:** Personnel implications will be addressed in accordance with applicable collective bargaining agreements and personnel policies and regulations. Program funds will be assigned to other department, college, or institutional priorities through established processes.
   c. **Decisions Relative to Departments and Divisions:** This policy applies exclusively to academic programs. Decisions relative to departments and divisions will be managed within the college and institution through established processes.
Section 8 - Policy Additions and Changes

New or revised academic policies are proposed to the UAB/GAB. If approved they will be forwarded by the Governance Office to the UAA Faculty Senate, then to the OAA, and finally to the Chancellor’s Office.

UAA Proposals should include:

1. Proposed policy language (include catalog copy in Word using the track changes function if policy is revised).
2. Documents in which proposed language will be inserted (catalog, curriculum handbook, etc.).
3. Proposed implementation date.

Upon recommendation of the Provost, the Chancellor reviews and acts on academic policies.
Section 9 - Step-By-Step Instructions for the Course Content Guide

When developing a new course the CCG should be developed first. Considerations are: level, title, goals and student learning outcomes, content, and bibliography. This information is then transferred to the CAR. The Course Content Guide should provide a concise description of the course. Topical areas, instructional goals and student learning outcomes should be clearly related to each other. It is recommended that the CCG contain five or fewer pages. While there is not a standard template for the CCG, current CARs and CCGs can be found at http://curric.uaa.alaska.edu/curric/courses/.

It is also recommended that the faculty initiator consult with the school/college curriculum committee.

The CCG for new courses and course changes must include the following which will be transferred to the CAR:

1. **The date on which the Course Content Guide was initiated or revised**

2. **Information directly also on the CAR**
   
   **A. College or School** – Choose from the following the school or college initiating action:
   - AA  Academic Affairs
   - AS  College of Arts and Sciences
   - CB  College of Business and Public Policy
   - CH  College of Health
   - CT  Community and Technical College
   - EA  College of Education
   - EN  School of Engineering
   - HC  University Honors College
   - KP  Kenai Peninsula College
   - KO  Kodiak College
   - MA  Matanuska-Susitna College

   **B. Course Prefix** – The prefix affected by the curriculum proposal. Approval of new prefixes must be obtained before the approval of related new/revised curriculum/program changes. See instruction on the PAR form regarding requesting a new prefix.

   **C. Course Number** (for a new course, contact the Office of the Registrar for a number)
   - **Reuse of Course Number Rule:** *When a permanent course number becomes inactive through deletion or purging, it will not be assigned to another course. However, a course can be reinstated using the same number.*

   **ii. Types of Courses**
   - **Academic Courses:** Courses with these numbers count toward undergraduate and graduate degrees and certificates as described. Each course includes a component for evaluation of student performance. Student effort is indicated by credit hours. One credit hour represents three hours of student work per week for a 15-week semester (e.g., one class-hour of lecture and two hours of study or three class-hours of laboratory) for a minimum of 750 minutes of total student engagement, which may include exam periods. Equivalencies to this standard may be approved by the chief academic officer of the university or community college. Academic credit courses are numbered as follows.

   The numbering sequence signifies increasing sophistication in a student’s ability to extract, summarize, evaluate and apply relevant class material. Students are expected to demonstrate learning skills commensurate with the appropriate course level, and to meet, prior to registration, prerequisites for all courses as listed with the course descriptions.
UAA and UA Course Level Descriptions (see also the UAA catalog, Chapter 7 and University Regulation R10.04.09):

- **Lower division courses usually taken by freshmen and sophomores**
  - A100-A199: Freshman-level, lower division courses.
  - A200-A299: Sophomore-level, lower division courses

- **Upper division courses usually taken by juniors and seniors**
  - A300-A399: Junior-level, upper division courses
  - A400-A499: Senior-level, upper division courses

- **Graduate-level courses**
  - A600-A699: Require a background in the discipline, and an ability to contribute to written and oral discourse on advanced topics in the field.

b. **Preparatory/Developmental Courses**
  - A050-A099: Preparatory/developmental courses with these numbers provide basic or supplemental preparation for introductory college courses. They are not applicable to transcripted certificates or associate, baccalaureate, or graduate degrees, even by petition.

c. **Noncredit Courses**
  - A001-A049: Noncredit courses are offered as career development, continuing education, or community interest instruction. Not applicable to any degree or certificate requirements (even by petition).

d. **Continuing Education Unit (CEU) courses**
  - AC001-AC049: CEU courses are awarded upon completion of a course of study that is intended for career development or personal enrichment. CEU courses may not be used in degree or certificate programs or be converted to academic credit.

e. **Professional Development Courses**
  - A500-A599: Courses with these numbers are designed to provide continuing education for professionals at a post-baccalaureate level. These courses are not applicable to university degree or certificate program requirements, are not interchangeable with credit courses, even by petition, and may not be stacked with any other course.

**NOTE:** All permanent numbered courses (A050-A499 and A600-A699) are included in the UAA catalog. If a discipline/department/school/college/community campus does not want a permanent numbered course to be included in the UAA catalog, that exclusion will need UAB/GAB recommendation and approval of the Vice Provost for Undergraduate Academic Affairs (for undergraduate courses) or the Vice Provost for Research and Graduate Studies (for graduate courses).

iii. **Course Numbers: Second and Third Digits** – The second and third digits of course numbers in the -90 range are used for specific course types.

- **-90 Selected topics:** A generic “umbrella” course category identifying a defined field or subject area within a discipline. Topics can change from semester to semester within that field or subject area.

- **-92 Seminar or Workshops:**
  - **Seminar:** Specifically designed for student participation in exchanging ideas and academic experiences around a central core of subject matter.
  - **Workshop:** A formal higher education offering with intensive instruction and
information in a given field.

- **93 Special topics**: Offered only once to meet short-term needs and are not intended to become part of the permanent catalog.

- **94 Trial** (experimental): Trial indicates that the faculty wish to offer the course before making the course permanent. May be offered up to three times as a -94 course. Coordination with the faculty listserv (uaa_faculty@lists.uaa.alaska.edu) for 094, 194, 294, 394, and 494 courses must occur at least 10 working days before submittal to the Governance Office.

- **95 Internship and Practicum**
  - **Internship**: A student work experience in which the employer or agency is the student’s immediate supervisor, is active in planning the expected student learning outcomes, and is involved in the evaluation of the student’s achievements.
  - **Practicum**: A student work experience for which the academic department established the objectives and student learning outcomes.

- **97 Independent study**: Address topics or problems chosen by the student with appropriate approval. Topics must not duplicate and must differ significantly from catalog courses.

- **98 Individual research**: Consist of individual research by the student, directly supervised by a faculty member or faculty committee.

- **99 Thesis**: Involve writing and/or completion of a thesis by the student.

**D. Number of Credits/CEUs and Contact Hours** – Include the number of semester credits or CEUs for the course. If variable, indicate the minimum and maximum, e.g. 1-3 credits or CEUs. The number of credits/CEUs is in direct relation to the contact hours. If the course is noncredit, enter the appropriate range of contact hours.

- Over a 15-week semester, 1 contact hour is equivalent to 50 minutes.
- One credit for a lecture course is typically equivalent to 1 contact hour/week for a total of 15 contact hours for the course (or 750 minutes of actual class time [50 minutes/contact hour x 15 contact hours = 750 minutes]).
- One credit for a supervised laboratory course is typically awarded 2 contact hours/week for a total of 30 hours (2 x 15 weeks = 30) or 1,500 total contact minutes (30 x 50 minutes/contact hour = 1,500 minutes) of supervised lab time.
- One credit of unsupervised laboratory time such as some practica, student teaching, internships, or field work credits is typically awarded 3 contact hours/week or more. Many courses, because of the nature of their subject matter or mode of delivery, require additional student time.
- For a lecture course, at least two hours of work outside the class is expected for each credit. For a supervised laboratory class, in addition to 2 contact hours/week in the laboratory, at least one additional hour of outside work is expected for each credit (or a total of 3 contact hours/week in the laboratory will satisfy this requirement).
- For courses that are provided in a period less than the standard 15-week semester, the (Lecture + Lab) section should be completed as if the course would be taught in a 15-week period. Additional description should be provided in Box 19 ("Justification for Action") of the CAR and in the CCG to explain the actual course length and required hours per week. For noncredit CEU courses, the total number of lecture and laboratory contact hours for the course should be stated.
i. **Summary**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester</td>
<td>= 15 weeks (standard semester length)</td>
</tr>
<tr>
<td>One (1) Contact Hour</td>
<td>= 50 minutes per week (or 750 minutes for the course)</td>
</tr>
<tr>
<td>Outside Work</td>
<td>= Additional time typically outside of classroom or laboratory</td>
</tr>
<tr>
<td>One (1) credit</td>
<td>= 1 contact hour per week of lecture (15 contact hours of lecture for course)</td>
</tr>
<tr>
<td></td>
<td>or 2 contact hours per week of supervised laboratory (or practica) if outside work is needed (30 contact hours for the course)</td>
</tr>
<tr>
<td></td>
<td>or 3 contact hours per week of supervised laboratory (or practica) if no outside work is needed (45 contact hours for the course)</td>
</tr>
</tbody>
</table>

\[(\text{Lecture + Laboratory}) = \text{refers to the number of contact hours for lecture and laboratory per week based on a 15-week semester}\]

ii. **Examples**

- **(3+0)** = A typical lecture-only course. Equivalent to a 3-credit course with 3 contact hours of lecture and 0 hours of laboratory per week for a total of 135 hours for the course [45 contact lecture hours (3 contact lecture hours/week x 15 weeks = 45) plus 90 hours outside work (6 hours outside lecture/week x 15 weeks = 90) for a total of 135 hours].

- **(2+2)** = A combined lecture and laboratory course. Equivalent to a 3-credit course with 2 contact hours of lecture and 2 hours of supervised laboratory per week for a total of 135 hours for the course (30 contact hours of lecture and 60 hours outside lecture plus 30 hours lab plus 15 hours outside lab).

- **(3+2)** = A combined lecture and laboratory course. Equivalent to a 4-credit course with 3 contact hours of lecture and 2 hours of supervised laboratory per week for a total of 180 hours for the course (45 contact hours of lecture and 90 hours outside lecture plus 30 hours of lab and 15 hours outside of lab).

- **(3+3)** = A combined lecture and laboratory course. Equivalent to a 4-credit course with 3 contact hours of lecture and 3 hours of laboratory (supervised or unsupervised) per week for a total of 180 hours for the course (45 contact hours of lecture and 90 hours outside lecture plus 45 hours of lab and 0 hours outside of lab).

- **(0+9)** = A practicum or field work type course. Equivalent to a 3-credit course with 0 contact hours of lecture and 9 hours of practicum or field work laboratory (supervised or unsupervised) per week for a total of 135 hours for the course (0 contact hours of lecture plus 135 hours of lab and 0 hours outside of lab).

iii. **CEU** – The CEU is a unit of measure for noncredit activities. The CEU can be used to document an individual’s participation in formal classes, courses, and programs as well as in nontraditional modes of noncredit education, including various forms of independent, informal, and experiential study and learning.
Examples:
0.1 CEU = 1 hour of instruction and no additional hours of work for the course.
1 CEU = 10 hours of instruction and no additional hours of work for course.
1.5 CEUs = 15 hours of instruction and no additional hours of work for course.
3.5 CEUs = 20 hours of instruction and 15 hours of required additional work appropriate to the objectives of the course for course.
2 CEUs = 20 hours of instruction and no additional work, or 40 hours of laboratory or clinical work.

iv. Minimum Course Length (Compressibility Policy) – The Compressibility Policy states, “Courses scheduled for less than a full semester may not be offered for more than one credit each week (seven days).” Two credits require a minimum of eight days and 3 credits require a minimum of 15 days.

E. Course Title – Insert full title of the course. Titles of existing courses in the data base cannot be used for new/revised courses, except for the following types of courses: dissertation, internship, practicum, project, research, selected topic, seminar, thesis.

F. Grading Basis – Identifies how performance in the course is to be graded (A-F or P/NP [pass/no pass] for academic and professional development courses; NG [no grade] for CEUs and noncredit offerings).

G. Implementation Date – Insert the semester and year that the addition, deletion or change will be implemented. See section 10.2, Box 11, for further clarification regarding implantation dates.

- Careful consideration needs to be given to permanent courses affecting degrees and certificates.
- Course additions or modifications must be made in conjunction with publication of the class schedule/listing. Since academic units are responsible for providing an adequate transition for students from one set of program requirements to another, units should consider the official implementation date of program changes when implementing the approved changes.

H. Cross Listing (if applicable) – Cross-listed courses are courses approved under multiple prefixes and offered at the same time and location.

i. Cross-listed courses are courses approved under multiple prefixes and offered at the same time and location.
ii. Each cross-listed course must have a separate CCG and CAR for each prefix.
iii. Everything except the course prefix must be identical.
iv. Each department is responsible for preparing and providing the appropriate CCG, CAR, supporting documentation. These must be submitted at the same time for UAB/GAB review.
v. When courses are cross-listed, they must be offered and printed in UAA’s schedules and catalog under each prefix. For example, JPC/JUST A413 is listed both in Justice and in Journalism and Public Communications. Cross-listed classes must be offered at the same time in a semester. Each department is responsible for the scheduling and schedule maintenance of their prefix’s section, including additions, changes and deletions.

I. Stacking (if applicable)

i. Stacked courses are courses from the same prefix but at different levels offered at the same time and location.
ii. Existing and new courses may not be stacked unless approved as stacked courses by UAB/GAB.

iii. Courses may not be stacked informally for scheduling purposes.

iv. The course description and course content guide of a stacked course must clearly articulate the difference in experience, performance and evaluation of students at different levels, including graduate students vs. undergraduate students.

v. Courses that are at the 500 level may not be stacked with any other course.

vi. If stacking status is requested, rationale must be provided.

vii. Courses at the 300 level may not be stacked with 600-level courses.

All graduate-level courses must meet certain criteria established by the GAB. In addition, when 400-level courses are stacked with 600-level courses, the faculty initiator must consider the impact of stacking the course on the graduate student experience and how that affects the criteria for 600-level courses. If a graduate-level course is stacked with a 400-level course, or if undergraduate students are taking the course as part of their baccalaureate degree, the justification must clearly describe how the quality of the graduate students’ experience will be maintained in a mixed-level classroom.

The following guidelines may assist in determining whether a course is suitable for stacking according to graduate criteria:

i. **Do the prerequisites (not registration restrictions) differ for the 400- vs. 600-level versions of the course?**
   It is difficult to justify stacked courses in which the graduates and undergraduates have a significantly different knowledge base relevant to the course material. If the knowledge is required for the course, the prerequisites must be comparable. If the knowledge is only required for extra coursework performed by the graduate students, this difference should be stated explicitly and addressed in the instructional goals, student learning outcomes and course activities sections of the CCG.

ii. **Is the course format predominantly discussion- or seminar-based?**
   This type of course is not likely to be suitable for stacking, as the discussion level/theoretical base can differ significantly between graduate and undergraduate students. In addition, the ratio between undergraduate and graduate students should be addressed. Courses that are evenly divided may provide a more balanced environment than a course in which only one or two graduate students are present.

iii. **Is the course format predominantly lecture-based? (Is the main intent of the course to provide a detailed knowledge set?)**
   a. **Is the PRIMARY source of information/reading the primary research literature of the field?**
      This course is not likely to be suitable for stacking, as undergraduate students generally lack the knowledge base and experience to derive all information from the primary literature.

   b. **Is the PRIMARY source of information/reading material derived from textbooks or other less-specialized literature?**
      This course is likely to be suitable for stacking. However, the performance expectations for graduate students should be explicitly defined, with special emphasis on how these expectations differ from the 400-level students.
Some suggested student learning outcomes/assessments that may be appropriate for 600-level students in a stacked course:

i. Extra reading assignments based in the primary research literature, evaluated via written critical reviews and/or oral presentations

ii. Extra writing assignments that evince ability to synthesize research fields (comprehensive scholarly reviews or synthesis of other disciplinary areas with the course material)

iii. Assignments to measure the ability of graduate students to integrate course material into experimental design, such as writing formal research grant proposals, or oral or written presentation of how the course material informs the student’s own thesis research

iv. Separate exams for graduate students that measure not only comprehension of the lecture material but the ability to integrate and apply the material at more advanced levels, such as hypothesis formulation and experimental design, or the ability to interpret raw research data

v. Teaching experiences, in which graduate students instruct undergraduates, lead discussion groups or present analysis of primary research, offer another context in which graduate students may demonstrate and more advanced knowledge and be assessed accordingly.

As a result of completing this course, students will be able to:

<table>
<thead>
<tr>
<th>Student Learning Outcomes</th>
<th>Typical Assessments</th>
</tr>
</thead>
<tbody>
<tr>
<td>demonstrate the ability to conduct a literature search on the course topic material</td>
<td>written critical reviews and/or oral presentation of literature reviews</td>
</tr>
<tr>
<td>Synthesize research fields</td>
<td>comprehensive scholarly reviews or synthesis of other disciplinary areas with the course material produced by the student</td>
</tr>
<tr>
<td>Integrate course material into experimental design</td>
<td>Written formal research grant proposals, oral or written presentation of how the course material informs the student’s own thesis research</td>
</tr>
<tr>
<td>Integrate and apply the course material at advanced levels</td>
<td>Exams requiring students to formulate hypothesis, design experiments, or interpret raw research data</td>
</tr>
<tr>
<td>Instruct undergraduates, lead discussion groups, or otherwise present the course material to other audiences.</td>
<td>Observed teaching exercises, teaching evaluations, performance of their students on examinations</td>
</tr>
</tbody>
</table>

J. Course Description – Identifies the intent of the course. For courses, a 20- to 50-word description is preferred.

Special Notes are also identified in this field. Special notes indicate certain requirements of the student or the course that are not identified in the course description (e.g., “May be repeated for credit with a change in subtitle,” or “Offered Spring Semesters”).

K. Course Attributes (GER if applicable)

L. Course Prerequisite(s)/Test Score(s), Corequisite(s), Registration Restriction(s) – Identifies requirements which must be achieved prior to enrolling in a course. It is assumed that faculty may waive any of the requirements. All prerequisite, corequisite; registration restriction, etc indicated on the CAR will be automatically enforced through Banner.
i. **Course Prerequisite** – Identifies a course (by prefix and number) which must be successfully completed (D or better is understood, unless C or better is stated) prior to taking the course.

   A course prerequisite which **may** be taken concurrently must also be included in this area (this differs from a co-requisite which **must** be taken concurrently).

   **Test Scores** – Identifies test scores which must be successfully achieved prior to taking the course. This may include UAA approved placement tests, SAT, ACT, or others. Specific test scores are not required.

ii. **Corequisites** – Identifies a course which **must** be taken concurrently and requires simultaneous enrollment and withdrawal.

iii. **Other Restrictions** – Identifies additional requirements that a student must have satisfied prior to registering for the course (e.g. instructor permission, college or school admission\(^a\), major\(^b\), class standing\(^c\), or level\(^d\)). Must be enforced by the program/department/ instructor.

   - College or school admission – identifies a college/school to which a student must be admitted to in order to enroll in the course.
   - Major – identifies a major which a student must have declared in order to enroll in the course
   - Class – identifies a class standing which a student must have attained in order to enroll in the course (0-29 credits = freshmen; 30-59 credits = sophomore; 60-89 = junior, 90+ = senior).
   - Level – identifies a level which a student must be at in order to enroll in the course (graduate or undergraduate).

   Responsibility for confirming prerequisites and registration restrictions lies with the department. It is assumed that the faculty may waive or enforce any of these requirements, subject to program, department and college policy.

M. **Course Fee**: Yes or No – Indicates that there are student fees associated with the course.

   **Note**: The sections of the CAR referenced above and the CCG must match word for word.

3. **Course level justification** – Provide a justification for the level to which the course has been assigned.

   **Course Level Expectations for Academic Course Levels** – In general, advances in course level (lower, upper, and graduate) correlate with sophistication of academic work. It should be noted that some students find introductory courses more demanding than advanced, specialized courses. In such courses, a more comprehensive approach and the first exposure to new ways of thinking may be harder for some individuals than covering a smaller, more familiar area in much greater detail.

   The following definitions describe the expectations for the academic course levels:

   **A. Lower Division Courses**

   - **A100-A199**: Introduce a field of knowledge and/or develop basic skills. These are usually foundation or survey courses.

   - **A200-A299**: Provide more depth than 100-level courses and/or build upon 100-level courses. These courses may connect foundation or survey courses with advanced work in a given field, require previous college experiences, or develop advanced skills.

   **B. Upper Division Courses**
Require a background in the discipline recognized through course prerequisites, junior/senior standing or competency requirements. These courses demand well-developed writing skills, research capabilities and/or mastery of tools and methods of the discipline.

A300-A399: Build upon previous course work and require familiarity with the concepts, methods, and vocabulary of the discipline.

A400-A499: Require the ability to analyze, synthesize, compare and contrast, research, create, innovate, develop, elaborate, transform, and/or apply course materials to solving complex problems. These courses are generally supported by a substantial body of lower-level courses.

C. Graduate-Level Courses

A600-A699 – Require a background in the discipline, and an ability to contribute to written and oral discourse on advanced topics in the field at a level beyond that required by a bachelor’s degree. Require the ability to read, interpret and evaluate primary literature in the field. Students analyze raw data, evaluate models used in research and draw independent conclusions. Preparation includes demonstrated accomplishment in a specific course or discipline, or completion of a significant and related program of studies. Student activities are often self-directed and aimed not only at the formation of supportable conclusions, but also at a clear understanding of the process used in those formations.

For graduate-level coursework the justification must:

i. Address descriptors of 600-699 courses from Chapter 7 of the UAA catalog.

ii. Specify registration restrictions, e.g. “Admission to **** degree/certificate program” or “Graduate Status” where appropriate.

iii. State the disciplinary background.

iv. Specify prerequisites, e.g. “Graduate Status.”

v. Describe how the course provides students with opportunities for independent critical thinking.

vi. Describe how the course enables students to meet the following goals when they are appropriate to the field:
   a. Competence in a specialized field of knowledge
   b. Extensive experience with specialized client relationships
   c. Application of expert knowledge within a recognized professional practice
   d. Analysis and synthesis of primary scholarship or research
   e. Self-directed written research projects
   f. Mastery of theoretical knowledge

Course Level Expectations for Preparatory/Developmental Course Levels – The following definitions describe the expectations for the preparatory/developmental course levels (courses not applicable to transcripted certificates or associates, baccalaureate or graduate degrees):

A050-A099: Provide supplemental preparation for introductory college courses.

4. Instructional Goals and Student Learning Outcomes

A. Instructional Goals: Identifies what the instructor intends to accomplish in the course. Instructional goals should describe in broad terms what the instructor expects the student to learn from the course.
B. **Student Learning Outcomes:** Identifies what the student should know and/or be able to do as a result of completing the course. Student learning outcomes must be specific, measurable, achievable, relevant and timely. Student evaluation methods must assess the accomplishment of the students in each outcome.

C. **Goals and Student Learning Outcomes:** Should be clearly related to the appropriate course level. See course level definitions below and in the discussion of CAR Box 3 in section 5 of this handbook. The verbs listed in Appendix C are gathered into categories designed to assist in the description of student outcomes.

5. **Guidelines for Evaluation or Assessment Methods**

A. **Program Student Learning Outcomes** and their assessments are treated in detail in the program’s Academic Assessment Plan. This plan is evaluated for new and modified programs.

B. Student learning outcomes for courses are included in the CCG along with the means used to assess them. A tabular representation of student learning outcomes and typical assessment methods is preferred by GAB. UAB currently accepts tabular or bulleted versions. See examples below.

C. Identify typical evaluation methods appropriate to the level and type of course for determining how well the goals and student learning outcomes have been met. The level of detail given here should be sufficient to give instructors guidance concerning the nature and rigor of the evaluation techniques expected without unduly restricting teaching methods.

*Note: All academic programs at UAA are assessed. Student learning outcomes for courses should be compatible with Program Student Learning Outcomes and should be assessed in similar ways. For more detailed information about assessment, see Appendix E. For specific information about your program’s assessment procedures, see the college assessment coordinator.*

### Example 1

<table>
<thead>
<tr>
<th>Student Learning Outcomes and Assessment Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student Learning Outcomes</strong></td>
</tr>
<tr>
<td>Students demonstrate the ability to distinguish between facts and opinions and determine the extent to which the facts provided support the arguments being made.</td>
</tr>
<tr>
<td>Students demonstrate the ability to troubleshoot and repair a microprocessor based instrument system according to manufacturers standards</td>
</tr>
<tr>
<td>Students demonstrate skill in the use of various media in the artistic expression of human emotion</td>
</tr>
<tr>
<td>Students demonstrate the ability to design an electro-mechanical system to accomplish a control function defined by the instructor, in accordance with applicable standards and codes.</td>
</tr>
</tbody>
</table>

### Example 2

**Institutional Goals:**

This course is designed to fulfill the needs of general education requirements and to provide a foundation in general chemistry specifically for health science majors. It is intended to be a survey of general and organic chemistry with significant emphasis on health-related material. The periodic table, atomic and molecular structure, bonding, and chemical reactions, skills in measurements, balancing chemical equations and problem solving are emphasized.

The instructor will:

1. Present models of the periodic table, atomic and molecular structure, chemical bonding and reactions for development of observational skills and conceptual foundations in chemistry.
2. Present questions to initiate discussion, help students differentiate, link and integrate ideas and develop their own concepts, to articulate their thinking and explain models and solutions.

3. Provide multiple human health-related contexts for applying concepts and invite students to defend and verify their models and their solutions to problems.

**Student Learning Outcomes:**
After completing this course, the student will be able to:

1. Recognize and interpret chemical models of the periodic table, atomic and molecular structure, bonding and chemical reactions.

2. Apply science methodology with emphasis on exploring and verifying measurements and chemical equations in health-related problems rather than memorizing facts and answering “algorithmic” questions.

3. Demonstrate effective, efficient communication skills for discussing, chemistry concepts across multiple human-health related contexts including historical discoveries and technological advances.

**Assessment Measures:**
Various assessment tools can be used at the instructor’s discretion, including: quizzes, in-class presentations, short reports, take-home exams, creative work, homework, and a comprehensive standardized exam.

6. **Topical course outline (not a syllabus)** – List the topics covered each time the course is taught (additional topics may be covered in the course). Topical areas, instructional goals and student learning outcomes should be clearly related to each other.

   For selected topics courses, provide a topical outline (not a syllabus) of a sample course and a discussion on the range of topics to be presented and the expected depth of the typical presentation.

7. **Suggested text(s)** – Provide current suggested texts or recommended readings in alphabetical order.

   Similar texts are expected to be used in the actual course. Texts should be current (published within the last ten years) unless they are classics in the discipline.

8. **Bibliography** – Provide a list of the literature, in alphabetical order, that forms a foundation for the ideas and/or skills to be taught in the course. The concise and selective bibliography indicates texts, papers and other resources that the students and the instructor will find particularly valuable in meeting the course student learning outcomes.

   Suggested texts and bibliography should be presented in an acceptable style (e.g. APA, MLA, or Gregg). Be prepared to identify the style used.
Section 10 - Step-By-Step Instructions for the Course Action Request

Please visit the course search website (http://www.curric.uaa.alaska.edu/course_search.cfm) for assistance in filling out your Curriculum Action Request (CAR) form. This searchable website provides box-by-box information for active courses that can be easily transferred to the boxes on the CAR form.

10.1 The CAR Form
10.2 Instructions for Completing the CAR

Box 1a. School or College
Choose from the drop-down menu the school or college initiating action.
AA Academic Affairs
AS College of Arts and Sciences
CB College of Business and Public Policy
CH College of Health
CT Community and Technical College
EA College of Education
EN School of Engineering
HC University Honors College
KP Kenai Peninsula College
KO Kodiak College
MA Matanuska-Susitna College

Box 1b. Division
Using the drop-down box, insert the division initiating action. Note: Changing the name of a division or academic department requires Provost approval and memorandum to Governance as an informational item.

College of Arts and Sciences
AFAR Division of Performing and Fine Arts
AHUM Division of Humanities
AMSC Division of Mathematical and Natural Sciences
ASSC Division of Social Sciences

College of Business and Public Policy
ADBP Division of Business Programs
ADEP Division of Economics and Public Policy

Community and Technical College
AAVI Division of Aviation Technology
ABCT Division of Computer Networking and Office Technologies
ACAH Division of Culinary Arts and Hospitality
ACDT Division of Construction and Design Technology
ADCE Division of Community Education
ADTP Division of Transportation and Power
ADVE Division of Career and Technical Education
APER Division of Physical Education and Recreation
APRS Division of Preparatory Studies

College of Education
No Division Code

School of Engineering
No Division Code

College of Health
AHLS Division of Health and Safety
ADHS Division of Human Services and Health Sciences
ADSN Division of Nursing
AJUS Division of Justice
ASWK Division of Social Work
Box 1c. Department

Insert department initiating action. Note: Changing the name of a division or academic department requires Provost approval and a memorandum to Governance as an informational item.

Box 2. Course Prefix

Insert the course prefix affected by the curriculum proposal. Approval of new course prefixes must be obtained before the approval of related new/revised curriculum/program changes. See instruction on the PAR form regarding requesting a new prefix in Section 11.

Box 3. Course Number

Insert the course number. If a new number is indicated, then check with the Curriculum Specialist in the Office of the Registrar (aypublications@uaa.alaska.edu).

Reuse of Course Number Rule: When a permanent course number becomes inactive through deletion or purging, it will not be assigned to another course. However, a course can be reinstated using the same number.

1. Types of Courses

   A. Academic Credit Courses

   Courses numbered A100-A499 and A600-A699 count toward undergraduate and graduate degrees and certificates. Each course includes a component for evaluation of student performance. Student effort is indicated by credit hours. One credit hour represents three hours of student work per week for a 15-week semester (e.g., one class-hour of lecture and two hours of study or three class-hours of laboratory) for a minimum of 750 minutes of total student engagement, which may include exam periods. Equivalencies to this standard may be approved by the chief academic officer of the university or community college. Academic credit courses are numbered as follows.

   The numbering sequence signifies increasing sophistication in a student’s ability to extract, summarize, evaluate and apply relevant class material. Students are expected to demonstrate learning skills commensurate with the appropriate course level, and to meet, prior to registration, prerequisites for all courses as listed with the course descriptions.

   UAA and UA course level descriptions (see also the UAA catalog, Chapter 7 and University Regulation R10.04.09):

   i. Lower division courses usually taken by freshmen and sophomores

      A100-A199: Freshman-level, lower division courses.
      A200-A299: Sophomore-level, lower division courses

   ii. Upper division courses usually taken by juniors and seniors

      A300-A399: Junior-level, upper division courses
      A400-A499: Senior-level, upper division courses

   iii. Graduate-level courses

      A600-A699 – require a background in the discipline, and an ability to contribute to written and oral discourse on advanced topics in the field.

   B. Preparatory/Developmental Courses

   Courses with these numbers (A050-A099) provide basic or supplemental preparation for introductory college courses. They are not applicable to transcripted certificates or associate, baccalaureate, or graduate degrees, even by petition.
C. **Noncredit Courses**

**A001-A049:** Noncredit courses are offered as career development, continuing education, or community interest instruction. Not applicable to any degree or certificate requirements (even by petition).

D. **Continuing Education Unit (CEU) courses**

**AC001-AC049:** CEU courses are awarded upon completion of a course of study that is intended for career development or personal enrichment. CEU courses may not be used in degree or certificate programs or be converted to academic credit.

E. **Professional Development Courses**

**A500-A599:** Courses with these numbers are designed to provide continuing education for professionals at a post-baccalaureate level. These courses are not applicable to university degree or certificate program requirements, are not interchangeable with credit courses, even by petition, and may not be stacked with any other course.

**NOTE:** All permanent numbered courses (A050-A499 and A600-A699) are included in the UAA catalog. If a discipline/department/school/college/community campus does not want a permanent numbered course to be included in the UAA catalog, that exclusion will need UAB/GAB recommendation and approval of the Vice Provost for Undergraduate Academic Affairs (for undergraduate courses) or Vice Provost for Research and Graduate Studies (for graduate courses).

1. **Course Numbers: Second and Third Digits**

The second and third digits of course numbers in the -90 range are used for specific course types.

- **-90 Selected topics:** These are a generic “umbrella” course category identifying a defined field or subject area within a discipline. These courses allow departments to offer new topics in a discipline as demand warrants, and to keep the curriculum up to date. Subject matter of selected topics courses within a discipline is chosen to provide instruction not covered by regular catalog offerings. May be offered as a seminar, lecture, laboratory or workshop. There is no limit to the number of times a selected topic subtitle may be offered.

- **-92 Seminar or Workshops**

  **Seminar:** Specifically designed for student participation in exchanging ideas and academic experiences around a central core of subject matter.

  **Workshop:** A formal higher education offering with intensive instruction and information in a given field.

- **-93 Special topics:** Offered only once to meet short-term needs and are not intended to become part of the permanent catalog.

- **-94 Trial (experimental):** Trial indicates that the faculty wish to offer the course before making the course permanent. May be offered up to three times as a -94 course.

- **-95 Internship and Practicum**

  **Internship:** A student work experience in which the employer or agency is the student’s immediate supervisor, is active in planning the expected student learning outcomes, and is involved in the evaluation of the student’s achievements.

  **Practicum:** A student work experience for which the academic department established the objectives and student learning outcomes.

- **-97 Independent study:** Address topics or problems chosen by the student with appropriate approval. Topics must not duplicate and must differ significantly from catalog courses.
-98 **Individual research:** Consist of individual research by the student, directly supervised by a faculty member or faculty committee.

-99 **Thesis:** Involve writing and/or completion of a thesis by the student.

**Box 4. Previous Course Prefix & Number**
Indicate if the course was offered previously under a different prefix and/or number, including -93s or -94s, and what that number was. If the course was not offered previously, insert “N/A.” or if the prefix and the number has not changed, insert “N/A.”

Reinstatement of a course
When an inactive course is being reinstated with the same course prefix and number, place the word *Reinstate* in box 4. In box 8, Type of Action, select *change*.

**Box 5a. Credits/CEUs**
Insert the number of semester credits or CEUs for the course. If variable, indicate the minimum and maximum, e.g. 1-3 credits or CEUs. The number of credits/CEUs is in direct relation to the contact hours. If the course is noncredit, enter the appropriate range of contact hours.

**Box 5b. Contact Hours (Lecture + Lab) per week (15-week semester)**
Insert the number of lecture and laboratory (or practicum) hours each week for the course that is offered over a 15-week semester. One contact hour is equivalent to 50 minutes.

One credit for a lecture course is typically equivalent to 1 contact hour/week for a total of 15 contact hours for the course [or 750 minutes of actual class time (50 minutes/contact hour x 15 contact hours = 750 minutes)].

One credit for a supervised laboratory course is typically awarded 2 contact hours/week for a total of 30 hours (2 x 15 weeks = 30) or 1,500 total contact minutes (30 x 50 minutes/contact hour = 1500 minutes) of supervised lab time.

One credit of unsupervised laboratory time such as some practica, student teaching, internships, or field work credits, is typically awarded 3 contact hours/week or more. Many courses, because of the nature of their subject matter or mode of delivery, require additional student time.

For a lecture course, at least two hours of work outside the class is expected for each credit. For a supervised laboratory class, in addition to 2 contact hours/week in the laboratory, at least one additional hour of outside work is expected for each credit (or a total 3 contact hours/week in the laboratory will satisfy this requirement).

For courses that are provided in a period less than the standard 15-week semester, the (Lecture + Lab) section should be completed as if the course would be taught in a 15-week period. Additional description should be provided in Box 19 ("Justification for Action ") of the CAR and in the CCG to explain the actual course length and required hours per week. For noncredit CEU courses, the total number of lecture and laboratory contact hours for the course should be stated.

1. **Summary**
   
   Semester = 15 weeks (standard semester length)
   
   One (1) Contact Hour = 50 minutes per week (or 750 minutes for the course)
   
   Outside Work = Additional time typically outside of classroom or laboratory
   
   One (1) credit = 1 contact hour per week of lecture (15 contact hours of lecture for course)
   
   or
   
   2 contact hours per week of supervised laboratory (or practica) if
outside work is needed (30 contact hours for the course) or
3 contact hours per week of supervised laboratory (or practica) if no outside work is needed (45 contact hours for the course)

(Lecture + Laboratory) = refers to the number of contact hours for lecture and laboratory per week based on a 15-week semester

2. Examples

- \((3+0)\) = A typical lecture-only course. Equivalent to a 3-credit course with 3 contact hours of lecture and 0 hours of laboratory per week for a total of 135 hours for the course [45 contact lecture hours (3 contact lecture hours/week x 15 weeks = 45) plus 90 hours outside work (6 hours outside lecture/week x 15 weeks = 90) for a total of 135 hours].

- \((2+2)\) = A combined lecture and laboratory course. Equivalent to a 3-credit course with 2 contact hours of lecture and 2 hours of supervised laboratory per week for a total of 135 hours for the course (30 contact hours of lecture and 60 hours outside lecture plus 30 hours lab plus 15 hours outside lab).

- \((3+2)\) = A combined lecture and laboratory course. Equivalent to a 4-credit course with 3 contact hours of lecture and 2 hours of supervised laboratory per week for a total of 180 hours for the course (45 contact hours of lecture and 90 hours outside lecture plus 30 hours of lab and 15 hours outside of lab).

- \((3+3)\) = A combined lecture and laboratory course. Equivalent to a 4-credit course with 3 contact hours of lecture and 3 hours of laboratory (supervised or unsupervised) per week for a total of 180 hours for the course (45 contact hours of lecture and 90 hours outside lecture plus 45 hours of lab and 0 hours outside of lab).

- \((0+9)\) = A practicum or field work type course. Equivalent to a 3-credit course with 0 contact hours of lecture and 9 hours of practicum or field work laboratory (supervised or unsupervised) per week for a total of 135 hours for the course (0 contact hours of lecture plus 135 hours of lab and 0 hours outside of lab).

3. The CEU

The CEU is a unit of measure for noncredit activities. The CEU can be used to document an individual’s participation in formal classes, courses, and programs as well as in nontraditional modes of noncredit education, including various forms of independent, informal, and experiential study and learning.

Examples:

- 0.1 CEU = 1 hour of instruction and no additional hours of work for the course
- 1 CEU = 10 hours of instruction and no additional hours of work for course
- 1.5 CEUs = 15 hours of instruction and no additional hours of work for course
- 3.5 CEUs = 20 hours of instruction and 15 hours of required additional work appropriate to the objectives of the course for course
- 2 CEUs = 20 hours of instruction and no additional work, or 40 hours of laboratory or clinical work

4. Minimum Course Length (Compressibility Policy)

The Compressibility Policy states: “Courses scheduled for less than a full semester may not be offered for more than 1 credit each week (seven days).” Two credits require a minimum of eight days and 3 credits require a minimum of 15 days.

Box 6. Complete Course Title

Insert full title of the course/program. If the title of the course is greater than 30 characters (including spaces), insert a title of 30 characters or less (including spaces) in the field underneath the full title. This abbreviated title will
appear on transcripts. Abbreviations used should be readily recognizable or accepted abbreviations within the
discipline. Titles of existing courses in the data base cannot be used for new/revised courses, except for the
following types of courses: dissertation, internship, practicum, project, research, selected topic, seminar, thesis.

Box 7. Type of Course
Identifies type of course offered.

1. Academic Courses (numbered 100-499 and 600-699)
   A. Program Requirement - A credit course specifically required by degree, certificate, or a Minor
      program.
   B. Program Selective - A credit course within a group of courses from which a student is required to
      select.
   C. General Education Requirement - A credit course that is approved to fulfill part of the general
      education distribution requirements of the University.
   D. Elective - A credit course selected by the student that is neither a degree program requirement nor a
      program selective, but which is applicable towards the minimum number of credits required for
      the degree or certificate.

2. Preparatory/Developmental Courses (050-099): Preparatory/Developmental courses with these numbers
   provide basic or supplemental preparation for introductory college courses. They are not applicable to
   transcripted certificates or associate, baccalaureate, or graduate degrees, even by petition. (See Box 3.
   Course Number, for further information).

3. Nondegree Courses
   A. Noncredit Courses (000-049) - These are noncredit and nondegree courses, programs, and/or
      activities that respond to relevant community education needs and interests and that typically do
      not have specifically defined student learning outcomes.
   B. CEUs (denoted by “AC” rather than just “A” before course number) - A course that provides further
      development of a trade, profession, or personal improvement.
   C. Professional Development Courses (A500-A599) - Designed to provide continuing education for
      professionals at the post-baccalaureate level. These courses are not applicable to university degree
      or certificate program requirements, are not interchangeable with credit courses, even by petition,
      and may not be stacked with any other course. (See Box 3. Course Number, above for further
      information).

Box 8. Type of Action
Identifies whether the CAR is for a course addition, change, or deletion. If the action is a course change, identify all
the changes being made.

If the course change results in a program change, a separate PAR must be completed for each action and must
identify the element(s) being changed.

If a permanent number is being requested after the course has run successfully as a -93 or -94, this is an addition, not
a change, since the addition of a permanent course is being proposed.

Box 9. Repeat Status
Identifies the Repeat Status of the course.

- Yes means the course may be repeated for credit
- No means it cannot be repeated for credit

If repeat status is marked as Yes, the Number of Repeats and Maximum Hours must be indicated.
The Number of Repeats indicates the number of additional times the course may be taken for credit (does not include the original enrollment). The Maximum Hours indicates the total number of credits that may be applied towards a degree.

**Example**

HIST A390  3 credits  
Repeat Status: Yes  Number of Repeats: 1  Max Credits: 6

**Box 10. Grading Basis**

Identifies how performance in the course is to be graded (A-F or P/NP [Pass/No Pass] for academic and professional development courses; NG [no grade] for CEUs and noncredit offerings).

**Box 11. Implementation Date**

Using the drop-down menus, insert the semester and year that the addition, deletion, or change will be implemented.

1. Courses

   The end semester is needed for nonpermanent courses only (-93s, -94s, bridge courses). For permanent courses, leave the semester field blank and 9999 for the end year. Careful consideration needs to be given to permanent courses affecting degrees and certificates. New programs and courses may be added for any term; however changes to existing programs can only have a fall implementation date. Careful consideration needs to be given to ensure final approval can be made prior to printing of catalog. For this reason it is suggested that changes to programs be ready for first reading no later than first week of March.

   Course additions or modifications must be made in conjunction with publication of the class schedule. Since academic units are responsible for providing an adequate transition for students from one set of program requirements to another, units should consider the official implementation date of program changes when implementing the approved changes. The current production calendar can be found on the Governance website at [www.uaa.alaska.edu/governance](http://www.uaa.alaska.edu/governance). New course offerings have greater flexibility but implementation dates for course changes will not be allowed for a term in which registration has already begun. When a course change is required as part of a program change for fall semester, first readings for the course should take place no later than the first week in February. This is to ensure final approval prior to fall registration opening.

2. Program or Academic Policy

   The overall principles affecting the date for implementation of academic policy or program change include the following:

   A. *Students must receive adequate notice of a program change.*
   
   B. *Staff must have adequate time to implement the change effectively.*

   Generally this is interpreted to mean that program changes, including new programs, must be advertised in the university catalog.

   Based on the current schedule of catalog distribution in the spring or summer, most program changes should take effect in the fall semester following catalog distribution. Exception to this policy will be made only in exceptional circumstances. Permission of the OAA is required for implementation at an earlier date. Requests for an earlier date must detail the procedures the academic unit will use to notify affected students and facilitate the transition to the new requirements.

**Box 12. Cross-Listed or Stacked**

1. Cross-listed
A. Cross-listed courses are courses approved under multiple prefixes and offered at the same time and location.

B. Each cross-listed course must have a separate CAR for each prefix.

C. Everything except the course prefix must be identical.

D. The department chair of the coordinating department must signify approval of the cross-listing by signing Box 12 of the CAR.

E. Each department is responsible for preparing the appropriate CAR and providing supporting documentation. These must be submitted at the same time for UAB/GAB review.

F. When courses are cross-listed, they must be offered and printed in UAA’s schedules and catalog under each prefix. For example, ART/JPC A324 is listed both under Art and Journalism and Public Communications.

2. Stacked

A. Stacked courses are courses from the same prefix but at different levels offered at the same time and location.

B. Existing and new courses may not be stacked unless approved as stacked courses by UAB/GAB.

C. Courses may not be stacked informally for scheduling purposes.

D. The course description and course content guide of a stacked course must clearly articulate the difference in experience, performance, and evaluation of students at different levels, including graduate students vs. undergraduate students.

E. Courses at the 300 level may not be stacked with 600-level courses.

F. A500-A599 level (professional development) courses may not be stacked with any other course.

G. If stacking status is requested, rationale must be provided.

If the graduate-level course is stacked with a 400-level course, or if undergraduate students are taking the course as part of their baccalaureate degree, the justification must clearly describe how the quality of the graduate students’ experience will be maintained in a mixed-level classroom. (See Section 9 for guidance on the CCG.)

Box 13a. Impacted Courses or Programs

Do NOT complete Box 13a for new courses.

The intent of Box 13a is twofold:

1. To provide a list of all courses, programs, college requirements, and catalog copy that contain reference to the course under revision in the current UAA catalog. This includes the initiating department.

2. To document coordination* with impacted programs and departments.

If the course revision impacts the program catalog copy of the initiating department, a Program/Prefix Action Request must be completed and submitted with track-changed catalog copy.

The current catalog copy in Word is available on the Governance website (www.uaa.alaska.edu/governance).

In order to find courses and programs impacted by this revision, use the .pdf file provided on the Office of the Registrar’s website (http://uaa.alaska.edu/records/catalogs/catalogs.cfm). Open the link to the latest catalog and use the find function in Adobe to search for the course prefix and number. You should fill out a line of the table for every program, (including type of degree, e.g. AA, AAS, BA, BS, MA, MS, Certificate), course, or college requirement that the revised course appears in.
Three or fewer lines (impacts) can be recorded directly into the table on the CAR. **More than three requires the creation of a separate coordination spreadsheet** is required listing the impacted programs or courses, the specific impact (e.g. program requirement, program selective**, credits required, prerequisite, corequisite, registration restriction), type and date of coordination, and the name of the department chair/coordinator contacted. An example of the Box13a. spreadsheet can be found on the Governance website at [http://uaa.alaska.edu/governance/coordination/index.cfm](http://uaa.alaska.edu/governance/coordination/index.cfm).

**Courtesy Coordination**

Sometimes coordination with a department or program must occur even though there is no impact in the catalog. The department initiating the proposal is responsible for coordinating with each impacted program chair/coordinator, even if the impact is not found in the catalog. The term *courtesy coordination* can be used to document this type of situation.

**Items that are NOT entered into Box 13a.**

- You do not have to list impacts to classes that the revised class is stacked or cross listed with if you have already completed Box 12.

* Coordination is the requirement that all faculty initiators of curriculum actions identify and notify all academic units that may be affected by the curriculum change of the precise nature of their proposal. Coordination is always expected between and among affected department chairs/coordinators and deans in Anchorage, as well as directors of community campuses.

**program selective** - A credit course within a group of courses from which a student is required to select.

**Example of Box 13a (Coordination and Courtesy Coordination)**

CIS A330 (Database Management Systems)

<table>
<thead>
<tr>
<th>Impacted Program/Course</th>
<th>Date of Coordination</th>
<th>Chair/Coordinator Contacted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Logistics and Supply Chain Management, BBA</td>
<td>3/25/2011</td>
<td>Philip Price</td>
</tr>
<tr>
<td>CIS A360</td>
<td>3/25/2011</td>
<td>Minnie Yen</td>
</tr>
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<td>CIS A410</td>
<td>3/25/2011</td>
<td>Minnie Yen</td>
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<tr>
<td>CIS A430</td>
<td>3/25/2011</td>
<td>Minnie Yen</td>
</tr>
<tr>
<td>Computer Science BA, BS</td>
<td>3/25/2011</td>
<td>Sam Thiru</td>
</tr>
</tbody>
</table>

*Do not* send proposals as attachments when sending email notices to the faculty listserv since large files can cause difficulty with email delivery.
Box 13b. **Coordination Email Submitted to Faculty Listserv**
Enter the date of the email send to the faculty listserv ([uaa-faculty@lists.uaa.alaska.edu](mailto:uaa-faculty@lists.uaa.alaska.edu)). Initiating faculty are required to send an email notification to faculty listserv giving a brief overview of the proposal including:

- School and department (CAR boxes 1a and 1c),
- course prefix (CAR box 2),
- course number (CAR box 3),
- course title (CAR box 6),
- Add/Change/Delete and if change, a summary list of changes (CAR box 8),
- course description (CAR box 15),
- justification for action (CAR box 19),
- any other relevant information.

Do not send proposals as attachments when sending email notices to the faculty listserv since large files can cause problems. The coordination email must be sent at least 10 working days before being presented at UAB/GAB.

Box 13c. **Coordination with Library Liaison**
The faculty initiator is required to send the CAR and CCG to the library liaison for that department ([http://consortiumlibrary.org/find/subject_liason_librarians](http://consortiumlibrary.org/find/subject_liason_librarians)), with a copy of the email sent to the Governance Office.

Box 14. **GERs**
Identifies whether the course is a GER and which type of GER it is. The department initiating the proposal is responsible for submitting supporting documentation for the change, addition, or deletion.

Box 15. **Course Description**
Identifies the intent of the course. For courses, a 20- to 50-word description is preferred.

Special Notes are also identified in this field. Special notes indicate certain requirements of the student or the course that are not identified in the course description (e.g. “May be repeated for credit with a change in subtitle,” or “Offered Spring Semesters”).

A program proposal must include new catalog copy with a copy of the old catalog copy if applicable. For program proposals type “see attached catalog copy” in the box.

Box 16a. **Course Prerequisite(s)**
Identifies prerequisites which must be achieved prior to enrolling in a course. The prerequisite course (listed with prefix and number in alpha-numerical order) must be successfully completed prior to taking the course. Course prerequisites should be grouped using parenthesis and brackets similar to how you would group mathematical expressions. See the examples below.

Unless a minimum grade is specified for a prerequisite class, any grade value (including I, F, and W) will mark the class as satisfying the prerequisite if prerequisite checking has been turned on. For instance, if a student withdrew from a class and received a W, that student would be identified by Banner as having fulfilled any prerequisite requirement for the class they withdrew from. It is always assumed that faculty may waive the prerequisite or the minimum grade requirement.
A course prerequisite which may be taken concurrently must also be included in this box using the additional language “or concurrent enrollment.” This differs from a corequisite which should be placed in Box 16c. See the section on Box 16c for detailed information about corequisites.

Any additional information that appears as text should be placed in Box 16e (Other Restrictions).

Prerequisite examples:

ECON A429 (Business Forecasting)  
{CIS A110, BA A273, and [BA A377 or ECON A321]} with minimum grade of C

EDFN A303 (Foundations of Teaching and Learning)  
[EDFN A301 or concurrent enrollment] and [EDSE A212 or PSY A245]

EE A324 (Electromagnetics II)  
[EE A314 or PHYS A314] and MATH A302

ENGL A311 (Advanced Composition)  
[ENGL A211 or ENGL A212 or ENGL A213 or ENGL A214] with minimum grade of C

FIRE A214 (Fire Protection Systems)  
FIRE A101 and FIRE A105 and FIRE A121 and [MATH A105 or MATH A107 or MATH A108 or MATH A109 or MATH A172 or MATH A200 or MATH A201 or MATH A272]

SWK A342 (Human Behavior in the Social Environment)  
PSY A150 and [BIOL A102 or BIOL A111 or BIOL A112 or BIOL A115 or BIOL A116 or LSIS A102 or LSIS A201]

Note: Automatic prerequisite checking is available when a Prerequisites Form is submitted. This form is not part of the curriculum process, but is submitted directly to the Registrar’s Office. It is available via www.uaa.alaska.edu/records/faculty_resources/upload/Prerequisites_Form.pdf

Test Scores:
Identify test scores which must be successfully achieved prior to taking the course. This may include UAA Approved Placement Tests, SAT, ACT, or others. Specifically test scores are not required. It is assumed that faculty may waive the requirement.

Courses wishing to implement placement test scores as part of pre-requisite checking should indicate “or appropriate placement score.” There should also be an attached memo for each CAR indicating what the appropriate placement score is. If a change occurs to the cut score, the department will need to submit a memo to the Office of the Registrar and the Governance Office which would outline the new cut scores and list specifically which courses are impacted.

Box 16b. Corequisite(s)
Identifies a course (must be listed with prefix and number) which must be taken concurrently; requires simultaneous enrollment and withdrawal. It is assumed that faculty may waive the requirement.

Example for NURS A180  
Corequisite: NURS A125 and NURS A125L

Note: If the department has an alternative corequisite or a list of options for corequisites, do not include “or” in this box; do not include text information in this box. That information should be placed in box 16e (Other Restrictions).
Box 16c. **Other Restriction(s)**
Identifies additional requirements that a student must have satisfied prior to registering for the course (e.g., college or school admission\(^a\), major\(^b\), class standing\(^c\), or level\(^d\)). The name of the college or school, major, class standing, or level required should be specified in Box 16d. When these boxes are checked, Banner will automatically enforce the restrictions. It is assumed that faculty may waive the requirement.

\(^a\) College or school admission – identifies a college/school to which a student must be admitted in order to enroll in the course.

\(^b\) Major – identifies a major which a student must have declared in order to enroll in the course.

\(^c\) Class – identifies a class standing which a student must have attained in order to enroll in the course (0-29 credits = freshmen; 30-59 credits = sophomore; 60-89 = junior, 90+ = senior).

\(^d\) Level – identifies a level which a student must be at in order to enroll in the course (graduate or undergraduate). Checking the level box in 16d is mandatory for all graduate level 600 courses.

Box 16d. **Registration Restriction(s)**
Identifies additional requirements that a student must have satisfied prior to registering for the course (e.g. instructor permission, departmental permission). Must be enforced by the program/department/instructor. It is assumed that faculty may waive the requirement.

**NOTE:** Responsibility for confirming prerequisites, test scores, co-requisites, registration restrictions, and other restrictions lies with the department. It is assumed that the faculty may waive or enforce any of these requirements, subject to program, department and college policy.

Box 17. **Mark if Course Has Fees**
Indicates whether there is a student fee associated with the course. Do not include fee amount on CAR. This information is published under the course description in the catalog as “Special Fees,” and in the schedule with specific amounts. If the only action requested is a change in fees, no CAR is required.

New fees, changes in course fees, and deletions of course fees must be submitted on the Fee Request Form (www.uaa.alaska.edu/governance/coordination/index.cfm) and need the approval of the Provost. Refer to the Board of Regents Policy and Regulation Part V Chapter X for course fee information www.alaska.edu/bor/policy-regulations/.

Box 18. **Mark if Course is a Selected Topic Course**
Check box to indicate that course is a selected topic course; that the subtitle or topic of the course changes. Most selected topics courses are repeatable with a change in subtitle, and this box will help ensure that scheduling is done properly, and that student transcripts will show subtitle changes ensuring repeat credit is received.

Box 19. **Justification for Action**
For an existing course, justification needs to be provided for each proposed change as indicated in Box 8. Each proposed change must be noted, e.g. updates to CCG, Goals and Student Learning Outcomes, etc. For a new course, justification needs to be provided such as student or community interest or how the proposed course or change strengthens existing offerings. The supporting data must be supplied if the course is required for certification or accreditation.
## Section 11 - Step-By-Step Instructions for the Program/Prefix Action Request (PAR)

### 11.1 The PAR Form

Program/PREFIX Action Request  
University of Alaska Anchorage  
Proposal to Initiate, Add, Change, or Delete a Program of Study or Prefix

1a. School or College  
   choose one  

1b. Department

2. Complete Program Title/PREFIX

3. Type of Program  
   Choose one from the appropriate drop down menu: Undergraduate: or Graduate:

   CHOOSE ONE  CHOOSE ONE

   This program is a Gainful Employment Program:  
   □ Yes  □ No

4. Type of Action:  
   □ PROGRAM  □ PREFIX

   □ Add  □ Add
   □ Change  □ Change
   □ Delete  □ Inactivate

5. Implementation Date (semester/year)  
   From: /  To: /

6a. Coordination with Affected Units  
   Department, School, or College:  
   Faculty Initiator Name (typed):  
   Faculty Initiator Signed Initials:  
   Date:

6b. Coordination Email submitted to Faculty Listserv (uaa-faculty@lists.uaa.alaska.edu)  
   Date:

6c. Coordination with Library Liaison  
   Date:

7. Title and Program Description - Please attach the following:  
   □ Cover Memo  □ Catalog Copy in Word using the track changes function

8. Justification for Action

<table>
<thead>
<tr>
<th>Initiator (faculty only)</th>
<th>Date</th>
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<tbody>
<tr>
<td>Initiator (TYPE NAME)</td>
<td>Date</td>
</tr>
<tr>
<td>Approved</td>
<td>Date</td>
</tr>
<tr>
<td>Disapproved</td>
<td>Date</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dean/Director of School/College</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Date</td>
</tr>
<tr>
<td>Disapproved</td>
<td>Date</td>
</tr>
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</table>

<table>
<thead>
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<th>Department Chair</th>
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</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
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<td>Date</td>
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<table>
<thead>
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<tr>
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<td>Date</td>
</tr>
<tr>
<td>Disapproved</td>
<td>Date</td>
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<table>
<thead>
<tr>
<th>Board Chair</th>
<th>Date</th>
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<tbody>
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<td>Date</td>
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</table>

<table>
<thead>
<tr>
<th>Provost or Designee</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved</td>
<td>Date</td>
</tr>
<tr>
<td>Disapproved</td>
<td>Date</td>
</tr>
</tbody>
</table>
11.2 Instructions for Completing the PAR

Box 1a. School/College
Using the drop-down box, insert school or college initiating action.
AA  Academic Affairs
AS  College of Arts and Sciences
CB  College of Business and Public Policy
CH  College of Health
CT  Community and Technical College
EA  College of Education
EN  School of Engineering
HC  University Honors College
KP  Kenai Peninsula College
KO  Kodiak College
MA  Matanuska-Susitna College

Box 1b. Department
Insert department initiating action. Note: Changing the name of a division or academic department requires Provost approval and a PAR notifying Governance.

Box 2. Complete Program Title/Prefix
Insert full title of the proposed program or prefix.

Box 3. Type of Program
Insert Type of Program proposed. The maximum number of credits required by a degree program, per Board of Regents Policy (BOR Policy and Regulation 10.04.030), are noted below:

- Occupational Endorsement Certificate
- Undergraduate Certificate
- Associates (AA/AAS)
- Baccalaureate (BA/BS)
- Minor
- Post-Baccalaureate Certificate
- Graduate Certificate
- Graduate
- Doctoral
- Other

If the program is determined to be a Gainful Employment program, then check the “Yes” box; otherwise, check the “No” box. Meet with Associate Vice Chancellor for Enrollment Management to determine a program’s status. Additional documentation is required for programs which are identified as Gainful Employment programs.

Box 4. Type of Action
Check if the PAR is for an addition, deletion, or change to a program. Alternatively, the type of action may indicate a request for a new prefix, change to a prefix, or inactivation of a prefix.

Box 5. Implementation Date
Insert the semester and year that the addition, deletion, or change will be implemented.

The overall principles affecting the date for implementation of academic policy or program change include the following:

- Students must receive adequate notice or a program/prefix change.
- Staff must have adequate time to implement the change effectively.
Generally this is interpreted to mean that program/prefix changes, including new programs, must be advertised in the university catalog.

Based on the current schedule of catalog distribution in the spring or summer, most program changes should take effect in the fall semester following catalog distribution. Exception to this policy will be made only in exceptional circumstances. Permission of the OAA is required for implementation at an earlier date. Requests for an earlier date must detail the procedures the academic unit will use to notify affected students and facilitate the transition to the new requirements.

Box 6a. **Coordination with Affected Units**

Coordination is the requirement that all faculty initiators of program/prefix actions identify and notify all academic units who may be affected by the curriculum change of the precise nature of their proposal. Coordination is always expected between and among department chairs and deans in Anchorage, as well as directors of community campuses.

- **The purpose of coordination is to:**
  - A. Allow affected units who may have a legitimate interest in the program/prefix proposal, opportunities to review and comment on such proposals before they are considered by the college curriculum committees and the UAB/GAB.
  - B. Encourage collaboration among all academic units.
  - C. Maintain and improve quality of program offerings.

- An affected unit is defined as a department or academic unit whose curriculum will be affected by the proposed program action.

- **Coordination with affected units is required in the following cases:**
  - A. When the program, courses, or content proposed bridges material regularly included in other disciplines.
  - B. When the program includes or requires prerequisite courses from other degree programs, sites, or campuses.
  - C. When the proposed program can reasonably be expected to use courses offered by other disciplines.
  - D. When a subsequent allocation of resources resulting from the proposal will impact the unit’s ability to deliver academic courses required in other programs.

- **Coordination should be initiated very early in the program development process – before finalization of the proposal.**

- **Coordination includes:**
  - A. Sending proposal to department chairs of affected units
  - B. Actively seeking collaboration, comments and suggestions
  - C. Allowing 10 working days from the published date of notification of affected units before moving the proposal through the established levels of review.

- **Evidence of coordination with affected units is required by inclusion of a copy of the email sent to the UAA listserv and to the department chairs of affected units. If necessary, affected units should communicate directly with the initiating department. Affected academic units are then encouraged to submit written support or objection to UAB/GAB and/or to speak to the proposal at the appropriate Board meeting. If no written comments are received by the UAB/GAB within 10 working days of the notification date, it is assumed that there are no objections to the proposal.**
After coordination is complete, in Box 6a; type in the department, schools, or colleges coordinated with; type the faculty initiator’s name; write in the faculty initiator’s initials and the date.

**Box 6b. Coordination Email Submitted to Faculty Listserv**
Initiating faculty are required to send an email notification to faculty listserv at: uaa-faculty@lists.uaa.alaska.edu giving a brief overview of the proposal including:

- School and department (PAR boxes 1a and 1b),
- Complete Program Title (PAR box 2),
- Type of Program (PAR box 3),
- Type of Action (Add/Change/Delete) (PAR box 4),
- justification for action (PAR box 8),
- any other relevant information.

The email must be sent at least 10 working days before being presented at UAB/GAB.

Do not send proposals as attachments when sending email notices to the faculty listserv since large files can cause problems.

**Box 6c. Coordination with Library Liaison**
Coordination with the library liaison should occur early in the curriculum process. The faculty initiator is required to send the PAR to the library liaison for that department (http://consortiumlibrary.org/about/directory/liaisons.php), with a copy of the email sent to the Governance Office. Type in the date of coordination to indicate that the coordination has been done.

**Box 7. Title and Program Description**
Include a description of the intent of the program in the form of an attached cover memo. A program proposal must also include catalog copy with text changes and a clean copy of how the new catalog text will appear.

**Box 8. Justification for Action**
Insert the need for and/or reasoning behind the proposed action, such as student or community interest or how the proposal strengthens existing offerings.
Section 12 - Catalog Copy Formatting

The following outlines the requirements for formatting all program catalog copy submitted to UAB or GAB. Included are two sample program catalog copy sections. Refer to the UAA catalog (www.uaa.alaska.edu/records/catalogs/catalogs.cfm) for more examples.

Catalog copy from the published catalog can be found in Word format on the Governance site at www.uaa.alaska.edu/governance/.

Basic Format:
Department Name
Contact information, location, web address

1. General discipline information
   A. Degree or Certificate program name and description
   B. Overview and career information
   C. Student Learning Outcomes: Include Student Learning Outcomes for the program in the catalog copy.
   D. Honors: Header in the catalog should read: “Honors in Discipline”, e.g., Honors in English.
   E. Accreditation
   F. Research possibilities
   G. Gainful Employment statement (if needed)

2. Admission Requirements
   A. Preparation
   B. Pre-major
   C. Major

3. Advising

4. Academic Progress Requirements

5. Graduation Requirements
   A. General University
   B. General Education Requirements (GERs)
   C. College
   D. Major degree requirements
   E. Other graduation requirements

6. Faculty

Notes for creating and submitting catalog copy:

- You must use the Word formatted catalog copy available at www.uaa.alaska.edu/governance/.

- Courses must have their full titles and correct credit amounts and those must match what is currently in the catalog.

- Within a department or discipline, the order of undergraduate programs should be:
  1. Honors
  2. Occupational endorsement certificates
3. Undergraduate certificates
4. Associates degrees
5. Bachelor of Arts
6. Bachelor of Science
7. Minors

For graduate programs should be:
1. Graduate certificates
2. Masters degrees
3. Ph.D. programs

- Required credit amounts should be aligned to the right (see the following two examples). If a class has its credits aligned to the right it will be interpreted that this class is a requirement.

- Electives (or selectives) will have their credit amounts shown in parenthesis and will appear one space after the title of the course (see the following two examples). If a course has its credit amount in parenthesis after the title it will be interpreted as not required (i.e., a class a student can choose to take to fill a requirement).

- If, within a list of required classes, a student must take 3 credits, for example, but has a choice of two or more classes to fulfill that requirement, the required credit amount should be aligned to the right on the same line as the first elective. All of the electives should still have their credits in parentheses after the course title. Each course should be separated by a line on which an “or” appears (and nothing else). This is what it should look like:

  **Upper Division Biology (choose one of the following)**

  - BIOL A310 Principles of Physiology (3)
  - or
  - BIOL A415 Comparative Animal Physiology (4)
  - or
  - BIOL A461 Molecular Biology (3)
  - CHEM A105 General Chemistry I 3
  - CHEM A105L General Chemistry I Laboratory 1
  - CHEM A106 General Chemistry II 3
  - CHEM A106L General Chemistry II Laboratory 1
  - CHEM A253 Principles of Inorganic Chemistry 3

- The list of courses must appear in alphabetical order by prefix, and then in numerical order by course number.

- Faculty are listed in alphabetical order by instructor last name. Degrees or credential letters are not included (i.e., Ph.D., P.E., etc.). Faculty position title and email address are included.
EXAMPLE 1:

ELEMENTARY EDUCATION

Professional Studies Building (PSB), Room 224, (907) 786-4481
www.uaa.alaska.edu/coe

Bachelor of Arts, Elementary Education (with Teacher Certification)

Individuals interested in undergraduate elementary teacher preparation may obtain either a BA in Elementary Education or a Post-Baccalaureate Certificate in Elementary Education with elementary teacher certification. See Chapter 11, Post-Baccalaureate Certificate Programs, for more information.

The BA in Elementary Education is a professional degree nationally recognized by the Association of Childhood Education International (ACEI). Unique features of the program include an emphasis on culturally responsive teaching in Alaska’s context; a strong liberal studies focus; exposure to a range of teaching and curriculum design approaches, including integration of educational technology; and focused field experiences, developmentally sequenced and in a variety of school/classroom settings. Applicants are encouraged to take EDFN A101 Introduction to Education (3 credits) to learn more about the field of education. Elementary Education supports an Honors Track option. See an advisor for course guidance.

Student Learning Outcomes

Student learning outcomes for the program are based on the Standards for Alaska’s Teachers located at www.eed.state.ak.us/standards and the Association for Childhood Education International (ACEI) standards located at www.acei.org. Within a culturally responsive framework, program graduates will:

1. Construct learning opportunities that support K-6 students’ development, acquisition of knowledge, and motivation.
2. Design and implement curriculum that supports K-6 students’ learning of language arts, science, mathematics, social studies, the arts, health, and physical education.
3. Plan and implement instruction based on knowledge of K-6 students, learning, theory, curriculum, and community.
4. Create appropriate instructional opportunities to address diversity.
5. Use teaching strategies that encourage development of critical thinking and problem solving.
6. Foster active engagement in learning and create supportive learning environments.
7. Use effective communication strategies to foster inquiry and support interaction among K-6 students.
8. Use formal and informal assessments to inform and improve instructional practice.
9. Reflect on practice and engage in professional growth activities.
10. Establish positive collaborative relationships with families, colleagues, and the community.

Admission Requirements

Admission to the University of Alaska Anchorage: Elementary Education Major

Applicants must complete the Admission to Baccalaureate Programs Requirements in Chapter 7, Academic Standards and Regulations. Application forms are available at: www.uaa.alaska.edu/admissions.

Admission to the Department of Teaching and Learning, College of Education: Elementary Education Major

In order to be admitted to the Department of Teaching and Learning, students must:

1. Submit an application to the Department of Teaching and Learning.
2. Complete the Tier I Basic College-Level Skills General Education Requirements.
3. Have a cumulative GPA of 2.75.
4. Have a GPA of 3.00 in Major Requirements.

5. Successfully complete the Praxis I: Pre-Professional Skills Test (PPST). Contact the Department of Teaching and Learning for current passing scores.

6. Successfully complete the following courses with a grade of C or higher: EDEL A205 Becoming an Elementary Teacher and EDSE A212 Human Development and Learning.

7. Submit Interested Person Report.

   Note: Admission to the Department of Teaching and Learning is competitive. Qualified applicants are accepted on a space-available basis. Admission to the university as an Elementary Education major does not guarantee admission to the department.

Admission to Field Experiences

Admission to field experiences is separate from admission to the program and may be limited by community partners. See Field Placements located at the beginning of the College of Education section of this chapter. Applications for EDEL A495A, Elementary Education Practicum II, and Elementary Internship courses must be submitted by the semester before enrolling in EDEL A495A, Elementary Education Practicum II. Qualified applicants are accepted on a space-available basis. Admission to the Department of Teaching and Learning does not guarantee admission to the field experiences.

The Elementary Programs Admission Committee determines a candidate’s readiness to enroll in all field experiences. The candidate must realize that requirements set forth below constitute minimum preparation, and it may be the judgment of the committee that the candidate needs further work to develop content knowledge or skills to work with children.

EDEL A495A, Elementary Practicum II and Internship Admission Criteria

EDEL A495A, Elementary Education Practicum II, increases the time in the classroom and the planning and teaching experiences, with focus on the classroom environment, math and science. The Elementary Internship includes a capstone seminar and extensive, supervised teaching experiences in an elementary classroom. Emphasis is placed on meeting the Alaska Beginning Teacher Standards. Criteria include the following:

1. Meet all the requirements for and be admitted to the Department of Teaching and Learning as an Elementary Education major.
2. Submit an application form for admission to Internship, including a resume and letter of introduction, by the department’s published deadline.
3. Participate in a screening interview.
4. Complete all prerequisite courses.
5. Successfully complete the Praxis II: Elementary Content Knowledge (0014). Contact the Department of Teaching and Learning for current passing score.
6. Have a cumulative GPA of 2.75.
7. Have a GPA of 3.00 in Major Requirements.
8. Apply for the Student Teaching Authorization Certificate. This application includes fingerprinting and a criminal background check. Fee required. Contact COE advisors for more information.
Academic Progress

Satisfactory progress in the practicum courses (EDEL A395 and EDEL A495A) is required for enrollment in the internship (EDEL A495B). All Major Requirements, EDSE A212 and MATH A205 must be completed with a grade of C or higher in order to obtain an institutional recommendation for elementary teacher certification.

Graduation Requirements

Candidates must complete the following graduation requirements:

A. General University Requirements

Complete the General University Requirements for All Baccalaureate Degrees listed at the beginning of this chapter.

B. General Education Requirements

Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C Background Check Requirements

See Field Placements located at the beginning of the College of Education section of this chapter.

D. Liberal Studies Area

Complete the liberal studies area. These courses are selected to provide future elementary teachers with the skills and background knowledge in the various subjects they will be expected to teach. The selection is based on national and state standards for content preparation. Some of the liberal studies courses may also be used to meet General Education Requirements (GERs).

Sciences Core (15-24 credits)

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<tr>
<th>Course Code</th>
<th>Course Description</th>
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<tbody>
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<td>LSIS A102</td>
<td>Origins: Earth-Solar System-Life</td>
<td>5-8</td>
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<tr>
<td>GEOL A111</td>
<td>Physical Geology</td>
<td>4</td>
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<tr>
<td>ASTR A103</td>
<td>Solar System Astronomy</td>
<td>3</td>
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<tr>
<td>ASTR 103L</td>
<td>Solar System Astronomy Laboratory</td>
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</tr>
<tr>
<td>ASTR A104</td>
<td>Stars, Galaxies and Cosmology</td>
<td>3</td>
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<tr>
<td>ASTR A104L</td>
<td>Stars, Galaxies and Cosmology Laboratory</td>
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<td>LSIS A201</td>
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<td>BIOL A116</td>
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<tr>
<td>LSIS A202</td>
<td>Concepts and Processes: Natural Sciences</td>
<td>5-8</td>
</tr>
<tr>
<td>CHEM A103</td>
<td>Survey of Chemistry</td>
<td>3</td>
</tr>
</tbody>
</table>
CHEM A103L  Survey of Chemistry Laboratory (1)
and one of the following lecture/lab combinations:

PHYS A115  Physical Science (3)
and

PHYS A115L  Physical Science Laboratory (1)
or

PHYS A123  Basic Physics I (3)
and

PHYS A123L  Basic Physics I Laboratory (1)

Social Sciences (SS) and Humanities (HUM) Core (36-39 credits)

Students must meet GERs for Baccalaureate Degrees including 6 credits of social sciences (SS) from two different disciplines and 6 credits of humanities (HUM).

ANTH A250  The Rise of Civilization (3) 3

or

HIST A390A  Themes in World History (3)

HIST A131  History of United States I (3) 3

or

HIST A132  History of United States II (3)
or

HIST A355  Major Themes in US History (3)

EDSE A212  Human Development and Learning (3) 3

ENGL A121  Introduction to Literature (3) 3

or

ENGL A201  Masterpieces of World Literature I (3)
or

ENGL A202  Masterpieces of World Literature II (3)

HUM A211  Introduction to Humanities I (3) 3

or

HUM A212  Introduction to Humanities II (3)
or

HNRS A192  Honors Seminar: Enduring Books (3)

LSSS A111  Cultural Foundations of Human Behavior (3) 3

or

HNRS A292  Seminar in Social Science (3)
or

ANTH A202  Cultural Anthropology (3)

LSIC A231  Truth, Beauty, and Goodness (3) 3

or

PHIL A301  Ethics (3)

LSSS A311  People, Places, and Ecosystems (3)
or

ENVI A211  Environmental Science: Systems and Processes (3)

LSIC A331  Power, Authority, and Governance (3) 3

Double-check all course titles. They must exactly match the full titles published in the catalog course name.
SOC/PS A351  Political Sociology (3)
LSSS A312  Individuals, Groups, and Institutions (3) 3
or
PSY A111  General Psychology (3)
and
SOC A101  Introduction to Sociology(3)
or
SOC A375  Social Psychology (3)
or
PSY A375  Social Psychology (3)
or
LSIC A332  Science, Technology and Culture (3) 3

Select one course from fine arts GERs 3

Mathematical Skills (9-13 credits)
MATH A205  Communicating Mathematical Ideas and 3
and
STAT A252  Elementary Statistics (3) 3-4
or
STAT A253  Applied Statistics for the Sciences (4)
and
Select one additional course from quantitative skills GERs 3-6

Oral and Written Communication Skills (9 credits)
Select one course from oral communication GERs 3
Select two courses from written communication GERs 6

E.  Major Requirements
It is recommended that students complete EDFN A101 Introduction to Education prior to enrolling in the following major courses. It is strongly recommended that you see an advisor to stay on track. Field experiences in public schools are required as part of most courses.

1. Complete the following core courses (22 credits)
   EDEC A242  Family and Community Partnerships (3) 3
   or
   HNRS A310  Community Service: Theory and Practice (3)
   EDEL A205  Becoming an Elementary Teacher 2
   EDFN A206  Introduction to Assessment in Education 1
   EDFN A300  Philosophical and Social Context of American Education (3) 3
   or
   EDFN A304  Comparative Education (3)
   EDFN A301  Foundations of Literacy and Language Development 3
   EDFN A302  Foundations of Educational Technology 2
   EDEL A392  Elementary Education Seminar I: Culturally Responsive Teaching 2
2. Complete the following methods courses (18 credits)

EDEC A106 Creativity and the Arts in Early Childhood 3
EDEL A325 Teaching Literacy in Elementary Schools 6
EDEL A327 Teaching Social Studies in Elementary Schools 2
EDEL A426 Teaching Mathematics in Elementary Schools 3
EDEL A428 Teaching Science in Elementary Schools 2
PEP A345 Incorporating Health and Physical Activity into the Pre-K-6 Classroom 2

**Concurrent enrollment in multiple courses is required. See an advisor for details.**

3. Complete the following field experiences and internship (16-19 credits)

EDEL A395 Elementary Education Practicum I: Literacy and Social Studies 2
EDEL A492A Elementary Education Seminar II: Learning Environment 2
EDEL A492B Elementary Education Seminar III: Teaching Capstone 3
EDEL A495A Elementary Education Practicum II: Learning Environment, Mathematics, Science 3
EDEL A495B Elementary Education Internship 6-9 or
For Honors Option Senior Requirement:
HRNS A499 Thesis (3) and
EDEL A495B Elementary Education Internship (6)

4. A total of 125-141 credits is required for the degree, of which 42 credits must be upper division.

**BAEL and Honors College Option**

Take the following Honors College Core Program Courses (16 credits)

HNRS A192 Honors Seminar: Enduring Books 3
HNRS A292 Honors Seminar in Social Science 3
HNRS A310 Community Service: Theory and Practice 3
HNRS A392 Honors Thesis Seminar 1
HNRS A499 Honors Thesis 3
and taken concurrently with EDEL A495B Internship (6) 3

(three credits of Internship apply to the Senior Requirement)

*Important: See an advisor if considering the Honors Option.*
Institutional Recommendation,

Elementary Teacher Certification (K-6)

Following are the requirements for an institutional recommendation:

1. Major requirements completed with a grade of C or higher.
2. Cumulative GPA of 2.75.
3. Cumulative GPA of 3.00 in all Major Requirements, EDSE A212 and MATH A205.
4. Passing scores on the Praxis I (PPST) and Praxis II (0014) exams.
5. Internship satisfactorily completed.
6. BA in Elementary Education degree conferred.

EXAMPLE 2:

ARCTIC ENGINEERING

Engineering Building (ENGR), Room 201, (907) 786-1900
http://www.uaa.alaska.edu/schoolofengineering/programs/arctic/

The Arctic Engineering program is designed to provide graduate education for engineers who must deal with the unique challenge of design, construction and operations in the cold regions of the world. The special problems created by the climactic, geological and logistical conditions of the Arctic and sub-Arctic require knowledge and techniques not usually covered in the normal engineering courses. Development of petroleum and other natural resources has accentuated the demand for engineers trained in northern operations, both from private industries involved in development and government agencies planning or regulating these activities. Of primary importance is a thorough knowledge of heat transfer processes and properties of frozen ground and frozen water, which are basic to most engineering activities in the Arctic. The areas of hydraulics, hydrology, materials and utility operations are also uniquely affected by Arctic considerations.

Master of Science, Arctic Engineering

The Master of Science of Arctic Engineering requires completion of a set of core courses that will prepare an engineer to understand and adapt prior engineering knowledge and skills to problems of cold regions. The program also allows students to study advanced elective courses in a particular area of specialized interest. Research activities carried out by faculty of the UAA School of Engineering provide opportunities for project reports dealing with current Arctic knowledge. A graduate advisory committee of at least three members is appointed to guide each admitted student to degree completion. Two members must be UAA Engineering faculty members.

Student Learning Outcomes

On successful completion of the program, students will have gained sufficient knowledge to:

1. Recognize natural conditions and engineering challenges that are unique to cold regions;
2. Interpret associated specialized language and units of measure;
3. Locate, interpret, and apply public information about the physical conditions of cold regions;
4. Apply fundamental physical principles for solutions to common cold regions engineering problems;
5. Assess need for complex specialized Arctic engineering solutions;
6. Determine physical and thermal properties, evaluate frost heave rates, and estimate heat flow in soils, prevent foundation failure due to seasonally or perennially frozen ground by appropriate project site exploration and design of constructed features;

7. Determine mathematical and physical properties governing heat and mass transfer in cold climates;

8. Determine temperature profiles in structure walls, roofs, and foundations, predict moisture content and mass flow rates in structures;

9. Acquire, integrate, and interpret data from public archives regarding site conditions associated with planning and design of community utility systems and formulate field measurement programs to determine site conditions for planning and design;

10. Analyze properties of lake, river, and sea ice, predict behavior of ice under natural conditions, and predict ice forces on engineering structures; and

11. Apply the sum of specialized Arctic engineering knowledge and skills gained in the program toward solution of a practical engineering problem and report this to fellow specialists.

**Admission Requirements**

All students admitted to the Arctic Engineering program must have previously earned a baccalaureate degree in an engineering discipline with a cumulative undergraduate GPA of at least 3.00. Probationary admission may be granted by the Civil Engineering Department for students whose cumulative undergraduate GPA is between 2.50 and 3.00, but who have successfully completed graduate studies at the 3.00 level or better and have other evidence of their potential for success in graduate engineering studies. Probationary terms will typically call for successful completion of a pre-approved sequence of 9 credits of graduate engineering courses. Admitted students are also responsible for completion of prerequisites for Arctic engineering program courses, which may not have been included in their undergraduate education.

**Graduation Requirements**

See the beginning of this chapter for University Requirements for Graduate Degrees.

**Major Requirements**

1. Candidates must complete the following core courses (9 credits):

- CE A603 Arctic Engineering* 3
- CE A681 Frozen Ground Engineering 3
- ME A685 Arctic Heat and Mass Transfer 3

*Students who have completed CE A403 Arctic Engineering with a grade of C or better, or students who have passed the ES AC030 Fundamentals of Arctic Engineering or ES AC031 Introduction to Arctic Engineering before being admitted to the program must replace CE A603 with an elective, 3-credit course accepted by the student’s graduate advisory committee.

2. Candidates must also complete at least three additional courses from the following Arctic engineering program elective courses (9 credits):

- CE A682 Ice Engineering (3)
- CE A683 Arctic Hydrology and Hydraulic Engineering (3)
- CE A684 Arctic Utility Distribution (3)
- CE A689 Cold Regions Pavement Design (3)

3. Candidates must complete additional graduate electives (9 credits) in mathematical, science or engineering subjects related to or supportive of the student’s program of study, as approved by the student’s advisory committee to fulfill the minimum 30-credit degree requirement. One technical undergraduate elective course at the 400 level may be applicable with prior permission of the student’s advisory committee and provided a grade of B or better is achieved. All coursework applied toward degree requirements must be approved by the student’s advisory committee.

4. Each student must complete the following course (3 credits) after approval of a project proposal by the student’s advisory committee:

- CE A686 Civil Engineering Project 3
The Arctic engineering project should have the following characteristics:

a. The Arctic engineering project must solve a practical engineering problem to the extent that original developments by the candidate are evident in the project report.

b. The project problem and solution must be presented in the context of the current state of the art by means of a thorough review of pertinent literature.

c. The project must include innovative components directly involving cold regions engineering.

d. The project must have sufficient scope to clearly demonstrate the candidate’s advanced technical expertise in cold regions engineering.

e. The project report must demonstrate command of knowledge and skills directly associated with the candidate’s graduate program of study.

f. The written project report, in the judgment of the candidate’s advisory committee, must be publishable in the proceedings of a cold regions engineering specialty conference.

g. The work must require a level of effort consistent with three semester hours of credit (approximately 45 to 60 hours per credit hour or 135 to 180 hours total effort).

5. A total of 30 credits is required for the degree.

FACULTY

T. Bart Quimby, Professor, AFTBQ@uaa.alaska.edu
Tom Ravens, Professor, AFTMR@uaa.alaska.edu
Orson Smith, Professor, AFOPS@uaa.alaska.edu
Zhaohui Yang, Associate Professor, AFZY@uaa.alaska.edu
Hannele Zubeck, Professor/Chair, AFHKZ@uaa.alaska.edu
Appendix A - Links to Templates

The following templates can be found at [www.uaa.alaska.edu/governance/coordination/index.cfm]:

- **Budget Worksheet** - Provides detailed budget information for a new program.

- **Coordination Spreadsheet Template** - Provides format for submission of coordination to the academic boards when a course affects more than three other courses or programs (box 13a of the CAR)

- **Fee Request Form** - Fee requests, associated with particular curriculum proposals, will be reviewed by the Office of Academic Affairs. The Provost’s approval is required before fees are implemented. See Board of Regents Policy and Regulations Part V Chapter X for course fee information [http://www.alaska.edu/bor/policy-regulations](http://www.alaska.edu/bor/policy-regulations).

- **Four-Year Course Offering Plan** - Identifies the Four-Year Course Offering Plan for a new program.

- **Resource Implication Form** - Identifies fiscal impacts of a proposed action.

The following templates can be obtained from OAA:

- **Board of Regents** - Provides detailed information required by Statewide for new programs or major program changes.

The following template is available from the Academic Assessment Committee Website ([http://www.uaa.alaska.edu/governance/academic_assessment_committee/index.cfm](http://www.uaa.alaska.edu/governance/academic_assessment_committee/index.cfm))

- **Academic Assessment Plan** - Identifies the outcomes and assessment strategies for a new program or a major or minor program change.
Appendix B - Links to Examples

Click on the link to see examples of the following:

- **Budget Worksheet:**
  www.uaa.alaska.edu/governance/coordination/index.cfm

- **Course Action Request (CAR):**
  www.uaa.alaska.edu/governance/coordination/index.cfm

- **Course Content Guide (CCG):**
  www.uaa.alaska.edu/governance/coordination/index.cfm

- **Coordination Spreadsheet:**
  www.uaa.alaska.edu/governance/coordination/index.cfm

- **Faculty Matrix:**
  www.uaa.alaska.edu/governance/coordination/index.cfm

- **Program/Prefix Action Request (PAR):**
  http://www.uaa.alaska.edu/governance/curriculumexamples.cfm

- **Program Academic Assessment Plan:**
  www.uaa.alaska.edu/governance/coordination/index.cfm

- **Prospectus:**
  www.uaa.alaska.edu/governance/coordination/index.cfm

- **Risk Management Plan:**
  www.uaa.alaska.edu/governance/curriculumexamples.cfm
# Appendix C - Observable Verbs

## Cognitive Domain Observable Verbs

The cognitive domain contains skills that deal with the intellect and attaining knowledge. These lists are provided for assistance, but their use is not required.

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Application</th>
<th>Analysis</th>
<th>Synthesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recalls information</td>
<td>Uses knowledge or generalizations in a new situation</td>
<td>Breaks down knowledge into parts and shows relationships among parts</td>
<td>Brings together parts of knowledge to form a whole and builds relationships for new situations</td>
</tr>
</tbody>
</table>

- **Knowledge**
  - Comprehends
  - Arranges
  - Counts
  - Describes
  - Draws
  - Duplicates
  - Identifies
  - Indicates
  - Labels
  - Lists
  - Matches
  - Memorizes
  - Names
  - Orders
  - Outlines
  - Points to
  - Produces
  - Quotes
  - Reads
  - Recalls
  - Recites
  - Recognizes
  - Records
  - Relates
  - Repeats
  - Reproduces
  - Selects
  - Tabulates
  - Traces
  - Writes

- **Application**
  - Associates
  - Chooses
  - Compares
  - Computes
  - Contrasts
  - Converts
  - Defends
  - Differentiates
  - Discusses
  - Dramatizes
  - Estimates
  - Explains
  - Extends
  - Extrapolates
  - Generalizes
  - Gives Examples
  - Infers
  - Interprets
  - Picks
  - Reports
  - Restates
  - Reviews
  - Rewrites
  - Schedules
  - Sketches
  - Summarizes
  - Translates

- **Analysis**
  - Analyzes
  - Appraises
  - Calculates
  - Categorizes
  - Compares
  - Concludes
  - Constructs
  - Contrasts
  - Correlates
  - Criticizes
  - Debates
  - Deduces
  - Detects
  - Determines
  - Develops
  - Diagnoses
  - Differentiates
  - Discriminates
  - Distinguishes
  - Estimates
  - Evaluates
  - Examines
  - Experiments
  - Generalizes
  - Identifies
  - Infers
  - Inspects
  - Initiates
  - Inventories
  - Predicts
  - Questions
  - Relates
  - Separates
  - Solves
  - Tests
  - Transforms

- **Synthesis**
  - Arrange
  - Assembles
  - Collects
  - Combines
  - Compiles
  - Composes
  - Constructs
  - Creates
  - Designs
  - Develops
  - Devises
  - Formulates
  - Generalizes
  - Generates
  - Integrates
  - Manages
  - Organizes
  - Plans
  - Prescribes
  - Prepares
  - Produces
  - Proposes
  - Predicts
  - Rearranges
  - Reconstructs
  - Reorganizes
  - Revises
  - Sets up
  - Specifies
  - Synthesizes
  - Systematizes
  - Writes
<table>
<thead>
<tr>
<th>Comprehension – Interpret information in one’s own words</th>
<th>Evaluation – Make judgments on basis of given criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associates</td>
<td>Appraises</td>
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<tr>
<td>Classify</td>
<td>Argues</td>
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<tr>
<td>Cite examples of</td>
<td>Assesses</td>
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<td>Compares</td>
<td>Attacks</td>
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<td>Computes</td>
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<td>Gives examples</td>
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<td>Identifies</td>
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<td>Indicates</td>
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<td>Interprets</td>
<td>Tests</td>
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<td>Interpolates</td>
<td>Validates</td>
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<td>Locates</td>
<td>Values</td>
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<td>Practices</td>
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<td>Recognizes</td>
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<td>Review</td>
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<td>Selects</td>
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<td>Simulates</td>
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<td>Sorts</td>
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<td>Summarizes</td>
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<td>Tells</td>
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<td>Translates</td>
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</tbody>
</table>


Affective Domain Observable Verbs

The affective domain contains skills that deal with emotions, feelings, and values. You will notice that these verbs span differently than cognitive verbs as pertains to level.

<table>
<thead>
<tr>
<th>Receiving</th>
<th>Responding</th>
<th>Valuing</th>
<th>Organization</th>
<th>Internalization</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Ability to attend to a particular stimuli</em> &lt;br&gt;Asks &lt;br&gt;Chooses &lt;br&gt;Follows &lt;br&gt;Gives &lt;br&gt;Holds &lt;br&gt;Selects &lt;br&gt;Shows interest</td>
<td><em>Active participation when attending to stimuli</em> &lt;br&gt;Accepts &lt;br&gt;Responds &lt;br&gt;Responsibility &lt;br&gt;Answers &lt;br&gt;Assists &lt;br&gt;Be willing to &lt;br&gt;Complies &lt;br&gt;Conforms &lt;br&gt;Enjoys &lt;br&gt;Greets &lt;br&gt;Helps &lt;br&gt;Obeys &lt;br&gt;Performs &lt;br&gt;Practices &lt;br&gt;Presents &lt;br&gt;Reports &lt;br&gt;Selects &lt;br&gt;Tells</td>
<td><em>Worth or value student attaches to something</em> &lt;br&gt;Associates with &lt;br&gt;Assumes &lt;br&gt;Responsibility &lt;br&gt;Believes in &lt;br&gt;Be convinced &lt;br&gt;Completes &lt;br&gt;Completes &lt;br&gt;Describes &lt;br&gt;Differentiates &lt;br&gt;Has faith in &lt;br&gt;Initiates &lt;br&gt;Invites &lt;br&gt;Justifies &lt;br&gt;Participates &lt;br&gt;Proposes &lt;br&gt;Selects &lt;br&gt;Shares &lt;br&gt;Subscribes to &lt;br&gt;Works</td>
<td><em>Bringing together different values, resolving conflicts between them</em> &lt;br&gt;Adheres to &lt;br&gt;Alters &lt;br&gt;Arranges &lt;br&gt;Classifies &lt;br&gt;Combines &lt;br&gt;Defends &lt;br&gt;Establishes &lt;br&gt;Forms judgments &lt;br&gt;Identifies with &lt;br&gt;Integrates &lt;br&gt;Orients &lt;br&gt;Performs &lt;br&gt;Practices &lt;br&gt;Proposes &lt;br&gt;Qualifies &lt;br&gt;Questions &lt;br&gt;Serves &lt;br&gt;Shows mature &lt;br&gt;attitude &lt;br&gt;Solves &lt;br&gt;Verifies</td>
<td><em>Value system controls behavior to develop a characteristic behavior that is pervasive, consistent, and predictable.</em> &lt;br&gt;Acts &lt;br&gt;Changes behavior &lt;br&gt;Develops a code of behavior &lt;br&gt;Develops a philosophy of life &lt;br&gt;Influences &lt;br&gt;Judges &lt;br&gt;problems/issues &lt;br&gt;LISTENS &lt;br&gt;Performs &lt;br&gt;Practices &lt;br&gt;Proposes &lt;br&gt;Qualifies &lt;br&gt;Questions &lt;br&gt;Serves &lt;br&gt;Shows mature attitude &lt;br&gt;Solves &lt;br&gt;Verifies</td>
</tr>
</tbody>
</table>
Psychomotor Domain Observable Verbs

The psychomotor domain contains skills that deal with one's physical development and well being.

<table>
<thead>
<tr>
<th>Imitating</th>
<th>Manipulating</th>
<th>Perfecting</th>
<th>Articulating</th>
<th>Naturalizing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observes a skill and attempts to repeat it, or see a finished product and attempts to replicate it while attending to an exemplar.</td>
<td>Performs the skill or produces the product in a recognizable fashion by following general instructions.</td>
<td>Independently performs the skill or produces the product, with apparent ease, at an expert level.</td>
<td>Modifies the skill or produces the product to fit new situations while maintaining nearly flawless perfection and showing great ease of execution.</td>
<td>Automatically, flawlessly and effortlessly perform the skill or produces the product tailored to the situation. Naturally Perfectly</td>
</tr>
<tr>
<td>Attemps</td>
<td>Complete</td>
<td>Achieves</td>
<td>Adapts</td>
<td></td>
</tr>
<tr>
<td>Copies</td>
<td>Does</td>
<td>Automatically</td>
<td>Advances</td>
<td></td>
</tr>
<tr>
<td>Duplicates</td>
<td>Follows</td>
<td>Excel</td>
<td>Advances</td>
<td></td>
</tr>
<tr>
<td>Imitates</td>
<td>Manipulates</td>
<td>Expertly</td>
<td>Alterns</td>
<td></td>
</tr>
<tr>
<td>Mimics</td>
<td>Plays</td>
<td>Masterfully with improvements</td>
<td>Customizes</td>
<td></td>
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<tr>
<td>Reproduces</td>
<td>Performs</td>
<td>with</td>
<td>Originates</td>
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<tr>
<td>Responds</td>
<td>Produces</td>
<td>Refines</td>
<td>With fundamental revisions</td>
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<tr>
<td>Starts</td>
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<td>With great skill</td>
<td></td>
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<tr>
<td>Tries to</td>
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<tr>
<td>Using a model</td>
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</tbody>
</table>
Appendix D - The Undergraduate & Graduate Academic Boards

The Undergraduate and Graduate Academic Boards review and approve academic policies. They also review and approve new or revised courses/programs/prefixes initiated by faculty and undertake other tasks assigned by the UAA Faculty Senate (Reference: UAA Faculty Senate Bylaws of the Constitution Article V Section 3[a-d]).

Membership

Voting Members

Undergraduate Academic Board (UAB)

Each academic unit elects its UAB representative(s) according to Section 3.a. of the Bylaws of the UAA Faculty Senate Constitution. This includes one non-Senate faculty representative from each of the schools and colleges (except the College of Arts and Sciences, which has two), one adjunct faculty member, one library faculty representative, one faculty member from each community campus, and one faculty member from Student Affairs. Members serve two-year terms with one half of the members elected each year. In addition, the Senate chooses four senators to serve on the board as follows:

- Arts and Sciences (1)
- At-large members (3)

Students may appoint one undergraduate-degree-seeking or certificate-seeking student to voting membership on the UAB. It is the responsibility of the Union of Students at UAA (USUAA) to select this representative.

Graduate Academic Board (GAB)

Each academic unit elects its GAB representative according to Section 3.c. of the Bylaws of the UAA Faculty Senate Constitution. Members of the board must be faculty involved in graduate programs. This includes non-Senate faculty representative(s) from each degree granting school/college and the library as elected by the faculty within their respective units. Members serve two-year terms with one half of the members elected each year. In addition, the Senate chooses four senators to serve on the board as follows:

- Arts and Sciences (1)
- At-large members (3)

Students may appoint one graduate-degree-seeking student to voting membership on the GAB. It is the responsibility of the USUAA to select this representative.

Nonvoting Members

One representative from the Office of Academic Affairs, appointed by the Provost, one representative from the Office of the Registrar, and one representative from Enrollment Management, Publications and Scheduling, shall be ex-officio and nonvoting members of the Undergraduate and Graduate Academic Boards.

Responsibilities

Membership

- Members are responsible for attending all meetings.
- If a member is unable to attend, that member is responsible for providing a replacement.
- Members act as a liaison between the UAB/GAB and the member’s department/school/college.
- Members must inform departments in their school/college when their proposals are on the agenda.
- Members must review the agenda and attachments prior to each meeting.
Chair

- The presiding chairs of UAB/GAB are elected by their respective boards and must have served on the respective board for a minimum of one year.
- The chair is responsible for attending all meetings.
- If the chair is unable to attend, he/she appoints an acting chair.
- The chair acts as a liaison between UAB/GAB and others as necessary.
- The chairs sign CARs and represent UAB/GAB at UAA Faculty Senate meetings.
- The chairs serve as members of UAA Faculty Senate Executive Board and may represent UAA in system governance issues.
- The chairs may represent the faculty on an ad hoc basis during the year and attend special meetings (such as meeting prospective employee candidates, meeting the Board of Regents, or serving on special task forces).

Meeting Schedule

Regular Meetings

_Undergraduate Academic Board_

During the academic year, UAB meets at 2 p.m. each Friday, except for the first Friday of each month which is the day the UAA Faculty Senate meets. Meetings commence the first week after faculty contracts begin. The schedule is given to UAB members at the beginning of each academic year and posted on the Governance website.

_Graduate Academic Board_

During the academic year, GAB meets at 9:30 a.m. the second and fourth Fridays of each month. Meetings commence the first week after faculty contracts begin. The schedule is given to GAB members at the beginning of each academic year and posted on the Governance website.

Summer Meetings

Neither UAB/GAB meets during June or July. If any curricular items need action during the summer, the UAB/GAB chair or designee reviews the paperwork with a volunteer group of continuing UAB/GAB members. Under such circumstances, the UAA Faculty Senate Executive Committee acts on behalf of the UAA Faculty Senate (UAA Faculty Senate Constitution Article IV Section 11). Approved actions must be reported to UAB/GAB at the first UAB/GAB meeting of the academic year. No policy changes are considered during the summer.

Meeting Notification

All meetings are public meetings. Meeting announcements, agendas, and locations are posted on the Governance webpage.

Agenda and Summary

Structure

_Date, Time, and Location_

- The agenda lists the date, time, and place of the meeting. Meetings may be teleconferenced if necessary.

_I. Roll_

_II. Approval of the Agenda_

_III. Approval of Meeting Summary_
IV. Administrative Report

V. Chair’s Report

VI. Course Action Request (CAR) or Program/Prefix Action Request (PAR)-Second Reading

VII. CAR or PAR-First Reading

VIII. Old Business

IX. New Business

X. Informational Items

XI. Adjournment

Definitions

Meeting Summary
The meeting summary includes the roll, all action items, a list of information items, and time of adjournment.

First Reading
- Representatives from the department/school/college must attend the UAB/GAB meeting when their proposal is discussed. If no representative is present, the proposal is tabled.
- All proposals are routinely accepted for First Reading unless tabled (for a specific length of time and for a stated purpose), removed from the agenda (usually by the department/school/college that initiated the item) or formally not accepted for First Reading (usually the item is then sent back to the department/school/college for revision).
- Proposals not properly coordinated before First Reading will be tabled.
- Actions involving changes in General Education Requirements (GER) are referred to the General Education Review Committee (GERC).
- Proposals accepted for First Reading are usually placed on the next agenda for Second Reading. Proposals can be accepted with suggested changes. UAB/GAB, administration, or the submitting department may suggest changes.
- No vote is necessary to accept an item for First Reading.
- Acceptance for First Reading does not predetermine automatic approval at Second Reading.
- Board members should work closely with their department/school/college regarding all recommendations made at UAB/GAB meetings and assist their colleagues in the preparation of the proper paperwork.

CARs and PARs
- CARs and PARs initiated by faculty are required to request curriculum actions. For more information, see the chapters on CARs and PARs.
- Academic Policy: A variety of sources including individuals, departments, schools, colleges, administration, and other boards and committees may initiate new or revised academic policy proposals. Revised policy proposals should include a copy of both the old and new policies with rationale/justification for the new policy or revision. All policy proposals are reviewed and must be approved by UAB/GAB, UAA Faculty Senate, and the administration.

Second Reading
- Second readings usually occur at the next regularly scheduled meeting. All proposals placed on the agenda for Second Reading are voted on by a show of hands or yes/no if audio-conferenced.
- UAB/GAB usually act on proposals at Second Reading but may postpone action if further deliberation or information is necessary.

Informational Items
- The Board may discuss these items and/or request that the items be placed on a future agenda for
Meeting Procedure

UAB/GAB meetings are governed by Robert’s Rules of Order.
A quorum is a majority of the voting members present. Voting is done by a show of hands or yes/no if audio-conferenced. Votes are recorded as For, Against, Abstain, or Unanimous. A simple majority carries the vote. In the event of a tie, the chair casts the deciding vote.

Note: Proxy voting is not permitted by any UAA faculty boards and committees. Proxy voting is incompatible with the essential characteristics of a deliberative assembly in which membership is individual, personal, and nontransferable, in that voting should take place subsequent to discussion and deliberation.

Administrative Support

The Governance Office provides administrative support to UAB/GAB. The Governance Office works closely with the chairs of the boards and prepares and posts the agendas, summaries, and reports on the governance webpage at www.ualaska.edu/governance. In addition, the office will work with appropriate departments to provide guidance in the preparation and approval of all required actions. The Governance Office, the UAB/GAB chairs and representatives from the Office of Academic Affairs act as liaisons between the Undergraduate Academic Board, the Graduate Academic Board, the Office of Academic Affairs, the Chancellor, and other UAA departments as necessary.
Appendix E - Guidelines on Student Learning Outcomes for Courses and Programs

From Council on Higher Education Accreditation – Statement on Shared Responsibilities

Student Learning Outcomes should:
- Communicate what students will be able to do after they successfully complete the program/course
- Be representative of the program/course performance, defining for students the accomplishments expected from program/course participation
- Be verifiable through replication by third-party inspection
- Be relevant to the curriculum

Measurements may be direct and/or indirect. Examples of each are below:
- Direct measurements: exams, graded assignments related to outcomes, professionally judged demonstrations or performances, portfolios
- Indirect measurements: student self-perceptions, employer surveys or job placement, focus groups

Assessment of student learning outcomes should use properties of good evidence:
- Comprehensiveness – measures a full range of outcomes
- Multiple judgment – uses several sources
- Multiple dimensions – indicates different facets of student performance related to student learning outcomes to show strengths and weaknesses
- Directness – involves direct scrutiny of student performance
Appendix F - Guidelines for UAA Distance Education Courses

Please follow the link below to the Distance Education Handbook:


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<th>1a. School or College</th>
<th>AMSC Division of Math Science</th>
<th>1c. Department</th>
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<tr>
<td>AS CAS</td>
<td>Biomedical Sciences</td>
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<tr>
<th>2. Course Prefix</th>
<th>3. Course Number</th>
<th>4. Previous Course Prefix &amp; Number</th>
<th>5a. Credits/CEUs</th>
<th>5b. Contact Hours (Lecture + Lab)</th>
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<tr>
<td>BIOL</td>
<td>A108</td>
<td>N/A</td>
<td>6</td>
<td>(3+9)</td>
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<th>6. Complete Course Title</th>
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<tbody>
<tr>
<td>Principles and Methods in Biology</td>
</tr>
<tr>
<td>Principles &amp; Methods Biology</td>
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<tr>
<th>Abbreviated Title for Transcript (30 character)</th>
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<tr>
<td>Principles and Methods in Biology</td>
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<th>7. Type of Course</th>
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<th>8. Type of Action:</th>
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<td>Add</td>
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<th>9. Repeat Status No</th>
<th># of Repeats</th>
<th>Max Credits</th>
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<th>10. Grading Basis</th>
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<tr>
<th>11. Implementation Date</th>
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<tbody>
<tr>
<td>From: Fall/2015</td>
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<td>To: Fall/9999</td>
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<tr>
<th>12. Cross Listed</th>
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<td>No</td>
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<tr>
<th>13a. Impacted Courses or Programs:</th>
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<tbody>
<tr>
<td>List any programs or college requirements that require this course.</td>
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<thead>
<tr>
<th>Impacted Program/Course</th>
<th>Date of Coordination</th>
<th>Chair/Coordinator Contacted</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>Initiator Name (typed): Khrys Duddleston</td>
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<tr>
<th>13b. Coordination Email</th>
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<tr>
<td>Date: 6Jan14</td>
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<tr>
<th>13c. Coordination with Library Liaison</th>
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<tr>
<th>14. General Education Requirement</th>
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<tr>
<td>Mark appropriate box:</td>
</tr>
<tr>
<td>Oral Communication</td>
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<tr>
<td>Written Communication</td>
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<tr>
<td>Quantitative Skills</td>
</tr>
<tr>
<td>Humanities</td>
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<tr>
<td>Fine Arts</td>
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<tr>
<td>Social Sciences</td>
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<tr>
<td>Natural Sciences</td>
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<tr>
<td>Integrative Capstone</td>
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<tr>
<th>15. Course Description (suggested length 20 to 50 words)</th>
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<td>Introduces the biological sciences through an exploration of core themes and fundamental skills. Exposes students to biological theory and laboratory practice through integrated lecture and experiential learning modules.</td>
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<tr>
<th>16a. Course Prerequisite(s) (list prefix and number or test code and score)</th>
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<tr>
<td>CHEM A105 or concurrent enrollment</td>
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<tr>
<th>16b. Co-requisite(s) (concurrent enrollment required)</th>
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<tr>
<th>16c. Automatic Restriction(s)</th>
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<tr>
<td>College Major Class Level</td>
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| 16d. Registration Restriction(s) (non-codable) |

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<tr>
<th>17. Mark if course has fees</th>
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| 18. Mark if course is a selected topic course |

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<tr>
<th>19. Justification for Action</th>
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<tr>
<td>This is a new introductory biology course meant to replace our traditional 2-semester intro series (BIOL A115 and BIOL A116). This change is part of our overall curriculum revision, which seeks to align our degree with the core concepts and competencies outlined in Vision and Change in Undergraduate Biology Education (National Science Foundation and American Association for the Advancement of Science)</td>
</tr>
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<thead>
<tr>
<th>Initiator (faculty only): Khrys Duddleston</th>
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<tr>
<th>Initiator (TYPE NAME)</th>
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<tr>
<th>Approved</th>
<th>Disapproved</th>
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<td>Dean/Director of School/College</td>
<td>Date</td>
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<th>Disapproved</th>
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<tr>
<td>Undergraduate/Graduate Academic</td>
<td>Date</td>
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<tr>
<th>Approved</th>
<th>Disapproved</th>
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<tr>
<td>Board Chair</td>
<td>Date</td>
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<tr>
<th>Approved</th>
<th>Disapproved</th>
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<tr>
<td>Provost or Designee</td>
<td>Date</td>
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Initiator Name (faculty only): Khrys Duddleston

Initiator (TYPE NAME):
University of Alaska Anchorage  
College of Arts and Sciences  
Course Content Guide

I. Initiation Date:  
Spring 2014

II. Course Information
A. College:  
College of Arts and Sciences
B. Course prefix:  
BIOL
C. Course Number:  
A108
D. Number of credits:  
6
E. Contact Hours:  
3+9
F. Course Title:  
Principles and Methods in Biology
G. Grading Basis:  
A-F
H. Implementation Date:  
Fall 2015
I. Cross-listed/Stacked:  
N/A
J. Course Description:  
Introduces the biological sciences through an exploration of core themes and fundamental skills. Exposes students to biological theory and laboratory practice through integrated lecture and experiential learning modules.

K. Course Prerequisites:  
CHEM A105 or concurrent enrollment
L. Course Co-requisites:  
N/A
M. Other restrictions:  
N/A
N. Registration Restrictions:  
N/A
O. Course Fees:  
Yes

III. Instructional Goals and Student Learning Outcomes
A. Instructional Goals. The instructor will:
   1. In each module, assign and lead discussions of relevant and essential background literature in experimental design and critical thinking skills relevant to the module’s theme.
   2. Guide the students in learning exercises and demonstrate appropriate skills
   3. Provide feedback and criticism on student writing, presentation, and critical thinking processes to help develop student skills in these areas.

B. Student Learning Outcomes and Assessment Measures:

<table>
<thead>
<tr>
<th>Student Learning Outcomes: Upon completion of this course, the student will be able to:</th>
<th>Assessment Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Demonstrate scientific writing and presentation skills</td>
<td>In class presentations, written assignments, peer evaluation and feedback</td>
</tr>
<tr>
<td>2. Demonstrate ability to generate and present scientific data</td>
<td>In class presentations, written assignments, and/or examinations</td>
</tr>
<tr>
<td>3. Demonstrate an appreciation for and understanding of core concepts in biological sciences</td>
<td>In class presentations, written assignments, and/or examinations</td>
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IV. Course Level Justification
Introducing students to core themes and skills foundational to further learning in the biological and natural sciences.

V. Topical Course Outline
The course will be organized into three major sections, each with closely linked lecture and experiential learning materials and activities. The specific examples used within each module will vary by semester, but modules will be constructed around core biological concepts and competencies.

A. Core biological concepts: Each module will focus on one or two of the following core concepts in the biological sciences such that all four are incorporated into a single semester.
   a. Evolutionary theory
      i. A primary focus in module 1
      ii. Underlies all additional concepts
   b. Transformation of energy and matter
   c. Structure and function
      i. Ecosystem
      ii. Organismal/cellular
   d. Informational theory (information flow, exchange, storage)

B. Core biological competencies: Specified learning objectives for each module will ensure that all students achieve the necessary skills to progress to 200 level courses in the field.
   a. Module 1: Introduction to basic biological processes and skills
      i. Diversity of scientific ways of knowing
      ii. Structure of scientific literature and writing
      iii. Basic laboratory skills for the sciences
      iv. Hypothesis testing
      v. Experimental design
   b. Module 2: Data gathering, assessment, understanding and presentation
      i. Design and conduct experiment
      ii. Basic statistical skills common across the sciences
      iii. Generating tables and figures from data
      iv. Present quantifiable data
      v. Organizing short presentations
   c. Module 3: Scientific writing and presentation skills, demonstrating competence in core skills
      i. Organization of papers and presentations
      ii. Comparing “good” vs. “bad” writing in the sciences
      iii. Produce and present complete experimental report
      iv. Drawing conclusions from data – facts vs. theories
      v. Presenting convincing scientific cases

VI. Suggested Texts


VII. Bibliography

Selected articles from journals such as:
Course Action Request
University of Alaska Anchorage
Proposal to Initiate, Add, Change, or Delete a Course

1a. School or College
AS CAS

1b. Division
AMSC Division of Math Science

1c. Department
Biological Sciences

2. Course Prefix
BIOL

3. Course Number
A365

4. Previous Course Prefix & Number
N/A

5a. Credits/CEUs
3

5b. Contact Hours
(Lecture + Lab)
(3+0)

6. Complete Course Title
Astrobiology

Abbreviated Title for Transcript (30 character)

7. Type of Course
☒ Academic
☐ Preparatory/Development
☐ Non-credit
☐ CEU
☐ Professional Development

8. Type of Action:
☐ Add
☒ Change
☐ Delete

If a change, mark appropriate boxes:

☐ Prefix
☐ Credits
☐ Title
☐ Grading Basis
☐ Course Description
☐ Test Score Prerequisites
☐ Automatic Restrictions
☐ Other CCG (please specify)
☐ Contact Hours
☐ Repeat Status
☐ Course Prerequisites
☐ Co-requisites
☐ Registration Restrictions
☐ General Education Requirement

9. Repeat Status No
☐ # of Repeats
☐ Max Credits

10. Grading Basis
☒ A-F
☐ P/NP
☐ NG

11. Implementation Date
From: Fall/2015
To: Fall/9999

12. ☒ Cross Listed with
ASTR A365

13a. Impacted Courses or Programs: List any programs or college requirements that require this course.
Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

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Initiator Name (typed): Khrys Duddleston
Initiator Signed Initials: ________
Date: __________

13b. Coordination Email
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison
Date: 6Jan14

14. General Education Requirement
Mark appropriate box:
☐ Oral Communication
☐ Written Communication
☐ Social Sciences
☐ Quantitative Skills
☐ Natural Sciences
☒ Integrative Capstone

15. Course Description (suggested length 20 to 50 words)
A comprehensive examination of the possibility of the existence of life (microbial and advanced) outside of the Earth, the probability of discovery of extraterrestrial life (methods of planet detection, chemical signatures of microbial life, and contact with advanced life), and the scientific and cultural implications of such a discovery. Includes the study of star and planet formation rates, habitability zones, origin of life, evolution, and formation of intelligence.

16a. Course Prerequisite(s) (list prefix and number or test code and score)
BIOL A108 and [PHYS A123 or PHYS A211]

16b. Co-requisite(s) (concurrent enrollment required)

16c. Automatic Restriction(s)
☒ College
☐ Major
☐ Class
☐ Level

16d. Registration Restriction(s) (non-codable)
Junior standing or higher; completion of all GER Tier 1 courses required

17. ☒ Mark if course has fees

18. ☐ Mark if course is a selected topic course

19. Justification for Action
Update of BIOL prerequisite in response to changes in BIOL courses and curriculum.

Initiator (faculty only)
Khrys Duddleston
Initiator (TYPE NAME)

☐ Approved
☐ Disapproved

Dean/Director of School/College
Date

☐ Approved
☐ Disapproved

Undergraduate/Graduate Academic
Board Chair
Date

☐ Approved
☐ Disapproved

Provost or Designee
Date
University of Alaska Anchorage
College of Arts and Sciences
Course Content Guide

I. Date of Initiation: Spring 2014

II. Curriculum Action Request
A. College: College of Arts and Sciences
B. Course Prefix: BIOL
C. Course Number: A365
D. Number of Credits: 3
E. Contact Hours: 3+0
F. Course Title: Astrobiology
G. Grading Basis: A-F
H. Implementation Date: Fall 2015
I. Cross-listed/Stacked: ASTR A365
J. Course Description: A comprehensive examination of the possibility of the existence of life (microbial and advanced) outside of the Earth, the probability of discovery of extraterrestrial life (methods of planet detection, chemical signatures of microbial life, and contact with advanced life), and the scientific and cultural implications of such a discovery. Includes the study of star and planet formation rates, habitability zones, origin of life, evolution, and formation of intelligence.
K. Course Prerequisites: BIOL A108 and [PHYS A123 or PHYS A211]
L. Course Co-requisites: N/A
M. Other Restrictions: N/A
N. Registration Restrictions: Junior standing; completion of all GER Tier 1 courses is required.
O. Course Fees: Yes

III. Instructional Goals and Student Learning Outcomes
A. Instructional Goals. The instructor will:
1. Provide a basic description of the physical, chemical and geological properties necessary for the origin and sustainability of life on Earth.
2. Build on this conceptual framework to describe how other moon, planet and star systems have zones of habitability in which life can exist.
3. Discuss the physical features of other worlds within our Solar System and beyond which may allow life to develop.
4. Describe how life evolves in tandem with its changing environment. Provide detailed examples of how the physiological straits of organisms are uniquely linked to their habitat, and of how changes in that habitat may influence species diversity and abundance through impacts on physiological properties.
5. Discuss the techniques used to search for extraterrestrial planets on which life could exist. Explore future missions and technologies that will search for the chemical signatures of simple life forms on these worlds.
6. Discuss the role of intelligence in the evolution of life, and its implications for the likelihood of advanced extraterrestrial life forms capable of communicating with us.
7. Examine the techniques used to search for advanced life in the Universe, and explore the scientific and cultural implications of such a discovery.
8. Teach students how to evaluate and integrate information from a variety of different sources and perspectives.

B. Student Learning Outcomes and Assessment Measures

<table>
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<tr>
<th>Student Learning Outcomes: Upon completion of this course, the student will be able to:</th>
<th>Assessment Measures</th>
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<td>1. Articulate in depth the processes of the origins and evolution of life in different ecosystems. Conceptually link the chemistry and physiology of living organisms with the physical and biological aspects of their environment.</td>
<td>Written assignments and examinations</td>
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<tr>
<td>2. Critically integrate information read from scientific articles provided in lecture and textbook assignments, and apply this information to evaluate the scientific accuracy of popular press (TV, newspaper, magazine, web) reports related to astrobiology.</td>
<td>Written assignments and examinations</td>
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<tr>
<td>3. Effectively describe the likelihood of &quot;contact&quot; with an advanced civilization, and discuss the scientific and cultural impacts of such a discovery.</td>
<td>Written assignments and examinations</td>
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<tr>
<td>4. Assess the long-term prospects for the habitability for life of the Earth. In particular, explore the nature of human impacts on ecosystems through in depth study of current 'hot topics' such as global warming.</td>
<td>Written assignments and examinations</td>
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IV. Course Level Justification

Students are required to learn and integrate information from a variety of scientific disciplines as it relates to astrobiology, to read, understand, and apply ideas conveyed by primary scientific literature, to synthesize astrophysical, chemical, geological and biological knowledge and social considerations; and to apply course materials to this topic.

GER Integrative Capstone Justification:
Justifications for designating BIOL A365 Astrobiology as a GER Integrative Capstone course include its emphases on:

1. Knowledge Integration / Interrelationships and synergy among GER disciplines: Astrobiology’s relationship to the other natural and social sciences is an overall theme of the course. This course focuses on the interfaces between physical sciences (astronomy, chemistry, physics, geology), biological sciences (molecular biology, origins of life, evolutionary biology),
and the social sciences, particularly as they relate to the implications of the discovery of extraterrestrial life.

2. Effective communication skills: Course success demands effective communication through essay examinations, individual classroom presentations, brief reports (oral and written) on hot topics from the local media, and a final research paper.

3. Critical Thinking: Students will succeed in this class if they are able to integrate information across disciplines, and critically evaluate the reliability of data and positions presented in lecture, texts, scientific, and popular viewpoints. Students' ability to critically evaluate diverse materials will be determined based on writing assignments, class presentations, and exams.

4. Information literacy: Students are expected to achieve and demonstrate computer and Internet skills for acquiring information relevant to current topics in astrobiology. This will involve both research in the primary scientific literature (via library and internet resources) and the collection of information from more 'public' sources such as TV, Web, popular press magazines and newspapers, and advocacy organizations. Students must show that they can critically and appropriately evaluate scientific content in 'public' sources based on knowledge gleaned from 'scientific' sources.

5. Quantitative Perspectives: A critical understanding of astrobiology requires that students grasp quantitative concepts such as how a star's mass affects the size and longevity of a habitability zone, and how cell size affects metabolic and reproductive rates. In addition, students must be able to read and interpret scientific graphs (quantitative data, graphically displayed), and to generate graphs showing the relationship between different properties (such as the temperature and luminosity of a star). Exams will specifically test on these skills.

5. Evolving realities of the 21st Century: The growing knowledge that understanding the possibility and probability of life on another planet is to understand how life originated on ours. It creates a special perspective on the uniqueness of life on Earth, and its fragility. This is particularly relevant in the context that humans are having large and potentially irreversible impacts on the habitability of the Earth for many forms of life, which has been a recent focus of scientific and political discussions.

V. Topical Course Outline
   A. An Introduction to Life in the Universe
      1. The Possibilities of Life Beyond Earth
      2. The Scientific Context of the Search
      3. The New Science of Astrobiology
   B. The Habitability of the Earth
      1. Geology and Life
      2. Habitability
      3. Climate Regulation and Change
   C. The Nature of Life on Earth
      1. Defining Life
      2. Cells: The Basic Units of Life
      3. Metabolism
      4. DNA and Heritability
   D. Origin and Evolution of Life on Earth
      1. Searching for the Origin of Life
      2. The Evolution of Life
3. Impacts and Extinctions

E. Life in the Solar System
   1. The Inner Solar System
   2. The Outer Solar System
   3. Spacecraft and Exploration

F. Mars
   1. Fantasies of Martian Civilization
   2. Modern Portrait of Mars
   3. The Climate History of Mars
   4. Searching for Life on Mars

G. The Jovian Moons
   1. Life on the Galilean Moons
   2. Life on Saturn and Beyond

H. The Nature and Evolution of Habitability
   1. The Concept of a Habitable Zone
   2. Venus and Mars: Examples in Potential Habitability
   3. The Future of Life on Earth
   4. Global Warming

I. Habitability Outside the Solar System
   1. Extrasolar Planets
   2. Stellar Classification
   3. Rare Earth?

J. The Search for Extraterrestrial Intelligence
   1. The Drake Equation
   2. The Question of Intelligence
   3. Searching for Intelligence

K. Interstellar Travel
   1. The Challenge of Interstellar Travel
   2. Building a Spaceship for Interstellar Travel
   3. Fermi’s Paradox

VI. Suggested Texts


VII. Bibliography


Course Action Request
University of Alaska Anchorage
Proposal to Initiate, Add, Change, or Delete a Course

1a. School or College
AS CAS

1b. Division
AMSC Division of Math Science

1c. Department
Physics/Astronomy

2. Course Prefix
ASTR

3. Course Number
A365

4. Previous Course Prefix & Number
N/A

5a. Credits/CEUs
3

5b. Contact Hours
(Lecture + Lab)
(3+0)

6. Complete Course Title
Astrobiology

Abbreviated Title for Transcript (30 character)

7. Type of Course
☑ Academic ☐ Preparatory/Development ☐ Non-credit ☐ CEU ☐ Professional Development

8. Type of Action:
☐ Add ☒ Change ☐ Delete

If a change, mark appropriate boxes:

☐ Prefix ☐ Course Number ☐ Contact Hours ☐ Repeat Status
☐ Grade Basis ☐ Cross-Listed/Stacked ☐ Co-requisites
☐ Course Description ☐ Course Prerequisites
☐ Test Score Prerequisites ☐ Registration Restrictions
☐ Automatic Restrictions ☐ General Education Requirement
☐ Other CCG (please specify)

9. Repeat Status No
☐ # of Repeats ☐ Max Credits

10. Grading Basis
☒ A-F ☐ P/NP ☐ NG

11. Implementation Date
From: Fall/2015 To: Fall/9999

12. ☒ Cross Listed with ☐ BIOL A365

13a. Impacted Courses or Programs:
List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

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Initiator Name (typed): Khrys Duddleston/Travis Rector

Initiator Signed Initials: _________ Date: _________

13b. Coordination Email
Date: 6Jan14

submitted to Faculty Listserv: (uea-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison
Date: 6Jan14

14. General Education Requirement
Mark appropriate box:

☐ Oral Communication ☐ Written Communication ☐ Quantitative Skills ☐ Humanities
☐ Fine Arts ☐ Social Sciences ☐ Natural Sciences ☒ Integrative Capstone

15. Course Description (suggested length 20 to 50 words)
A comprehensive examination of the possibility of the existence of life (microbial and advanced) outside of the Earth, the probability of discovery of extraterrestrial life (methods of planet detection, chemical signatures of microbial life, and contact with advanced life), and the scientific and cultural implications of such a discovery. Includes the study of star and planet formation rates, habitability zones, origin of life, evolution, and formation of intelligence.

16a. Course Prerequisite(s) (list prefix and number or test code and score)
BIOL A108 and [PHYS A123 or PHYS A211]

16b. Co-requisite(s) (concurrent enrollment required)

16c. Automatic Restriction(s)
☒ College ☐ Major ☐ Class ☐ Level

16d. Registration Restriction(s) (non-codable)
☒ Junior standing or higher; completion of all GER Tier 1 courses required

17. ☒ Mark if course has fees

18. ☐ Mark if course is a selected topic course

19. Justification for Action
Update of BIOL prerequisite in response to changes in BIOL courses and curriculum.

Initiator (faculty only)
Khrys Duddleston/Travis Rector
Initiator (TYPE NAME)

☐ Approved ☐ Disapproved

Dean/Director of School/College Date

☐ Approved ☐ Disapproved

Undergraduate/Graduate Academic Date

Board Chair

☐ Approved ☐ Disapproved

Provost or Designee Date
I. Date of Initiation: Spring 2014

II. Curriculum Action Request
A. College: College of Arts and Sciences
B. Course Prefix: ASTR
C. Course Number: A365
D. Number of Credits: 3
E. Contact Hours: 3+0
F. Course Title: Astrobiology
G. Grading Basis: A-F
H. Implementation Date: Fall 2015
I. Cross-listed/Stacked: BIOL A365
J. Course Description: A comprehensive examination of the possibility of the existence of life (microbial and advanced) outside of the Earth, the probability of discovery of extraterrestrial life (methods of planet detection, chemical signatures of microbial life, and contact with advanced life), and the scientific and cultural implications of such a discovery. Includes the study of star and planet formation rates, habitability zones, origin of life, evolution, and formation of intelligence.
K. Course Prerequisites: BIOL A108 and [PHYS A123 or PHYS A211]
L. Course Co-requisites: N/A
M. Other Restrictions: N/A
N. Registration Restrictions: Junior standing; completion of all GER Tier 1 courses is required.
O. Course Fees: Yes

III. Instructional Goals and Student Learning Outcomes
A. Instructional Goals. The instructor will:
   1. Provide a basic description of the physical, chemical and geological properties necessary for the origin and sustainability of life on Earth.
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5. Evolving realities of the 21st Century: The growing knowledge that understanding the possibility and probability of life on another planet is to understand how life originated on ours. It creates a special perspective on the uniqueness of life on Earth, and its fragility. This is particularly relevant in the context that humans are having large and potentially irreversible impacts on the habitability of the Earth for many forms of life, which has been a recent focus of scientific and political discussions.

V. **Topical Course Outline**

A. An Introduction to Life in the Universe
   1. The Possibilities of Life Beyond Earth
   2. The Scientific Context of the Search
   3. The New Science of Astrobiology

B. The Habitability of the Earth
   1. Geology and Life
   2. Habitability
   3. Climate Regulation and Change

C. The Nature of Life on Earth
   1. Defining Life
   2. Cells: The Basic Units of Life
   3. Metabolism
   4. DNA and Heritability

D. Origin and Evolution of Life on Earth
   1. Searching for the Origin of Life
   2. The Evolution of Life
3. Impacts and Extinctions

E. Life in the Solar System
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   2. The Outer Solar System
   3. Spacecraft and Exploration

F. Mars
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   2. Modern Portrait of Mars
   3. The Climate History of Mars
   4. Searching for Life on Mars

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   2. Life on Saturn and Beyond

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   2. Stellar Classification
   3. Rare Earth?

J. The Search for Extraterrestrial Intelligence
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   2. The Question of Intelligence
   3. Searching for Intelligence

K. Interstellar Travel
   1. The Challenge of Interstellar Travel
   2. Building a Spaceship for Interstellar Travel
   3. Fermi's Paradox

VI. Suggested Texts


VII. Bibliography


1a. School or College
AS CAS

1b. Division
AMSC Division of Math Science

1c. Department
Biological Sciences

2. Course Prefix
BIOL

3. Course Number
A417

4. Previous Course Prefix & Number
N/A

5a. Credits/CEUs
3

5b. Contact Hours
(Lecture + Lab)
(3+0)

6. Complete Course Title
Applied Kinesiology and Exercise Physiology

7. Type of Course
☒ Academic ☐ Preparatory/Development ☐ Non-credit ☐ CEU ☐ Professional Development

8. Type of Action: ☒ Add or ☐ Change or ☐ Delete

9. Repeat Status No ☐ # of Repeats ☐ Max Credits

10. Grading Basis
☒ A-F ☐ P/NP ☐ NG

11. Implementation Date
From: Fall/2015 To: Fall/9999

12. ☐ Cross Listed with ☐ Stacked with

13a. Impacted Courses or Programs: List any programs or college requirements that require this course.
Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

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Initiator Name (typed): Khrys Duddleston
Initiator Signed Initials: __________
Date: __________________

13b. Coordination Email
submitted to Faculty Listserv: (uae-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison
Date: 6Jan14

14. General Education Requirement
Mark appropriate box:
☐ Oral Communication ☐ Written Communication ☐ Quantitative Skills ☐ Humanities
☐ Fine Arts ☐ Social Sciences ☐ Natural Sciences ☐ Integrative Capstone

15. Course Description (suggested length 20 to 50 words)
Examines the effects of acute and chronic exercise on physiological and biochemical processes in the body and the role of exercise in health and disease, soreness, and fatigue.

16a. Course Prerequisite(s) (list prefix and number or test code and score)
(BIOL A310 or [BIOL A111 and BIOL A112]) with minimum grade of C.

16b. Co-requisite(s) (concurrent enrollment required)

16c. Automatic Restriction(s)
☒ College ☐ Major ☐ Class ☐ Level

16d. Registration Restriction(s) (non-codable)

17. ☐ Mark if course has fees

18. ☐ Mark if course is a selected topic course

19. Justification for Action
This course contributes to the development of a comprehensive discipline specific area in physiology. As part of our overall curriculum revision, which seeks to align our degree with the core concepts and competencies in Vision and Change in Undergraduate Biology Education (National Science Foundation and American Association for the Advancement of Science), this course will become part of our rotation of upper division electives in physiology. This course has been taught as a BIOL A490 Selected Topics course.
<table>
<thead>
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<th>Date</th>
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<tbody>
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I. Date of Initiation: Spring 2014

II. Curriculum Action Request
A. College: College of Arts and Sciences
B. Course Prefix: BIOL
C. Course Number: A417
D. Number of Credits: 3
E. Contact Hours: 3+0
F. Course Title: Applied Kinesiology and Exercise Physiology
G. Grading Basis: A-F
H. Implementation Date: Fall 2015
I. Cross-listed/Stacked: N/A
J. Course Description: Examines the effects of acute and chronic exercise on physiological and biochemical processes in the body and the role of exercise in health and disease, soreness, and fatigue.
K. Course Prerequisites: {BIOL A310 or [BIOL A111 and BIOL A112]} with minimum grade of C.
L. Course Co-requisites: N/A
M. Other Restrictions: N/A
N. Registration Restrictions: N/A
O. Course Fees: No

III. Instructional Goals and Student Learning Outcomes
A. Instructional Goals. The instructor will:
   1. Build on basic physiological concepts with relevance to exercise.
   2. Discuss how exercise physiology impacts health, disease and the obesity epidemic that industrialized countries are currently facing.
   3. Explain how biochemical processes are altered with exercise.
   4. Explain and discuss relevant procedures to measure exercise physiological variables.

B. Student Learning Outcomes and Assessment Measures

<table>
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<tr>
<th>Student Learning Outcomes: Upon completion of this course, the student will be able to:</th>
<th>Assessment Measures</th>
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<tbody>
<tr>
<td>1. Collect, analyze and interpret exercise physiological data.</td>
<td>Written assignments and examinations</td>
</tr>
<tr>
<td>2. Calculate, evaluate and solve conceptual and mathematical problems related to exercise physiology.</td>
<td>Written assignments and examinations</td>
</tr>
<tr>
<td>3. Demonstrate an understanding of complex biochemical and physiological theories and concepts</td>
<td>Written assignments and examinations</td>
</tr>
<tr>
<td>4. Determine appropriate physiological measurements and procedures for a given problem</td>
<td>Written assignments and examinations</td>
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</table>
IV. **Course Level Justification**
This course adds to previously learned knowledge of physiology.

V. **Topical Course Outline**
A. Thermodynamics and Energetics
   1. Calorimetry
   2. Energy Transduction in Cells and ATP
B. Metabolism
   1. Carbohydrate Metabolism
   2. Krebs Cycle and the Electron Transport Chain
   3. Lactate Metabolism
   4. Lipid and Ketone Metabolism
   5. Protein and Amino Acid Metabolism and Gluconeogenesis
   6. Hormonal Control of Metabolism
C. Ventilation
D. Heart and Systemic Circulation
E. Muscular System
F. Neural Regulation
G. Training Adaptations to Exercise
H. Muscle Soreness, Fatigue and Overtraining
I. Performance Enhancing Drugs
J. High Altitude Physiology
K. Exercise Immunology
L. Exercise and Disease
M. Obesity, Weight Control and Exercise

VI. **Suggested Texts**


VII. **Bibliography**

Course Action Request
University of Alaska Anchorage
Proposal to Initiate, Add, Change, or Delete a Course

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<td>AHUM Division of Humanities</td>
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| Initiator Name (typed): |
| Maria Williams          |

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| Date:                   |
|                          |
| submitted to Faculty Listserv: | (uaa-faculty@lists.uaa.alaska.edu) |

| 13c. Coordination with Library Liaison |
| Date:                   |
|                        |

| 14. General Education Requirement |
| Mark appropriate box: |
| Oral Communication |
| Written Communication |
| Quantitative Skills |
| Humanities |
| Social Sciences |
| Natural Sciences |
| Integrative Capstone |

| 15. Course Description (suggested length 20 to 50 words) |
| Studio course in which students learn the fundamentals of making hand held frame drums in the Athabascan and Southeast Alaskan Indian style. Students will also study the living tradition of Alaska Native drum practices. |

| 16a. Course Prerequisite(s) (list prefix and number or test code and score) |
| n/a |

| 16b. Co-requisite(s) (concurrent enrollment required) |
|                                                      |

| 16c. Other Restriction(s) |
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| Major                    |
| Class                    |
| Level                    |

| 16d. Registration Restriction(s) (non-codable) |
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231
I. Date Initiated  
April 22, 2014

II. Course Information

College/School: College of Arts and Sciences  
Department: Alaska Native Studies  
Program: Alaska Native Studies  
Course Title: Alaska Native Drum Making Techniques: Athabascan and Southeast Style  
Course Number: AKNS A218A  
Credits: 3  
Contact Hours: 1+4  
Grading Basis: A-F  
Course Description: Studio course in which students learn the fundamentals of making hand held frame drums in the Athabascan and Southeastern Alaska Native style. Students will also study the living tradition of Alaska Native drum practices.

Cross Listed: Yes – with MUS A218A

Course Prerequisites: None

Registration Restrictions: None

Fees: Yes

III. Course Activities

Studio course in which students learn the basic construction techniques developed by Alaska Native cultures for single headed, hand held frame drums. The course will involve the process of preparing wood, and steaming the wood to bend into round frames, use of traditional and contemporary material for the drum heads. Students will apply the techniques and design principles to create their own drum. Students will also learn about the living traditions of Alaska Native drum practices.

IV. Course Level Justification

This 200-level class provides skills employed in drum making.

V. Course Outline

This studio style class focuses on the construction of a single-headed hand-held frame drum, common to Athabascan and Southeastern Indians (Tlingit, Haida & Tsimshian). Students will learn the basics, from cutting and stretching of the hides, to design work and painting. The frames will be made from a bentwood steaming process. Students will examine the different styles of hand held drums in Alaska and gain a basic understanding of the relationship of design and use to the Indigenous culture(s).
VI. Instructional Goals and Student Learning Outcomes

A. Instructional Goals.
   The instructor will:

1. Provide historical information and cultural uses of drum making through lecture and hands-on learning, bringing the subject matter to a level within their comprehension.

2. Facilitate class discussion and hands-on learning using Indigenous techniques of steaming and bending wood for drum frames and knowledge of how to prepare material for stretching across the frame to make the drum heads.

3. Teach students to use new tools and create their own designs for the drum heads.

4. Provide interactions with guest lecturers who provide a high level of expertise in their art form to foster student learning and mentorship.

B. Student Learning Outcomes.
   Students will be able to:

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<td>Final product of a drum, with drum head and painted design. Final class critique and discussion</td>
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VIII. Suggested Text

None required.
IX. Bibliography

Reading selections will include articles from a variety of sources. ISER, Alaskool, and the Alaska Native Knowledge Network will be utilized for various historical and current articles.
### Course Action Request

**University of Alaska Anchorage**

**Proposal to Initiate, Add, Change, or Delete a Course**

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**6. Complete Course Title**

Alaska Native Drummaking Techniques: Athabascan and Southeast style

AK Native Drummaking I

**Abbreviated Title for Transcript (30 character):**

AK Native Drummaking I

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**10. Grading Basis**

- A-F
- P/NP
- NG

**11. Implementation Date**

From: Fall/2014  To: /9999

**12. Cross Listed with**

- AKNS A218A

**13a. Impacted Courses or Programs: List any programs or college requirements that require this course.**

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**Initiator Name (typed): Christopher Sweeney**

Initiator Signed Initials: ______  Date: __________

**13b. Coordination Email**

Initiator (TYPE NAME)

submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

**13c. Coordination with Library Liaison**

Date: __________

**14. General Education Requirement**

Mark appropriate box:

- Oral Communication
- Written Communication
- Quantitative Skills
- Social Sciences
- Humanities
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**16a. Course Prerequisite(s) (list prefix and number or test code and score)**

**16b. Co-requisite(s) (concurrent enrollment required)**

**16c. Other Restriction(s)**

- College
- Major
- Class
- Level

**16d. Registration Restriction(s) (non-codable)**

**17. Mark if course has fees**

**18. Mark if course is a selected topic course**

**19. Justification for Action**

Music department is cross-listing Indigenous and Alaska Native music classes with the Alaska Native Studies program to expand the department's offering in the area of world music.

**Initiator (faculty only)**

Christopher Sweeney

Initiator (TYPE NAME)

Approved  Disapproved

Dean/Director of School/College  Date

Approved  Disapproved

Undergraduate/Graduate Academic  Date

Approved  Disapproved

Board Chair  Date

Approved  Disapproved

Provost or Designee  Date
I. Date Initiated: April 22, 2014

II. Course Information

College/School: College of Arts and Sciences  
Department: Music  
Program: Music  
Course Title: Alaska Native Drum Making Techniques: Athabascan and Southeast Style  
Course Number: MUS A218A  
Credits: 3  
Contact Hours: 1+4  
Grading Basis: A-F  
Course Description: Studio course in which students learn the fundamentals of making hand held frame drums in the Athabascan and Southeastern Alaska Native style. Students will also study the living tradition of Alaska Native drum practices.

Cross Listed: Yes – with AKNS A218A  
Course Prerequisites: None  
Registration Restrictions: None  
Fees: Yes

III. Course Activities

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VIII. Suggested Text
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IX. Bibliography

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Course Action Request
University of Alaska Anchorage
Proposal to Initiate, Add, Change, or Delete a Course

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<th>Date of Coordination</th>
<th>Chair/Coordinator Contacted</th>
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<td>Maria Williams</td>
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</table>

Initiator Name (typed): MW
Initiator Signed Initials: ________ Date: __________

13b. Coordination Email Date: 4/18/14
submitted to Faculty Listserv: [uaa-faculty@lists.uaa.alaska.edu](mailto:uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison Date: 3/1/2014

14. General Education Requirement
Mark appropriate box:
- [ ] Oral Communication
- [ ] Written Communication
- [ ] Quantitative Skills
- [ ] Humanities
- [ ] Fine Arts
- [ ] Social Sciences
- [ ] Natural Sciences
- [ ] Integrative Capstone

15. Course Description (suggested length 20 to 50 words)
Studio course in which students learn the fundamentals of making hand held frame drums in the Inupiaq and Yup'ik Alaskan Indian style. Students will also study the living tradition of Alaska Native drum practices.

16a. Course Prerequisite(s) (list prefix and number or test code and score) n/a

16b. Co-requisite(s) (concurrent enrollment required)

16c. Automatic Restriction(s)

16d. Registration Restriction(s) (non-codable)

17. ☑ Mark if course has fees

18. ☐ Mark if course is a selected topic course

19. Justification for Action
Previously offered as a 290 Selected topics and it should become a permanent course offering

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I. Date Initiated
   April 22, 2014

II. Course Information
   College/School: College of Arts and Sciences
   Department: Alaska Native Studies
   Program: Alaska Native Studies
   Course Title: Alaska Native Drum Making Techniques: Inupiaq & Yup’ik Style
   Course Number: AKNS A218B
   Credits: 3
   Contact Hours: 1+4
   Grading Basis: A-F
   Course Description: Studio course in which students learn the fundamentals of making hand held frame drums in the Inupiaq and Yup’ik Alaska Native style. Students will also study the living tradition of Alaska Native drum practices.
   Cross Listed: Yes – with MUS A218B
   Course Prerequisites: None
   Registration Restrictions: None
   Fees: Yes

III. Course Activities
   Studio course in which students learn the basic construction techniques developed by Alaska Native cultures for single headed, hand held frame drums. The course will involve the process of preparing wood, and steaming the wood to bend into round frames, use of traditional and contemporary material for the drum heads. Students will apply the techniques and design principles to create their own drum. Students will also learn about the living traditions of Alaska Native drum practices.

IV. Course Level Justification
   This 200-level class provides skills employed in drum making.

V. Course Outline
   This studio style class focuses on the construction of a single-headed hand held frame drum, common to Inupiaq and Yup’ik peoples. Students will learn the basics, from cutting and stretching of the hides, to design work and painting. The frames will be made from a bentwood steaming process. Students will examine the different styles of hand held drums in Alaska and gain a basic understanding of the relationship of design and use to the Indigenous culture(s).

VI. Instructional Goals and Student Learning Outcomes
A. **Instructional Goals.**
The instructor will:

1. Provide historical information and cultural uses of drum making through lecture and hands-on learning, bringing the subject matter to a level within their comprehension.

2. Facilitate class discussion and hands-on learning using Indigenous techniques of steaming and bending wood for drum frames and knowledge of how to prepare material for stretching across the frame to make the drum heads.

3. Teach students to use new tools and create their own designs for the drum heads.

4. Provide interactions with guest lecturers who provide a high level of expertise in their art form to foster student learning and mentorship.

---

<p>| B. <strong>Student Learning Outcomes.</strong>  |</p>
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<thead>
<tr>
<th>Students will be able to:</th>
<th><strong>Assessment Method</strong></th>
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<tbody>
<tr>
<td>1. Demonstrate how to use a steam box and make a frame</td>
<td>Make a completed drum frame</td>
</tr>
<tr>
<td>2. Articulate the importance of traditional design(s) on drum heads</td>
<td>Class discussions, in-class exercises, and final design on the students drum</td>
</tr>
<tr>
<td>3. Demonstrate how to prepare material(s) to stretch over the drum frame to make a drum head</td>
<td>In-class exercises, and hands-on learning and final drum of the students making</td>
</tr>
<tr>
<td>4. Demonstrate that they have attained a basic understanding of how to make a frame drum</td>
<td>Final product of a drum, with drum head and painted design. Final class critique and discussion</td>
</tr>
</tbody>
</table>

---

VIII. **Suggested Text**
None required.

IX. **Bibliography**
Reading selections will include articles from a variety of sources. ISER, Alaskool, and the Alaska Native Knowledge Network will be utilized for various historical and current articles.
**Course Action Request**

**University of Alaska Anchorage**

Proposal to Initiate, Add, Change, or Delete a Course

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<th>1a. School or College</th>
<th>1b. Division</th>
<th>1c. Department</th>
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<td>AFAR Division of Fine Arts</td>
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<td>MUS</td>
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<td>List any programs or college requirements that require this course.</td>
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Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.aaa.alaska.edu/governance.

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<td>Maria Williams</td>
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<th>Date: 4/18/14</th>
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<td>submitted to Faculty Listserv:</td>
<td>(<a href="mailto:uaa-faculty@lists.uaa.alaska.edu">uaa-faculty@lists.uaa.alaska.edu</a>)</td>
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<td>Studio course in which students learn the fundamentals of making hand held frame drums in the Inupiaq and Yup'ik Alaskan Indian style. Students will also study the living tradition of Alaska Native drum practices.</td>
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<th>17. Mark if course has fees</th>
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<td>18. Mark if course is a selected topic course</td>
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<tr>
<th>19. Justification for Action</th>
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<tbody>
<tr>
<td>Music department is cross-listing Indigenous and Alaska Native music classes with the Alaska Native Studies program to expand the department's offering in the area of world music.</td>
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<table>
<thead>
<tr>
<th>Initiator (faculty only)</th>
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<tr>
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**Course Description**

Studio course in which students learn the fundamentals of making hand held frame drums in the Inupiaq and Yup'ik Alaskan Indian style. Students will also study the living tradition of Alaska Native drum practices.

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I. Date Initiated
   April 22, 2014

II. Course Information
    College/School: College of Arts and Sciences
    Department: Music
    Program: Music
    Course Title: Alaska Native Drum Making Techniques: Inupiaq & Yup’ik Style
    Course Number: MUS A218B
    Credits: 3
    Contact Hours: 1+4
    Grading Basis: A-F
    Course Description: Studio course in which students learn the fundamentals of making hand held frame drums in the Inupiaq and Yup’ik Alaska Native style. Students will also study the living tradition of Alaska Native drum practices.
    Cross Listed: Yes – with AKNS A218B
    Course Prerequisites: None
    Registration Restrictions: None
    Fees: Yes

III. Course Activities
    Studio course in which students learn the basic construction techniques developed by Alaska Native cultures for single headed, hand held frame drums. The course will involve the process of preparing wood, and steaming the wood to bend into round frames, use of traditional and contemporary material for the drum heads. Students will apply the techniques and design principles to create their own drum. Students will also learn about the living traditions of Alaska Native drum practices.

IV. Course Level Justification
    This 200-level class provides skills employed in drum making.

V. Course Outline
    This studio style class focuses on the construction of a single-headed hand held frame drum, common to Inupiaq and Yup’ik peoples. Students will learn the basics, from cutting and stretching of the hides, to design work and painting. The frames will be made from a bentwood steaming process. Students will examine the different styles of hand held drums in Alaska and gain a basic understanding of the relationship of design and use to the Indigenous culture(s).

VI. Instructional Goals and Student Learning Outcomes
A. Instructional Goals.
The instructor will:

<p>| | |</p>
<table>
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<tbody>
<tr>
<td>1.</td>
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<td>Facilitate class discussion and hands-on learning using Indigenous techniques of steaming and bending wood for drum frames and knowledge of how to prepare material for stretching across the frame to make the drum heads.</td>
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<td>3.</td>
<td>Teach students to use new tools and create their own designs for the drum heads.</td>
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<td>4.</td>
<td>Provide interactions with guest lecturers who provide a high level of expertise in their art form to foster student learning and mentorship.</td>
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B. Student Learning Outcomes.  
Students will be able to:  

<table>
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<tr>
<td>1.</td>
<td>Demonstrate how to use a steam box and make a frame</td>
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<td>2.</td>
<td>Articulate the importance of traditional design(s) on drum heads</td>
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<td>Demonstrate how to prepare material(s) to stretch over the drum frame to make a drum head</td>
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<td>4.</td>
<td>Demonstrate that they have attained a basic understanding of how to make a frame drum</td>
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VIII. Suggested Text  
None required.

IX. Bibliography
Reading selections will include articles from a variety of sources. ISER, Alaskool, and the Alaska Native Knowledge Network will be utilized for various historical and current articles.
**Course Action Request**  
University of Alaska Anchorage  
Proposal to Initiate, Add, Change, or Delete a Course

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<th>1c. Department</th>
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<td>AHUM Division of Humanities</td>
<td>AKNS</td>
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<td>List any programs or college requirements that require this course.</td>
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<td>Oral Communication, Written Communication, Quantitative Skills, Humanities, Social Sciences, Natural Sciences, Integrative Capstone</td>
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<tr>
<th>15. Course Description (suggested length 20 to 50 words)</th>
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<tr>
<td>An introduction to Alaska Native oral traditions—both the stories told by different Alaska Native cultures and the indigenous languages that convey those stories. Topics include the role of oral traditions in sharing knowledge and beliefs in Alaska Native cultures, the importance of indigenous languages in conveying ideas that are difficult to translate outside the original language, the translation of oral traditions into recorded or printed media, and contemporary settings where oral traditions continue.</td>
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<table>
<thead>
<tr>
<th>16c. Co-requisite(s) (concurent enrollment required)</th>
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<tbody>
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<table>
<thead>
<tr>
<th>16d. Other Restriction(s)</th>
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<tbody>
<tr>
<td>College, Major, Class, Level</td>
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<table>
<thead>
<tr>
<th>17. Mark if course has fees</th>
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<tbody>
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<table>
<thead>
<tr>
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<thead>
<tr>
<th>19. Justification for Action</th>
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<tbody>
<tr>
<td>Previously offered as a 290 Selected topics course, it is time to make it a permanent course.</td>
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<table>
<thead>
<tr>
<th>Initiator (faculty only)</th>
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</thead>
<tbody>
<tr>
<td>Maria Williams</td>
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<table>
<thead>
<tr>
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<table>
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<tr>
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<table>
<thead>
<tr>
<th>21. General Education Requirement</th>
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<table>
<thead>
<tr>
<th>22. Course Description (suggested length 20 to 50 words)</th>
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<th>51. Mark if course has fees</th>
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<table>
<thead>
<tr>
<th>52. Mark if course is a selected topic course</th>
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<table>
<thead>
<tr>
<th>53. Justification for Action</th>
</tr>
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<tbody>
<tr>
<td></td>
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</table>
I. Date Initiated: April 22, 2014

II. Course Information
   College/School: College of Arts and Sciences
   Department: Alaska Native Studies
   Program: Alaska Native Studies
   Course Title: Oral Traditions of Alaska Native People
   Course Number: AKNS A230
   Credits: 3
   Contact Hours: 3 + 0
   Grading Basis: A-F
   Course Description: An introduction to Alaska Native oral traditions—both the stories told by different Alaska Native cultures and the indigenous languages that convey those stories. Topics include the role of oral traditions in sharing knowledge and beliefs in Alaska Native cultures, the importance of indigenous languages in conveying ideas that are difficult to translate outside the original language, the translation of oral traditions into recorded or printed media, and contemporary settings where oral traditions continue.
   Course Prerequisites: None
   Registration Restrictions: None
   Fees: Yes

III. Course Activities
   In general, this course will involve a combination of:
   A. Readings
   B. Audio and video recordings of oral tradition
   C. Discussions
   D. Response papers
   E. Guest speakers
   F. Student presentations on oral traditions

IV. Course Level Justification
   This 200-level course is an introductory survey course of Alaska Native oral traditions and does not require background knowledge.

V. Course Evaluation
   Grades are based on participation, class exercises, student presentations and response papers.

VI. Course Outline
As an introductory course to Alaska Native oral traditions, students will study the stories of different Alaska Native cultures and gain an understanding of the unique features of the original Indigenous language that conveyed those stories. Topics include:

A. Athabascan oral traditions  
B. Yup’ik oral traditions  
C. Inupiaq oral traditions  
D. Unangax oral traditions  
E. Alutiiq oral traditions  
F. Eyak oral traditions  
G. Tlingit oral traditions  
H. Haida oral traditions  
I. Tsimshian oral traditions  
J. The history of language loss and language revitalization  
K. Translation of oral traditions into audio, video and print recordings  
L. Contemporary settings for Alaska Native oral tradition

VII. Instructional Goals and Student Learning Outcomes

A. Instructional Goals.  
The instructor will:

1. Introduce students to oral traditions of Alaska Native peoples, including the stories and languages used by different Alaska Native cultures.

2. Engage students through course materials and discussion, bringing the subject matter to a level within their comprehension.

3. Facilitate student interaction with guest speakers who are knowledgeable about Alaska Native oral traditions.

4. Aid students in the development of a final research project that records or investigates an oral tradition of their choosing.

B. Student Learning Outcomes.  
Students will be able to:  

<table>
<thead>
<tr>
<th>Students will be able to:</th>
<th>Assessment Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Discuss the diversity of oral traditions and languages of Alaska Native people.</td>
<td>Class discussions, student presentations, response papers</td>
</tr>
<tr>
<td>2. Analyze the differences between oral and written traditions.</td>
<td>Class discussions, student presentations, response papers</td>
</tr>
<tr>
<td>3. Articulate the importance of Indigenous languages in conveying knowledge and the efforts to revitalize Indigenous languages.</td>
<td>Class discussions, presentations</td>
</tr>
</tbody>
</table>
4. Analyze the translation issues inherent in recording oral traditions in print, audio or video formats.

5. Present an oral tradition of their choice and articulate its relationship to issues studied in class over the course of the semester.

Class discussions, presentations

Final project, presentation

VIII. Suggested Text

There is no single text for this course. Instead, students will read from a variety of sources and consult audio and video recordings of Alaska Native tradition bearers.

IX. Selected Bibliography


Course Action Request
University of Alaska Anchorage
Proposal to Initiate, Add, Change, or Delete a Course

<table>
<thead>
<tr>
<th>1a. School or College</th>
<th>1b. Division</th>
<th>1c. Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS CAS</td>
<td>AFAR Division of Fine Arts</td>
<td>Theatre and Dance</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Course Prefix</th>
<th>3. Course Number</th>
<th>4. Previous Course Prefix &amp; Number</th>
<th>5a. Credits/CEUs</th>
<th>5b. Contact Hours (Lecture + Lab)</th>
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<tbody>
<tr>
<td>DNCE</td>
<td>A170</td>
<td>N/A</td>
<td>3</td>
<td>(3+0)</td>
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</table>

6. Complete Course Title
Dance Appreciation

Abbreviated Title for Transcript (30 character)

7. Type of Course
☑ Academic  ☐ Preparatory/Development  ☐ Non-credit  ☐ CEU  ☐ Professional Development

8. Type of Action:
☐ Add  ☑ Change  ☐ Delete

If a change, mark appropriate boxes:
☐ Prefix  ☐ Course Number  ☐ Credits  ☐ Contact Hours  ☐ Title  ☐ Repeat Status
☐ Grading Basis  ☐ Cross-Listed/Stacked
☒ Course Description  ☐ Course Prerequisites  ☐ Test Score Prerequisites  ☐ Co-requisites
☐ Automatic Restrictions  ☐ Registration Restrictions  ☐ Class  ☐ Level  ☐ College  ☐ Major
☒ Other Course Content Guide (please specify)

9. Repeat Status No  # of Repeats  Max Credits

10. Grading Basis
☑ A-F  ☐ P/NP  ☐ NG

11. Implementation Date
From: Fall/2014  To: /9999

12. ☐ Cross Listed with  Stacked with

Cross-Listed Coordination Signature

13a. Impacted Courses or Programs:
List any programs or college requirements that require this course.
Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

<table>
<thead>
<tr>
<th>Impacted Program/Course</th>
<th>Date of Coordination</th>
<th>Chair/Coordinator Contacted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theatre and Dance: 136-138</td>
<td>2/4/14</td>
<td>Tom Skore</td>
</tr>
<tr>
<td>2.</td>
<td></td>
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<tr>
<td>3.</td>
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</table>

Initiator Name (typed): Jill Flanders Crosby  Initiator Signed Initials: _________  Date: __________

13b. Coordination Email
Date: 2/4/14
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison
Date: 2/4/14

14. General Education Requirement
Mark appropriate box:
☐ Oral Communication  ☑ Written Communication  ☐ Quantitative Skills  ☐ Humanities
☐ Fine Arts  ☐ Social Sciences  ☐ Natural Sciences  ☐ Integrative Capstone

15. Course Description (suggested length 20 to 50 words)
Develops an appreciation of dance for observer and participants through readings, lectures, videos, writing exercises, live performances and movement and discussion sessions. Explores dance in social and cultural contexts and as an aesthetic and kinesthetic experience. Dances across culture examined along with the development of dance as an art form in Europe and America. A lecture course with 4-7 dance studio movement sessions per semester.

16a. Course Prerequisite(s) (list prefix and number or test code and score)

16b. Co-requisite(s) (concurrent enrollment required)

16c. Automatic Restriction(s)
☐ College  ☐ Major  ☐ Class  ☐ Level

16d. Registration Restriction(s) (non-codable)

17. ☒ Mark if course has fees

18. ☐ Mark if course is a selected topic course

19. Justification for Action
This is a required update to the Course Content Guide for Dance Appreciation.

Initiator (faculty only)
Jill Flanders Crosby

Initiator (TYPE NAME)

☑ Approved  ☐ Disapproved
Dean/Director of School/College  Date

☑ Approved  ☐ Disapproved
Department Chair  Date

☑ Approved  ☐ Disapproved
Undergraduate/Graduate Academic Board Chair  Date

☑ Approved  ☐ Disapproved
Provost or Designee  Date
I. Date of Initiation: Fall, 2014

II. Course Information:
A. College or School: CAS
B. Course Subject: Theatre & Dance
C. Course Number: A170
D. Number of Credits: 3.0 (3+0)
E. Course Title: Dance Appreciation
F. Grading Basis: A-F
G. Course Description: Develops an appreciation of dance for observer and participants through readings, lectures, videos, writing exercises, live performances and movement and discussion sessions. Explores dance in social and cultural contexts and as an aesthetic and kinesthetic experience. Dances across culture examined along with the development of dance as an art form in Europe and America. A lecture course with 4-7 dance studio movement sessions per semester.
H. Course Prerequisites: N/A
I. Co-Requisite: N/A
J. Restrictions: None
K. Fees: Yes

III. Instructional Goals and Student Learning Outcomes:
A. Instructional Goals. The Instructor will:
   1) Present the fundamentals of defining, viewing and critiquing dance.
   2) Present the roles and functions of dance in culture and society through select theoretical lenses.
   3) Present the range of concert and performance dance forms and styles in an historical progression.
   4) Discuss and define each area of the various performance dance forms and styles.
   5) Introduce the basics of preparing and presenting a research report inclusive of citation style guides and analysis of sources.

B. Student Learning Outcomes. The students will be able to:

<table>
<thead>
<tr>
<th>Student Learning Outcomes</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Identify and apply the fundamentals of defining, viewing and critiquing dance.</td>
<td>1) Group discussions and oral and written presentations, tests, movement observation chart, dance review.</td>
</tr>
<tr>
<td>2) Identify and describe the roles and functions of dance.</td>
<td>2) Group discussions and oral and written presentations, homework, test essays using select</td>
</tr>
</tbody>
</table>
III. Course Evaluation
Students will be evaluated based on quizzes, in-class assignments, homework, dance review, response paper, take home tests and final research report.

IV. Course Level Justification
This course is an introductory GER survey course. It fulfills the BA Theatre Major with a Dance Concentration and the dance minor.

V. Topical Course Outline
1. What is dance, can we define dance and why do people dance?
2. How do we see, talk and write about dance? What is a dance critique?
3. How do we research dance? Evaluate sources and understand how to cite and create a bibliography.
4. Dance and religion across culture and time.
5. Social dance across culture and time.
7. Evolution of court dance into ballet.
8. Romanticism.
9. Turn of the 20th century modernism in concert dance and Native American dance.
10. Mid-modernism: ballet, folk-performance, American and European contemporary dance, African-American dance and other contemporary forms across cultures as chosen by the instructor.
11. Post-modernism from America and Europe to post-colonial Africa, Asia and Asia-Pacific as chosen by the instructor.
12. Current popular Culture forms as chosen by the instructor.
VII. Suggested Texts


VIII. Bibliography


* Seminal textbook in the field
VIDEOGRAPHY:

The Alvin Ailey American Dance Theatre – ABC Video Enterprises

Balanchine: Jewels – The Balanchine Library

Balanchine: Tzigane, Andante from Divertimento No 15, The Four Temperments – The Balanchine Library

Bob Fosse: A Dancer Remembered – PBS Library

Butoh Dancing on the Edge of Darkness – Michael Blackwood Productions


Denishawn: The Birth of Modern Dance – New Jersey Center Dance Collective

Free to Dance – PBS Library

Giselle – Kultur Video

Honi Coles & Cholly Atkins: Over the Top to Bebop – Creative Arts Television Archive

Humphrey: The Shakers – Dance Horizon Video

Isadora Duncan – Dance Horizons Video

La Sylphide – PBS Library

Martha Graham, A Dancer Revealed – Kultur

Paris Dances Diagalev – Elektra Nonesuch Dance Collection

Road to the Stamping Ground – Home Visions Films

Sevillanos (Flamenco) – Connoisseur Meridian Films

Stormy Weather – Fox Video

Other selections as per instructor’s choice and or personal fieldwork tapes/DVDs as available.
## Course Action Request

**University of Alaska Anchorage**

**Proposal to Initiate, Add, Change, or Delete a Course**

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### 6. Complete Course Title

**Introduction to Theatrical Design**

**Intro to Theatrical Design**

Abbreviated Title for Transcript (30 character)

### 7. Type of Course

- ☒ Academic
- ❏ Preparatory/Development
- ❏ Non-credit
- ❏ CEU
- ❏ Professional Development

### 8. Type of Action:

- ☒ Add
- ❏ Change
- ❏ Delete

If a change, mark appropriate boxes:

- ☐ Prefix
- ☐ Credits
- ☐ Title
- ☐ Grading Basis
- ☐ Course Description
- ☐ Test Score Prerequisites
- ☐ Automatic Restrictions
- ☐ Other

### 9. Repeat Status No

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### 10. Grading Basis

- ☒ A-F
- ☐ P/NP
- ☐ NG

### 11. Implementation Date

- From: Fall/2014
- To: 9999

### 12. Cross Listed with

- ☐ Stack with

Cross-Listed Coordination Signature

### 13a. Impacted Courses or Programs

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<td>Chair/Coordinator Contacted</td>
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<tr>
<td>1. Department of Theatre Dance; 136-138</td>
<td>4 February 2014</td>
<td>Tom Skore</td>
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Initiator Name (typed): **Colleen Metzger**

Initiator Signed Initials: _________ Date: __________

### 13b. Coordination Email

submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

Date: 4 February 2014

### 13c. Coordination with Library Liaison

Date: 4 February 2014

### 14. General Education Requirement

Mark appropriate box:

- ☐ Oral Communication
- ☐ Written Communication
- ☐ Quantitative Skills
- ☐ Humanities
- ☐ Fine Arts
- ☐ Social Sciences
- ☐ Natural Sciences
- ☐ Integrative Capstone

### 15. Course Description

(suggested length 20 to 50 words)

Introduces the basic elements of design and color theory, combined with an overview of figure drawing, rendering techniques, and script analysis.

### 16a. Course Prerequisite(s)

(list prefix and number or test code and score)

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</tbody>
</table>

### 16b. Co-requisite(s)

(concurrent enrollment required)

N/A

### 16c. Automatic Restriction(s)

<p>| | |</p>
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</tbody>
</table>

### 16d. Registration Restriction(s)

(non-codable)

N/A

### 17. Mark if course has fees

### 18. Mark if course is a selected topic course

### 19. Justification for Action

This new course better facilitates student preparation to move into more advanced Theatrical Design courses.

Initiator (faculty only)

**Colleen Metzger**

Initiator (TYPE NAME) Date

Approved 

Disapproved

Dean/Director of School/College Date

Approved Undergraduate/Graduate Academic Date

Disapproved Board Chair Date

Approved Provost or Designee Date
I. **Date of Initiation:** Fall, 2014

II. **Course Information:**
A. College or School: CAS
B. Course Subject: Theatre & Dance
C. Course Number: A132
D. Number of Credits: 3.0 (2+2)
E. Course Title: Introduction to Theatrical Design
F. Grading Basis: A-F
G. Course Description: Introduces the basic elements of design and color theory, combined with an overview of figure drawing, rendering techniques, and script analysis.
H. Course Prerequisites: N/A
I. Co-Requisite: N/A
J. Restrictions: None
K. Fees: Yes

III. **Instructional Goals and Student Learning Outcomes:**
A. Instructional Goals. The Instructor will:
   1) Present the fundamentals of theatrical design and the elements of design.
   2) Introduce color theory.
   3) Discuss and define each area of the design process.
   4) Introduce the basics of doing a script and character analysis.
   5) Present basic drawing techniques, including figure drawing and scenic rendering.
   6) Introduce theatrical research methods.

B. Student Learning Outcomes. The students will be able to:

<table>
<thead>
<tr>
<th>Student Learning Outcomes</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Identify the fundamental steps of the design process and identify and apply the elements of design.</td>
<td>1) Quizzes</td>
</tr>
<tr>
<td>2) Understand and utilize color blending.</td>
<td>2) Application on projects Instructor feedback</td>
</tr>
<tr>
<td>3) Describe each area of the design process and explain the importance of each.</td>
<td>3) Classroom discussion Application on projects Instructor feedback</td>
</tr>
</tbody>
</table>
IV. Course Evaluation
Students will be evaluated based on writing script and character analyses, keeping a weekly sketchbook, completing exploratory costume, scenic, lighting, and sound designs based on various stimuli, and completing a theatrical research project.

V. Course Level Justification
This is a required course for the BA in Theatre. Students need a basic knowledge of theatrical design to advance into upper division design courses.

VI. Topical Course Outline
1. Principles of design
2. What is a set? What is a costume?
3. Elements of design
4. Controlling the elements of design
5. Color Theory
6. Interpreting the script and the characters
7. Developing a concept
8. Collaboration with the other design artists
9. Developing line
10. Sketching the human figure
11. Sketching scenic elements
12. Use of light and shadow to create dimension
13. Rendering techniques
14. Theatrical research methods

VII. Bibliography


# Course Action Request

University of Alaska Anchorage
Proposal to Initiate, Add, Change, or Delete a Course

<table>
<thead>
<tr>
<th>1a. School or College</th>
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</table>

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<tr>
<th>2. Course Prefix</th>
<th>3. Course Number</th>
<th>4. Previous Course Prefix &amp; Number</th>
<th>5a. Credits/CEUs</th>
<th>5b. Contact Hours (Lecture + Lab)</th>
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<tbody>
<tr>
<td>THR</td>
<td>A141</td>
<td>N/A</td>
<td>3</td>
<td>(2+2)</td>
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</table>

## Complete Course Title

Stagecraft I

Abbreviated Title for Transcript (30 character)

<table>
<thead>
<tr>
<th>6. Type of Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>x Academic</td>
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</tbody>
</table>

## Course Number Information

<table>
<thead>
<tr>
<th>7. Type of Action:</th>
<th>Add</th>
<th>x Change</th>
<th>Delete</th>
</tr>
</thead>
</table>

## Course Description

Workshop in principles and techniques of contemporary theatrical production including technical direction, drafting, scenery construction and rigging. Special Note: This course includes a Lab.

## Course Prerequisite(s)

THR A131 with a minimum grade of C

## General Education Requirement

Mark appropriate box:

- Oral Communication
- Written Communication
- Quantitative Skills
- Humanities
- Fine Arts
- Social Sciences
- Natural Sciences
- Integrative Capstone

## Course Description (suggested length 20 to 50 words)

Workshop in principles and techniques of contemporary theatrical production including technical direction, drafting, scenery construction and rigging. Special Note: This course includes a Lab.

## Course Prerequisite(s)

THR A131 with a minimum grade of C

## Course Description

Workshop in principles and techniques of contemporary theatrical production including technical direction, drafting, scenery construction and rigging. Special Note: This course includes a Lab.
I. Date of Initiation: Fall, 2014

II. Course Information:
A. College or School: CAS
B. Course Subject: Theatre
C. Course Number: A141
D. Number of Credits: 3.0 (2+2)
E. Course Title: Stagecraft I
F. Grading Basis: A-F
G. Course Description: Workshop in principles and techniques of contemporary theatrical production including technical direction, drafting, scenery construction and rigging. Special Note: This course includes a Lab.
H. Course Prerequisites: THR A131 with a minimum grade of C
I. Co-requisite: None
J. Restrictions: None
K. Fees: Yes

III. Instructional Goals and Student Learning Outcomes:
A. Instructional Goals. The Instructor will:
   1) Present the fundamentals of stagecraft and introduce appropriate vocabulary for theatre production and entertainment industry.
   2) Introduce drafting and discuss drafting technique.
   3) Demonstrate the proper techniques for safely working in the Scene Shop, and discuss basic skills in working with rigging equipment.
   4) Demonstrate proper scenic construction technique.
   5) Discuss shop drawings and how to correctly create them.

B. Student Learning Outcomes. The students will be able to:

| 1. Identify the fundamentals of stagecraft. | 1. Quizzes |
| 2. Identify and discuss proper hand-drafting technique. | 2. Class discussion, application on design projects and instructor feedback |
| 3. Demonstrate an understanding of how to work in the scenery construction shop. | 3. Instructor feedback during applied lab hours |
| 4. Demonstrate an understanding of shop drawings and how to complete them. | 4. Completed drafting projects |
| 5. Discuss the proper technique of rigging for the theatre. | 5. Classroom discussion |
| 6. Identify and discuss the process of | 6. Quizzes and |
IV. Course Evaluation

Students will be evaluated based on their performance in a series of exams and projects in each area of the course material along with the completion of a special project in the area of stagecraft.

V. Course Level Justification

This course provides the necessary skills and background required before the students can take upper division design courses required for a BA in Theatre.

VI. Topical Course Outline

1. Basic principles of theatre safety and stagecraft
2. Introduction to drafting
3. Graphic standards and lettering
4. Tool use and geometric construction
5. Advanced geometric construction
6. Dimensions and notes
7. Introduction to drafting shop drawings
8. Shop tools and tool safety
9. Advanced shop tools and applications
10. Introduction to the fly system and fly system mechanics
11. Advanced rigging and rigging applications
12. Discuss traditional soft scenery, modern hard scenery, and three-dimensional non-traditional scenery
13. Tech tables and equipment set-up
14. Hands-on work on special projects in stagecraft

VII. Suggested Text

VIII. Bibliography


# Course Action Request

**University of Alaska Anchorage**  
Proposal to Initiate, Add, Change, or Delete a Course

<table>
<thead>
<tr>
<th>1a. School or College</th>
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<th>5a. Credits/CEUs</th>
<th>5b. Contact Hours (Lecture + Lab)</th>
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<tr>
<td>THR</td>
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<tr>
<td>Scene Design</td>
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<th>7. Type of Course</th>
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<tbody>
<tr>
<td>☑ Academic</td>
<td>☐ Preparatory/Development</td>
<td>☐ Non-credit</td>
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| 8. Type of Action: | ☐ Add | ☑ Change | ☐ Delete |

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<td>☐ Course Number</td>
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<tr>
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<td>☐ Contact Hours</td>
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<tr>
<td>☐ Title</td>
<td>☐ Repeat Status</td>
</tr>
<tr>
<td>☐ Grading Basis</td>
<td>☐ Cross-Listed/Stacked</td>
</tr>
<tr>
<td>☑ Course Description</td>
<td>☐ Course Prerequisites</td>
</tr>
<tr>
<td>☐ Test Score Prerequisites</td>
<td>☐ Co-requisites</td>
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<td>☐ Registration Restrictions</td>
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<td>☐ Class</td>
<td>☐ Major</td>
</tr>
<tr>
<td>☐ Level</td>
<td>☐ General Education Requirement</td>
</tr>
<tr>
<td>☐ College</td>
<td>☐ Other Course Content Guide (please specify)</td>
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<tr>
<th>9. Repeat Status No</th>
<th># of Repeats</th>
<th>Max Credits</th>
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| 10. Grading Basis | ☑ A-F | ☐ P/NP | ☐ NG |

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<th>11. Implementation Date</th>
<th>semester/year</th>
<th>From:</th>
<th>To:</th>
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<tbody>
<tr>
<td></td>
<td>Fall /2014</td>
<td></td>
<td>/9999</td>
</tr>
</tbody>
</table>

| 12. ☐ Cross Listed with | ☐ Stacked with | Cross-Listed Coordination Signature |

| 13a. Impacted Courses or Programs: | List any programs or college requirements that require this course.  
Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at [www.uaa.alaska.edu/governance](http://www.uaa.alaska.edu/governance).

<table>
<thead>
<tr>
<th>Impacted Program/Course</th>
<th>Date of Coordination</th>
<th>Chair/Coordinator Contacted</th>
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</thead>
<tbody>
<tr>
<td>1. Department of Theatre and Dance; 136 - 138</td>
<td>2/4/14</td>
<td>Tom Skore</td>
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<tr>
<td>2.</td>
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<table>
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<tr>
<th>Initiator Name (typed):</th>
<th>Initiator Signed Initials:</th>
<th>Date:</th>
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<tbody>
<tr>
<td>Colleen Metzger</td>
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</tr>
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</table>

<table>
<thead>
<tr>
<th>13b. Coordination Email</th>
<th>Date:</th>
<th>2/4/14</th>
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</thead>
<tbody>
<tr>
<td>submitted to Faculty Listserv:</td>
<td>(<a href="mailto:uaa-faculty@lists.uaa.alaska.edu">uaa-faculty@lists.uaa.alaska.edu</a>)</td>
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| 13c. Coordination with Library Liaison | Date: | 2/4/14 |

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<th>14. General Education Requirement</th>
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<td>Oral Communication</td>
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<td>Fine Arts</td>
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<td>Humanities</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>☐</td>
<td>Integrative Capstone</td>
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</table>

| 15. Course Description (suggested length 20 to 50 words) | Fundamental principles of design for the stage, including drafting, rendering, theory, analysis, and practice. Special Note: This course includes a Lab. |

<table>
<thead>
<tr>
<th>16a. Course Prerequisite(s) (list prefix and number or test code and score)</th>
<th>(THR A131 &amp; THR A132) with a minimum grade of C</th>
</tr>
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</table>

| 16b. Co-requisite(s) (concurrent enrollment required) | N/A |

<table>
<thead>
<tr>
<th>16c. Automatic Restriction(s)</th>
<th>College</th>
<th>Major</th>
<th>Class</th>
<th>Level</th>
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</thead>
</table>

| 16d. Registration Restriction(s) (non-codable) | N/A |

| 17. ☐ Mark if course has fees | 18. ☐ Mark if course is a selected topic course |

| 19. Justification for Action | Updating prerequisites by adding the language "with a minimum grade of C" in order to align with all upper division performance and technical classes. Revising student learning outcomes. |

<table>
<thead>
<tr>
<th>Initiator (faculty only)</th>
<th>Date</th>
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<th>Disapproved</th>
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<tr>
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<th>Disapproved</th>
<th>Dean/Director of School/College</th>
<th>Date</th>
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<th>Undergraduate/Graduate Academic</th>
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<td>Board Chair</td>
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<th>Provost or Designee</th>
<th>Date</th>
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<tr>
<th>Initiate (faculty only)</th>
<th>Date</th>
<th>Approved</th>
<th>Disapproved</th>
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</thead>
</table>

266
Course Content Guide
University of Alaska Anchorage
THR A243
Scene Design

I. Date of Initiation: Fall, 2014

II. Course Information:
A. College or School: CAS
B. Course Subject: Theatre
C. Course Number: A243
D. Number of Credits: 3+0
E. Course Title: Scene Design
F. Grading Basis: A-F
G. Course Description: Fundamental principles of design for the stage, including drafting, rendering, theory, analysis, and practice. Special Note: This course includes a Lab.
H. Course Prerequisites: (THR A131 and THR A132) with a minimum grade of C
I. Co-requisite: None
J. Restrictions: None
K. Fees: Yes

III. Instructional Goals and Student Learning Outcomes:
A. Instructional Goals. The Instructor will:
   1. Define and discuss the theory of scenic design for a theatrical production.
   2. Discuss common challenges and practical solutions in scenic design.
   3. Present industry standards of proper design communication and presentation.
   4. Identify and describe how to reinterpret dramatic literature as an artistic expression intended for the stage.

B. Student learning Outcomes.

<table>
<thead>
<tr>
<th>The students will be able to:</th>
<th>Assessed by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Define and discuss the theory of scenic design for a theatrical production.</td>
<td>1. Quizzes and instructor feedback</td>
</tr>
<tr>
<td>2. Identify and describe the challenges and offer solutions within the scenic design.</td>
<td>2. Renderings, models and conceptual designs</td>
</tr>
<tr>
<td>3. Identify industry standards of proper design communication.</td>
<td>3. Classroom discussion and application on final research design</td>
</tr>
<tr>
<td>4. Analyze a piece of dramatic</td>
<td>4. Research design</td>
</tr>
</tbody>
</table>
literature and reinterpret that analysis towards an effective set design. presentation and implementation in a box set

IV. Course Evaluation

Students will be evaluated based on successful and timely completion of tests and practical projects. Students will also be evaluated on a set design for a piece of dramatic literature.

V. Course Level Justification

Topics covered in this class are advanced and specialized beyond the subject matter covered in the basic introduction to design and technical theatre classes, THR A131 and THR A132.

VI. Topical Course Outline

1. Basic principles of design
2. Set design within the entertainment industry
3. History of contemporary set design
4. Survey of western architecture
5. Perspective rendering for a set design
6. Challenges for designing in different conventions
7. Basic script analysis
8. Reinterpreting a script visually
9. Researching a design
10. Basic model making
11. Color Theory
12. Drafting for a theatrical design
13. Developing a design concept

VII. Suggested Text


VIII. Bibliography


# Course Action Request

**University of Alaska Anchorage**

Proposal to Initiate, Add, Change, or Delete a Course

<table>
<thead>
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<th>5a. Credits/CEUs</th>
<th>5b. Contact Hours (Lecture + Lab)</th>
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<tr>
<td>THR</td>
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<tr>
<th>6. Complete Course Title</th>
<th>Abbreviated Title for Transcript (30 character)</th>
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<tbody>
<tr>
<td>Costume Design</td>
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<tr>
<th>7. Type of Course</th>
<th>8. Type of Action:</th>
<th>9. Repeat Status No</th>
<th>10. Grading Basis</th>
<th>11. Implementation Date</th>
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<td>A-F</td>
<td>semester/year</td>
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<td>Preparatory/Development</td>
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<td>P/NP</td>
<td>From: Fall /2014</td>
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<td>Non-credit</td>
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<td>NG</td>
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<tr>
<th>12. Cross Listed with</th>
<th>Stacked with</th>
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<td></td>
<td>Cross-Listed Coordination Signature</td>
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<thead>
<tr>
<th>13a. Impacted Courses or Programs:</th>
<th>13b. Coordination Email</th>
<th>13c. Coordination with Library Liaison</th>
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<tbody>
<tr>
<td>List any programs or college requirements that require this course.</td>
<td>Date: 4 February 2014</td>
<td>Date: 4 February 2014</td>
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**Initiator Name (typed): Colleen Metzger**

**Initiator Signed Initials:**

**Date:**

14. General Education Requirement

**Mark appropriate box:**

- [ ] Oral Communication
- [ ] Written Communication
- [ ] Quantitative Skills
- [ ] Humanities
- [ ] Fine Arts
- [ ] Social Sciences
- [ ] Natural Sciences
- [ ] Integrative Capstone

15. Course Description (suggested length 20 to 50 words)

- Basic principles of costume design with emphasis on research and rendering techniques. Overall study of costume and fashion history and its relation to theatre productions and designs.

16a. Course Prerequisite(s) (list prefix and number or test code and score)

- THR A132 with minimum grade C

16b. Co-requisite(s) (concurrent enrollment required)

- N/A

16c. Automatic Restriction(s)

- [x] College
- [ ] Major
- [ ] Class
- [ ] Level

16d. Registration Restriction(s) (non-codable)

- N/A

17. Mark if course has fees

- [x] No

18. Mark if course is a selected topic course

- [ ] Yes

19. Justification for Action

- Altering title to accurately represent what is taught in the course. And adjusting the contact hours to suit the new class structure, updating prerequisites by adding the language “with a minimum grade of C” in order to align with all upper division performance and technical classes.

**Initiator (faculty only) (TYPE NAME): Colleen Metzger**

**Initiator Signed Initials:**

**Date:**

**Approved**

**Dean/Director of School/College**

**Date:**

**Approved**

**Undergraduate/Graduate Academic**

**Date:**

**Approved**

**Board Chair**

**Date:**

**Approved**

**Provost or Designee**

**Date:**

270
Course Content Guide  
University of Alaska Anchorage  
THR A257  
Costume Design

I. Date of Initiation: Fall, 2014

II. Course Information: 
A. College or School: CAS  
B. Course Subject: Theatre and Dance  
C. Course Number: A257  
D. Number of Credits: 3.0 (3+0)  
E. Course Title: Costume Design  
F. Grading Basis: A-F  
G. Course Description: Basic principles of costume design with emphasis on research and rendering techniques. Overall study of costume and fashion history and its relation to theatre productions and designs.  
H. Course Prerequisites: THR A132 with minimum grade of C  
I. Co-Requisite: N/A  
J. Restrictions: None  
K. Fees: Yes

III. Instructional Goals and Student Outcomes:  
A. Instructional Goals. The Instructor will:  
   1) Present the fundamentals of costume design.  
   2) Discuss and define each area of the design process.  
   3) Define and describe how to analyze a character in a play and make choices about the appropriate costume, including color, line, and style.  
   4) Present an overview of clothing history with an emphasis on research materials in the areas of fashion and art of each period.  
   5) Present basic figure drawing and costume rendering techniques.

B. Student Learning Outcomes. The students will be able to:

<table>
<thead>
<tr>
<th>Student Learning Outcomes</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Identify the fundamentals of costume design.</td>
<td>1) Quizzes</td>
</tr>
</tbody>
</table>
| 2) Identify and describe each area of the design process and explain the importance of each. | 2) Class Discussion  
Application on Design Projects  
Instructor Feedback |
| 3) Analyze each character of a play and design costumes based on that analysis.            | 3) Class Discussion  
Application on Design Projects  
Instructor Feedback |
4) Relate knowledge of period styles to artists and plays of each specific period.

5) Demonstrate basic figure drawing and rendering techniques.

4) Costume History Presentation
Application on Historical Design Project

5) Graded Sketchbook
Instructor Feedback

IV. Course Evaluation
Students will be evaluated based on finished renderings inspired by various creative stimuli and two full sets of costume design renderings based on assigned plays, complete with swatches, costume plots, action charts, and character analyses.

V. Course Level Justification
This 200-level design course builds on the skills gained in THR 132.

VI. Topical Course Outline
1. Basic principles of costume design
2. Meaning of the costume
3. Interpreting the script and the characters
4. Developing a concept
5. Collaboration with the other design artists
6. Developing line
7. Basic elements of design
8. Character Analysis
9. Color
10. Period styles
11. Sketching the human figure
12. Use of light and shadow to create dimension
13. Rendering techniques

VII. Suggested Text


VIII. Bibliography


## Course Action Request

**University of Alaska Anchorage**

**Proposal to Initiate, Add, Change, or Delete a Course**

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<thead>
<tr>
<th>1a. School or College</th>
<th>1b. Division</th>
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### Impacted Program/Course

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### General Education Requirement

Mark appropriate box:

- Oral Communication
- Written Communication
- Quantitative Skills
- Humanities
- Fine Arts
- Social Sciences
- Natural Sciences
- Integrative Capstone

### Course Description

*Suggested length 20 to 50 words*

Improvisational technique created by Sanford Meisner to help actors feel, rather than think, their way through a scene by responding to inner impulses. Improvisational work will carry over into scene study by the end of the semester.

### Course Prerequisite(s) (list prefix and number or test code and score)

- THR A121 with a minimum grade of C

### Co-requisite(s) (concurrent enrollment required)

N/A

### Registration Restriction(s) (non-codable)

N/A

### Mark if course is a selected topic course

- No

### Justification for Action

Updating prerequisites by adding the language "with a minimum grade of C" in order to align with all upper division performance and technical classes. Revising student learning outcomes.

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<th>Date</th>
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[274]
I. **Date of Initiation:** Fall, 2014

II. **Course Information:**
A. College or School: CAS
B. Course Subject: Theatre
C. Course Number: THR A321
D. Number of Credits: 3.0 (2+3)
E. Course Title: Meisner Acting Technique
F. Grading Basis: A-F
G. Course Description: Improvisational techniques created by Sanford Meisner to help actors feel, rather than think, their way through a scene by responding to inner impulses. Improvisational work will carry over into scene study toward the end of the semester.
H. Course Prerequisites: THR A121 with a minimum grade of C
I. Restrictions: None
J. Fees: None

III. **Instructional Goals and Student Learning Outcomes**
A. Instructional goals. The instructor will:

1) Discuss Stanislavski and his influence on the development of American actor training and what is commonly referred to as the Method.

2) Employ a series of improvisational exercises designed to remove all intellectualization from the acting process so the actor is feeling their way through a scene, rather than thinking their way through a scene (gut versus head).

3) Reinforce the important distinctions to be made between the character’s thought process and the actor’s thought process and their relevance to the performance.

4) Challenge students to take emotional risks, expand their imaginative possibilities, and tap into their emotional resources on their deepest level.

B. Student learning outcomes.
Students will be able to:

1) Speak about various approaches stemming from Stanislavski’s original system.
   - Assessment: Written assignments; class discussions

2) Demonstrate their knowledge of the Meisner approach through direct application in improvised scenes.
   - Assessment: Graded performances, and in class critiques with student input

3) Develop independent activities and background character information which is totally imaginative but contains an element of truth as an emotional lifeline, and which is in the extreme, and fully justified.
   - Assessment: Graded performances, and in class critiques with student input

4) Apply improvisation work to actual scene work.
   - Assessment: Graded performances, and in class critiques with student input

IV. Course Evaluation

Once students learn the basic repetition exercise they will be matched with partners, asked to develop either a fully justified independent activity or a reason for coming to the door and knocking. Students will be evaluated each time they do an improvisation with a response sheet listing the specifics of what worked, what didn’t, and why. Students will be graded on their level of preparation, imagination, and execution.

V. Course Level Justification

This course uses advanced improvisational methods and requires a solid grasp of the basic concepts for acting, movement, and voice.

VI. Topical Course Outline: Each of these topics corresponds to a specific set of exercises that build one upon another:

1. Acting is really doing: living truthfully on stage
2. Taking the intellect out of the process
3. How being “right” is irrelevant
4. The basic repetition
5. The truth from your point of view
6. Independent activities
7. The knock at the door
8. Justifications: being specific
9. Emotional preparations: how to get your emotional engine running
10. Upping the stakes: extremes
11. Improvisations and scenes

VII. Suggested Text

VIII. Bibliography


* Seminal text in the field
## Course Action Request

### University of Alaska Anchorage

**Proposal to Initiate, Add, Change, or Delete a Course**

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<th>1a. School or College</th>
<th>1b. Division</th>
<th>1c. Department</th>
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<th>2. Course Prefix</th>
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### 6. Complete Course Title

**Theatre Speech and Dialects**

*Abbreviated Title for Transcript (30 character)*

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**If a change, mark appropriate boxes:**

- Prefix
- Credits
- Title
- Grading Basis
- Course Description
- Test Score Prerequisites
- Automatic Restrictions
- Other CCG Update (please specify)

### 10. Grading Basis

- A-F
- P/NP
- NG

### 11. Implementation Date

- Semester/year: Fall/2014 to 7/9999

### 12. Cross Listed with

- Stacked with

### 13a. Impacted Courses or Programs:

List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at [www.uaa.alaska.edu/governance](http://www.uaa.alaska.edu/governance).

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<th>Impacted Program/Course</th>
<th>Date of Coordination</th>
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<td>Department of Theatre and Dance; 136-138</td>
<td>4 February 2014</td>
<td>Tom Skore</td>
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**Initiator Name (typed):** Tom Skore

**Initiator Signed Initials:** ________

**Date:**

### 14. General Education Requirement Mark appropriate box:

- Oral Communication
- Written Communication
- Quantitative Skills
- Humanities
- Fine Arts
- Social Sciences
- Natural Sciences
- Integrative Capstone

### 15. Course Description (suggested length 20 to 50 words)

Continuation of THR A222 starting with the production and energizing of vowels and consonants. In addition to the International Phonetic Alphabet, students will develop a systematic approach for the acquisition of a foreign dialect based on tempo/rhythm, facial posture, pitch range, resonance focus, lilt pattern, topography, history, and national character.

### 16a. Course Prerequisite(s) (list prefix and number or test code and score)

THR A222 with minimum grade of C

### 16b. Co-requisite(s) (concurrent enrollment required)

N/A

### 16c. Automatic Restriction(s)

- College
- Major
- Class
- Level

### 16d. Registration Restriction(s) (non-codable)

N/A

### 17. Mark if course has fees

### 18. Mark if course is a selected topic course

### 19. Justification for Action

Updating prerequisites by adding the language "with a minimum grade of C" in order to align with all upper division performance and technical classes. Revising student learning outcomes.

---

**Initiator (faculty only) Tom Skore**

**Initiator (TYPE NAME)**

- Approved
- Disapproved

**Dean/Director of School/College**

- Approved
- Disapproved

**Undergraduate/Graduate Academic Board Chair**

- Approved
- Disapproved

**Provost or Designee**

- Approved
- Disapproved

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278
I. Date of Initiation: Fall, 2014

II. Course Information:
A. College or School: CAS
B. Course Subject: Theatre
C. Course Number: THR A325
D. Number of Credits: 3.0 (3+0)
E. Course Title: Theatre Speech and Dialects
F. Grading Basis: A-F
G. Course Description: Continuation of THR 222 starting with the production and energizing of vowels and consonants. In addition to the International Phonetic Alphabet, students will develop a systematic approach for the acquisition of a foreign dialect based on tempo/rhythm, facial posture, pitch range, resonance focus, lilt pattern, topography, history and national character.
H. Course Prerequisites: THR A222 with a minimum grade of C
I. Restrictions: None
J. Fees: None

III. Instructional Goals and Student Outcomes
A. Instructional goals. The instructor will:

1) Identify the Lessac energies of speech (consonants, structural, tonal) and various aspects of language (rhythm, lilt, facial posture, resonant focus, pitch range, substitutions) and guide the student toward mastery of these elements as they apply to formal and informal speech, dialects, and poetic drama.

2) Provide the students with a process and the resources by which they can acquire dialects on their own.

3) Assist students toward basic fluency in five dialects: Southern, N.Y.C., Standard British (RP), Cockney, and Irish.

B. Student learning outcomes.

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<thead>
<tr>
<th>Students will be able to:</th>
<th>Assessment:</th>
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<tbody>
<tr>
<td>1) Demonstrate mastery of Lessac’s energies of speech through relaxed forward facial posture, full two finger spacing on formal vowels, awareness of the y-buzz, use of the full consonant orchestra, and command of the neutral vowels and diphthongs.</td>
<td>Actual performance; written tests and quizzes</td>
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</table>
2) Demonstrate a basic knowledge of the IPA (International Phonetic Alphabet), as well as a small number of basic diacritics. In class exercises; written tests and quizzes

3) Demonstrate basic proficiency in American Southern, NYC, Standard British (RP), Cockney, and Irish. Graded audio recordings on CD’s or thumb drives; in class conversations or readings in assigned dialects

IV. Course Evaluation

Students will be evaluated based on exams and quizzes for both Lessac and the IPA. Students will also turn in CDs or cassettes of exercises and dialects that will be graded and critiqued.

V. Course Level Justification

This course builds on vocal training methods used in THR A222, Voice for the Actor, to prepare the student for advanced work with Shakespeare and other poetic drama as well as dialects, which require extreme sensitivity to all elements involved with the production of language, with the specific goal of manipulating those elements as needed.

VI. Topical Course Outline

1. Vowels: the music of language
2. Consonants: the consonant orchestra
3. Dialects: an overview
4. Southern
5. NYC
6. British RP
7. Cockney
8. Irish

VII. Suggested Text


VIII. Bibliography


* Seminal textbook in the field
Course Action Request  
University of Alaska Anchorage  
Proposal to Initiate, Add, Change, or Delete a Course

<table>
<thead>
<tr>
<th>1a. School or College</th>
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13a. Impacted Courses or Programs: List any programs or college requirements that require this course.

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<td>Tom Skore</td>
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13b. Coordination Email  
Date: 4 February 2014  
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison  
Date: 4 February 2014

14. General Education Requirement

Mark appropriate box:
- Oral Communication
- Written Communication
- Quantitative Skills
- Humanities
- Fine Arts
- Social Sciences
- Natural Sciences
- Integrative Capstone

15. Course Description (suggested length 20 to 50 words)

Intensive exploration of text-based analysis of Shakespearean characters. Emphasis will be placed on scene and character study in a studio setting.

16a. Course Prerequisite(s) (list prefix and number or test code and score)  
(THR A221 and THR A222) with minimum grade of C

16b. Co-requisite(s) (concurent enrollment required)  
N/A

16c. Automatic Restriction(s)  
College | Major | Class | Level

16d. Registration Restriction(s) (non-codable)  
N/A

17. Mark if course has fees

18. Mark if course is a selected topic course

19. Justification for Action

Updating prerequisites by adding the language "with a minimum grade of C" in order to align with all upper division performance and technical classes. Revising student learning outcomes.

Initiator (faculty only)  
Tom Skore
Initiator Signed Initials: _______  Date: _______

[Approval stamps for various levels of approval]
Course Content Guide
University of Alaska Anchorage
THR A328
Acting Shakespeare

I. Date of Initiation: Fall, 2014

II. Course Information:
A. College or School: CAS  
B. Course Subject: Theatre  
C. Course Number: THR A328  
D. Number of Credits: 3.0 (2+3)  
E. Course Title: Acting Shakespeare  
F. Grading Basis: A-F  
G. Course Description: Intensive exploration of text-based analysis of Shakespearean characters. Emphasis will be placed on scene and character study in studio setting.  
H. Course Prerequisites: (THR A221 and THR A222) with a minimum grade of C  
I. Restrictions: None  
J. Fees: None

III. Instructional Goals and Student Outcomes
A. Instructional goals: The instructor will:

1). Discuss the significant historical and social trends, which shaped Elizabethan sensibilities and formed the foundation for Elizabethan poetic drama.  
2). Identify and illustrate rhetorical devices and figures of speech commonly found in poetic drama.  
3). Discuss the basic rules of scansion and demonstrate how understanding the poetic structure helps shape character development.  
4). Lead actors through a series of exercises designed to integrate text with voice, body, and emotions.  
5). Provide background information on the particular plays used for class.

B. Student learning outcomes:

<table>
<thead>
<tr>
<th>Students will be able to:</th>
<th>Assessment:</th>
</tr>
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<tbody>
<tr>
<td>1) Identify and discuss the significant historical and social trends which shaped Elizabethan sensibilities.</td>
<td>Through written assignments, and graded</td>
</tr>
<tr>
<td></td>
<td>performances followed by class critiques with student input</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td>2) Recognize rhetorical devices and figures of speech commonly found in poetic drama and use them effectively in performance.</td>
<td>Through graded performances and class critiques with student input</td>
</tr>
<tr>
<td>3) Apply scansion skills to the analysis of poetic text and demonstrate its connection to character development and performance.</td>
<td>Through classroom exercises and demonstrations</td>
</tr>
<tr>
<td>4) Perform scenes from selected plays, including one as a final project.</td>
<td>Graded performances of final scenes and monologues</td>
</tr>
</tbody>
</table>

IV. Course Evaluation

Students will encounter a comprehensive final exam covering all lecture material, as well as the occasional quiz. The bulk of their grade, however, will be based on performance projects from particular plays of Shakespeare chosen specifically for that class. Projects will include a monologue and two scenes where students will have the opportunity to put theory into practice. Students will use outside class time for rehearsal of projects and keep a journal of their creative class activities to be shared if requested by the instructor.

V. Course Level Justification

Shakespeare’s poetry demands research, imagination, and technical skill. Therefore, THR A221, Movement for the Actor, and THR A222, Voice for the Actor, are all prerequisites for THR A328, Acting Shakespeare.

VI. Topical Course Outline

1. The sounds of speech: vowels, consonants, and silence
2. The vertical and horizontal of speech: balancing meaning and emotions
3. Elizabethan sensibilities: Who were they? Why did they think that way?
4. Reading Shakespeare’s plays: tips for approaching poetic drama
5. Scanning Shakespeare’s poetry: What does the poetry tell us?
7. Researching the plays: Where are my best sources?
8. Poetry into action: What they mean when they say “it’s all right there.”
VII. **Suggested Text:**

Each semester students will be asked to purchase different plays. Instructor will examine versions from different publishers to select the best possible acting editions, including one that contains a first folio edition.

VIII. **Bibliography**


Scheeder & Younts. *All the Words on Stage*. Hanover: Smith and Kraus, 2002.


### Course Action Request

#### University of Alaska Anchorage

**Proposal to Initiate, Add, Change, or Delete a Course**

<table>
<thead>
<tr>
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<td>5a. Credits/CEUs</td>
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<tr>
<td>5b. Contact Hours</td>
<td>(Lecture + Lab) (3+0)</td>
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**6. Complete Course Title**

Lighting Design

**Abbreviated Title for Transcript (30 character)**

<table>
<thead>
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<th>7. Type of Course</th>
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<tr>
<td>☑ Academic</td>
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**8. Type of Action:**

- [ ] Add
- [ ] Change
- [ ] Delete

*If a change, mark appropriate boxes:*

- [ ] Prefix
- [ ] Credits
- [ ] Title
- [ ] Grading Basis
- [ ] Course Description
- [ ] Test Score Prerequisites
- [ ] Automatic Restrictions
- [X] Other Course Content Guide (please specify)

**9. Repeat Status No**

- [ ] # of Repeats
- [ ] Max Credits

**10. Grading Basis**

- [ ] A-F
- [ ] P/NP
- [ ] NG

**11. Implementation Date**

- [ ] semester/year

*From: Fall/2014 To: 9999*

**12. Cross Listed with**

- [ ] Stacked with

*Cross-Listed Coordination Signature*

**13a. Impacted Courses or Programs:**

List any programs or college requirements that require this course.

- [ ] Initiator Name (typed): Colleen Metzger
- [ ] Initiator Signed Initials: _________
- [ ] Date:________________

**14. General Education Requirement**

- [ ] Mark appropriate box:
  - Oral Communication
  - Written Communication
  - Quantitative Skills
  - Humanities
  - Fine Arts
  - Social Sciences
  - Natural Sciences
  - Integrative Capstone

**15. Course Description (suggested length 20 to 50 words)**

Theory and practice of the design and execution of lighting and associated electrical effects for the stage. Focus on theatrical lighting with additional material on related fields.

**16a. Course Prerequisite(s) (list prefix and number or test code and score)**

(THR A131 & THR A132) with a minimum grade of C

**16b. Co-requisite(s) (concurrent enrollment required)**

**16c. Automatic Restriction(s)**

- [ ] College
- [ ] Major
- [ ] Class
- [ ] Level

**16d. Registration Restriction(s) (non-codable)**

**17. Mark if course has fees**

- [ ]

**18. Mark if course is a selected topic course**

- [ ]

**19. Justification for Action**

Updating prerequisites to align with all upper division performance and technical classes. Revising student learning outcomes.

**Initiator (faculty only)**

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<tr>
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<th>Colleen Metzger</th>
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**Provost or Designee**

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Course Content Guide
University of Alaska Anchorage
THR A347
Lighting Design

I. **Date of Initiation:** Fall, 2014

II. **Course Information:**
   A. College or School: CAS
   B. Course Subject: Theatre
   C. Course Number: A347
   D. Number of Credits: 3.0 (3+0)
   E. Course Title: Lighting Design
   F. Grading Basis: A-F
   G. Course Description:
      Theory and practice of the design and execution of lighting and
      associated electrical effects for the stage. Focus on theatrical
      lighting with additional material on related fields.
   H. Course Prerequisites: (THR A131 & THR A132) with a minimum grade of C
   I. Restrictions: None
   J. Fees: Yes

III. **Instructional Goals and Student Learning Outcomes:**
   A. Instructional Goals. The Instructor will:
      1) Present the fundamentals of lighting design.
      2) Discuss and define each area of the design process.
      3) Demonstrate the proper techniques in working with the required
         paperwork in realizing a lighting design.
      4) Discuss basic skills in working with lighting equipment and its control
         equipment.
      5) Demonstrate the importance of lighting and its emotional impact on the
         production.
      6) Discuss how to analyze a script or project for lighting design.

   B. Student Learning Outcomes.
      | The students will be able to: | Assessed by: |
      |-------------------------------|--------------|
      | 1. Identify the fundamentals of lighting design. | Quizzes and exams |
      | 2. Analyze a play and design lighting based on that analysis. | In class presentation/discussion with instructor feedback, and the final project |
      | 3. Demonstrate an understanding of how to work within the confines of a defined lighting inventory. | Final project |
      | 4. Articulate a clear design idea and how it’s related to the play. | In class presentation/discussion with instructor feedback |
      | 5. Complete a lighting design for a play including drafting the proper documents for the design. | Final project |
IV. Course Evaluation

Students will be evaluated based on their performance in a series of lighting projects designed to teach them the design process. Additionally, they will be evaluated on a written exam, in-class presentations, attendance, and the completion of a lighting design including all of the supporting documentation.

V. Course Level Justification

Designed as an upper division course which covers the technical and artistic aspects of lighting design for the stage. This class builds on the technical skills gained in THR A131, and the theoretical and design skills gained in THR A132.

VI. Topical Course Outline

1. Basic principles of electricity and stagecraft
2. Designing lights at UAA
3. Basic concepts of lighting instrumentation
4. An introduction to color theory as it relates to lighting design
5. Mapping out your lighting ideas
6. Discussing photometrics
7. Basic paperwork associated with lighting design
8. An introduction to the design process
9. Script analysis
10. Collecting lighting research
11. Lighting storyboards
12. Putting it all together
13. Working within a specified inventory
14. The lighting hang and focus
15. Realizing the design at the tech table
16. The lighting strike

VII. Suggested Text

VIII. Bibliography


### Course Action Request

#### University of Alaska Anchorage

Proposal to Initiate, Add, Change, or Delete a Course

<table>
<thead>
<tr>
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<th>1c. Department</th>
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<th>3. Course Number</th>
<th>4. Previous Course Prefix &amp; Number</th>
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<th>5b. Contact Hours (Lecture + Lab)</th>
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<td>A357</td>
<td>N/A</td>
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#### Complete Course Title

Costume Construction

**Abbreviated Title for Transcript (30 character)**

1. **Type of Course**
   - [ ] Academic
   - [ ] Preparatory/Development
   - [ ] Non-credit
   - [ ] CEU
   - [ ] Professional Development

2. **Type of Action:**
   - [ ] Add
   - [ ] Change
   - [ ] Delete

If a change, mark appropriate boxes:

- [ ] Prefix
- [ ] Course Number
- [x] Title
- [ ] Credits
- [ ] Contact Hours
- [ ] Repeat Status
- [ ] Grading Basis
- [ ] Cross-Listed/Stacked
- [x] Course Description
- [ ] Course Prerequisites
- [ ] Test Score Prerequisites
- [ ] Co-requisites
- [x] Automatic Restrictions
- [ ] Registration Restrictions
- [ ] General Education Requirement
- [ ] Class
- [ ] Level
- [ ] College
- [ ] Major
- [ ] Repeat Status
- [ ] Grading Basis
- [ ] Cross-Listed/Stacked
- [ ] Other Course Content Guide (please specify)

3. **Repeat Status**
   - Yes
   - # of Repeats: 1
   - Max Credits: 6

4. **Grading Basis**
   - [x] A-F
   - [ ] P/NP
   - [ ] NG

5. **Implementation Date**
   - From: Fall 2014
   - To: /999

6. **Cross Listed with**
   - [ ]
   - [ ] Stacked with
   - [ ] Cross-Listed Coordination Signature

7. **Type of Action**
   - [ ] Add
   - [ ] Change
   - [ ] Delete

8. **Repeat Status**
   - Yes
   - # of Repeats: 1
   - Max Credits: 6

9. **Grading Basis**
   - [x] A-F
   - [ ] P/NP
   - [ ] NG

10. **Implementation Date**
    - From: Fall 2014
    - To: /999

11. **Cross Listed with**
    - [ ]
    - [ ] Stacked with
    - [ ] Cross-Listed Coordination Signature

12. **Type of Action**
    - [ ] Add
    - [ ] Change
    - [ ] Delete

If a change, mark appropriate boxes:

- [ ] Prefix
- [ ] Course Number
- [ ] Title
- [ ] Credits
- [ ] Contact Hours
- [ ] Repeat Status
- [ ] Grading Basis
- [ ] Cross-Listed/Stacked
- [x] Course Description
- [ ] Course Prerequisites
- [ ] Test Score Prerequisites
- [ ] Co-requisites
- [x] Automatic Restrictions
- [ ] Registration Restrictions
- [ ] General Education Requirement
- [ ] Class
- [ ] Level
- [ ] College
- [ ] Major
- [ ] Repeat Status
- [ ] Grading Basis
- [ ] Cross-Listed/Stacked
- [ ] Other Course Content Guide (please specify)

13a. **Impacted Courses or Programs**: List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

<table>
<thead>
<tr>
<th>Impacted Program/Context</th>
<th>Date of Coordination</th>
<th>Chair/Coordinator Contacted</th>
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<tr>
<td>Department of Theatre and Dance; 136-138</td>
<td>4 February 2014</td>
<td>Tom Skore</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
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</tr>
</tbody>
</table>

Initiator Name (typed): Colleen Metzger

Initiator Signed Initials: __________

Date: __________

13b. **Coordination Email**

Date: 4 February 2014

submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. **Coordination with Library Liaison**

Date: 4 February 2014

14. **General Education Requirement**

Mark appropriate box:

- [ ] Oral Communication
- [ ] Written Communication
- [ ] Quantitative Skills
- [ ] Humanities
- [ ] Social Sciences
- [ ] Natural Sciences
- [ ] Integrative Capstone

15. **Course Description**

(suggested length 20 to 50 words)

Advanced work in costume construction, including developing essential sewing techniques, gaining basic knowledge of draping and pattern alteration, and completion of a finished theatrical garment. Special Note: This course includes a Lab.

16a. **Course Prerequisite(s)**

(list prefix and number or test code and score)

THR A131 - with minimum grade C

16b. **Course Prerequisite(s)**

(concurrent enrollment required)

N/A

16c. **Automatic Restrictions**

- [ ] College
- [ ] Major
- [ ] Class
- [ ] Level

16d. **Registration Restriction(s)**

(non-codable)

N/A

17. [x] Mark if course has fees

18. [ ] Mark if course is a selected topic course

19. **Justification for Action**

New instructor teaching the course. Altering title to accurately represent what is taught in the course, adjusting prerequisites so students are prepared for material taught in the course, and updating the Course Content Guide.

Initiator (faculty only) (TYPE NAME)

Colleen A Metzger

Initiator (TYPE NAME)

Initiator (faculty only) (TYPE NAME)

Initiator (TYPE NAME)

Initiator (faculty only) (TYPE NAME)

Approved

Disapproved

Dean/Director of School/College

Date

Approved

Disapproved

Undergraduate/Graduate Academic

Date

Approved

Disapproved

Board Chair

Date

Approved

Disapproved

Provost or Designee

Date
I. Date of Initiation: Fall, 2014

II. Course Information:

A. College or School: CAS
B. Course Subject: Theatre & Dance
C. Course Number: A357
D. Number of Credits: 3.0 (1+4)
E. Course Title: Costume Construction
F. Repeat Status: 1 Repeat, Total Credits = 6
G. Grading Basis: A-F
H. Course Description: Advanced work in costume construction, including developing essential sewing techniques, gaining basic knowledge of draping and pattern alteration, and completion of a finished theatrical garment. Special Note: This course includes a Lab.
I. Course Prerequisites: THR A131, with minimum grade C
J. Co-Requisite: None
K. Restrictions: None
L. Fees: Yes

III. Instructional Goals and Student Outcomes:
A. Instructional Goals. The Instructor will:

1) Discuss and define each area of costume shop operations.

2) Introduce essential hand sewing and machine sewing techniques.

3) Present the techniques for draping garments.

4) Demonstrate techniques for drafting flat patterns from scratch and repurposing existing flat patterns.

5) Demonstrate the proper techniques for measurement and fitting of actors.

6) Discuss good communication skills with the designers and learn to work in collaboration with designers, directors and actors.
B. Student Learning Outcomes. The students will be able to:

<table>
<thead>
<tr>
<th>Student Learning Outcomes</th>
<th>Assessment</th>
</tr>
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<tbody>
<tr>
<td>1) Identify and describe the costume shop areas and operations.</td>
<td>1) Quizzes</td>
</tr>
<tr>
<td>2) Master basic hand and machine sewing skills.</td>
<td>2) Creation of a skills binder</td>
</tr>
<tr>
<td>3) Demonstrate draping and flat pattern drafting techniques for costume construction.</td>
<td>Application on Final Project Garment</td>
</tr>
<tr>
<td>4) Measure actors and do costume fittings confidently.</td>
<td>3) Two draping assignments</td>
</tr>
<tr>
<td>5) Demonstrate good communication skills that enhance creative collaboration.</td>
<td>One drafting assignment</td>
</tr>
</tbody>
</table>

IV. Course Evaluation
Students will be evaluated based on hands-on sewing projects that help them practice the various skills learned in class, and furthermore act as a guide for all future sewing endeavors. These projects will cumulate in a finished, theatrical garment that was measured, draped, and fit entirely by the student.

V. Course Level Justification
This is an upper division course that builds on the basic sewing skills gained in Introduction to Production Techniques, THR A131. The repeat status would allow the student to take the course an additional time, and complete far more advanced projects to further their costume construction skill.

VI. Topical Course Outline
1. Costume Shop layout and operation
2. Hand Sewing
3. Machine Sewing
4. Taking Measurements
5. Draping
6. Flat Patterning
7. Fabric Identification
8. Fitting the actors with an emphasis on movement
9. Interpretation of the designs and transferring a sketch to fabric
10. Communicating with the costume designer, director and actors
11. Budgeting the designs
12. Finishing details and the overall look of the show
VII. Suggested Text


VIII. Bibliography


## Course Action Request

### University of Alaska Anchorage

**Proposal to Initiate, Add, Change, or Delete a Course**

### Course Information

<table>
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### Course Title

**Resume & Portfolio Workshop**

### Abbreviated Title for Transcript (30 character)

### Type of Course

- [x] Academic
- [ ] Preparatory/Development
- [ ] Non-credit
- [ ] CEU
- [ ] Professional Development

### Type of Action:

- [x] Add
- [ ] Change
- [ ] Delete

### Repeat Status

- [ ] No
- [ ] # of Repeats
- [ ] Max Credits

### Grading Basis

- [x] A-F
- [ ] P/NP
- [ ] NG

### Implementation Date

- From: Fall/2014
- To: 9999

### Cross Listed with/Stacked with

### Cross-Listed Coordination Signature

### Impact Courses or Programs

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### Initiator Name (typed): Colleen Metzger

### Initiator Signed Initials: _________

### Date:________________

### Course Description

This course offers career preparation for theatre professionals. Portfolio preparation will follow the United States Institute for Theatre Technology's standards and standards employed by Actors’ Equity Association, LORT theatres and URTA and ACTF for Stage Managers. Standards and subjects include: organization, resume, interview/audition procedures, personal marketing and presentation, dress and decorum, job applications, and networking. Special Note: Recommended for the fall semester of the student's senior year.

### Course Prerequisite(s)

| 16a. | (list prefix and number or test code and score) |
| 16b. | Co-requisite(s) (concurrent enrollment required) |
| 16c. | Automatic Restriction(s) |
| 16d. | Registration Restriction(s) (non-codable) |

### Fee

- [ ] Mark if course has fees

### Justification for Action

Creates a new course to help prepare our students to enter the workforce or apply for graduate school. This course will also be a cornerstone of our departmental assessment.
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<td>College/School Curriculum Committee Chair</td>
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Course Content Guide
University of Alaska Anchorage
THR A450
Resume & Portfolio Workshop

I. Date of Initiation: Fall, 2014

II. Course Information:
A. College or School: CAS
B. Course Subject: Theatre & Dance
C. Course Number: A450
D. Number of Credits: 1.0 (1+2)
E. Course Title: Resume & Portfolio Workshop
F. Grading Basis: A-F
G. Course Description: This course offers career preparation for theatre professionals. Portfolio preparation will follow the United States Institute for Theatre Technology’s standards and standards employed by Actors’ Equity Association, LORT theatres and U/RTA and ACTF for Stage Managers. Standards and subjects include: organization, resume, interview/audition procedures, personal marketing and presentation, dress and decorum, job applications, and networking. Special Note: Recommended for the fall semester of the student’s final year.
H. Course Prerequisites: N/A
I. Co-Requisite: N/A
J. Restrictions: Fall Semester of final year
K. Fees: No

III. Instructional Goals and Student Learning Outcomes:
A. Instructional Goals. The Instructor will:
   1) Present the details of creating a theatrical resume & portfolio.
   2) Delineate industry specific standards for creating a portfolio in the areas of design and technology, performance, and dance.
   3) Introduce skills to help prepare for and navigate a professional interview/portfolio presentation.
   4) Discuss methods of personal marketing and professional networking.

B. Student Learning Outcomes. The students will be able to:

<table>
<thead>
<tr>
<th>Student Learning Outcomes</th>
<th>Assessment</th>
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<tbody>
<tr>
<td>1. Demonstrate an understanding of the discipline specific requirements for portfolio creation.</td>
<td>Final portfolio</td>
</tr>
<tr>
<td>2. Identify the qualities of a well-designed resume.</td>
<td>Resume and cover letter project</td>
</tr>
<tr>
<td>3. Demonstrate portfolio presentation techniques.</td>
<td>Mock interview/presentation</td>
</tr>
</tbody>
</table>
4. Demonstrate ability to locate and apply for employment in a selected area.  
   Resume and cover letter project

5. Illustrate knowledge of professional networking and marketing.  
   Marketing project

IV. **Course Evaluation**
   This course is largely independent work. Students will be expected to attend all of the group sections, and the one on one mentoring sessions with the instructor. The finished portfolio, resume and mock interview will be the main tools for evaluation.

V. **Course Level Justification**
   This course is a course required in the fall semester of their final year for the BA in Theatre. Students will use the mini portfolios they made for each of the technical practicum classes along with all of their achievements as a theatre major to complete this class.

VI. **Topical Course Outline**
   1. The theatrical resume
   2. Creating your brand
   3. The cover letter
   4. The business of show business
   5. Designing a portfolio that works for you
   6. The design portfolio
   7. The actors portfolio
   8. The technicians portfolio
   9. The dance portfolio
   10. An introduction to the standards in: USITT, URTA, LORT, AEA, AFTRA, and ACTF
   11. How to find job openings in the performing arts
   12. How to prepare for the job interview
   13. Marketing yourself
   14. Professional networking
   15. Your exit interview

VII. **Bibliography**


# Course Action Request

## University of Alaska Anchorage

Proposal to Initiate, Add, Change, or Delete a Course

---

<table>
<thead>
<tr>
<th>1a. School or College</th>
<th>1b. Division</th>
<th>1c. Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS CAS</td>
<td>AFAR Division of Fine Arts</td>
<td>Theatre and Dance</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Course Prefix</th>
<th>3. Course Number</th>
<th>4. Previous Course Prefix &amp; Number</th>
<th>5a. Credits/CEUs</th>
<th>5b. Contact Hours (Lecture + Lab)</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR</td>
<td>A490</td>
<td>N/A</td>
<td>3</td>
<td>(2+2)</td>
</tr>
</tbody>
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---

6. Complete Course Title:

**Selected Topics in Performance**

**Abbreviated Title for Transcript (30 character)**

---

7. Type of Course:

- [x] Academic
- [ ] Preparatory/Development
- [ ] Non-credit
- [ ] CEU
- [ ] Professional Development

---

8. Type of Action:

- [ ] Add
- [x] Change
- [ ] Delete

If a change, mark appropriate boxes:

- [ ] Prefix
- [ ] Credits
- [ ] Title
- [ ] Grading Basis
- [ ] Course Description
- [ ] Course Prerequisites
- [ ] Automatic Restrictions
- [ ] Registration Restrictions
- [ ] General Education Requirement
- [ ] Other Update CCG (please specify)

---

9. Repeat Status Yes # of Repeats 3 Max Credits 12

10. Grading Basis:

- [x] A-F
- [ ] P/NP
- [ ] NG

11. Implementation Date:

From: Fall/2014 To: 9999

12. Cross Listed with

- [ ] Stacked with

13a. Impacted Courses or Programs:

List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at [www.uaa.alaska.edu/governance](http://www.uaa.alaska.edu/governance).

### Impacted Program/Course

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Date of Coordination</th>
<th>Chair/Coordinator Contacted</th>
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</thead>
<tbody>
<tr>
<td>Department of Theatre and Dance; 136-138</td>
<td>4 February 2014</td>
<td>Tom Skore</td>
</tr>
</tbody>
</table>

---

14. General Education Requirement:

Mark appropriate box:

- [ ] Oral Communication
- [ ] Written Communication
- [ ] Quantitative Skills
- [ ] Humanities
- [ ] Social Sciences
- [ ] Natural Sciences
- [ ] Integrative Capstone

15. Course Description (suggested length 20 to 50 words)

Current topics in theatrical performance addressing special demands of the theatre season or special faculty expertise. Special note: may be repeated with change of subtitle.

16a. Course Prerequisite(s) (list prefix and number or test code and score)

THR A121 with minimum grade of C

16b. Co-requisite(s) (concurrent enrollment required)

N/A

16c. Automatic Restriction(s)

- [ ] College
- [ ] Major
- [ ] Class
- [ ] Level

16d. Registration Restriction(s) (non-codable)

N/A

17. Mark if course has fees

18. Mark if course is a selected topic course

19. Justification for Action:

Updating prerequisites by adding the language "with a minimum grade of C" in order to align with all upper division performance and technical classes. Revising student learning outcomes.

---

Initiator Name (typed): Tom Skore

Initiator Signed Initials: _________

Date:________________

13b. Coordination Email

submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

Date: 4 February 2014

13c. Coordination with Library Liaison

Date: 4 February 2014

---

19. Justification for Action:

Revising student learning outcomes.

Initiator (faculty only) Tom Skore

Initiator (TYPE NAME)

[ ] Approved
- [ ] Disapproved

Dean/Director of School/College Date

[ ] Approved
- [ ] Disapproved

Undergraduate/Graduate Academic Board Chair Date

[ ] Approved
- [ ] Disapproved

Provost or Designee Date
I. Date of Initiation: Fall, 2014

II. Course Information:
A. College or School: CAS
B. Course Subject: Theatre
C. Course Number: THR A490
D. Number of Credits: 3.0 (2+2)
E. Course Title: Selected Topics in Performance.
F. Grading Basis: A-F
G. Course Description: Current topics in theatrical performance addressing special demands of the theatre season or special faculty expertise.
H. Course Prerequisites: THR A121 with a minimum grade of C
I. Restrictions: None
J. Fees: None

III. Instructional Goals and Student Outcomes
A. Instructional goals: The instructor will:

1) Discuss what is unique about the chosen area of study and the way the material can be used to enhance an area of performance.

2) Teach the specific steps/process involved in acquiring the new skill or technique.

3) Make recommendations for the improvement of process and product.

B. Student Learning Outcomes.

<table>
<thead>
<tr>
<th>Students will be able to:</th>
<th>Assessment method:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Discuss the history and philosophy behind the new technique as well as how to apply the technique to performance in specific terms.</td>
<td>Assessment method will vary with topic but will include written exams, and performance</td>
</tr>
<tr>
<td>2. List and execute all essential steps in that process.</td>
<td>Assessment method will vary with topic but will include written exams, and performance</td>
</tr>
<tr>
<td>3. Critically examine the strengths and weaknesses of performance projects in terms of the language and concepts learned in the class.</td>
<td>In class critiques</td>
</tr>
</tbody>
</table>
IV. Course Evaluation

Course evaluation will differ depending on the nature of the subject matter, though performance projects and critiques will always be essential to the process.

V. Course Level Justification

Topics will always be in special areas of interest and use advanced techniques.

VI. Topical Course Outline: Topics vary according to interests and expertise of the faculty teaching the course. Below is a sample outline of a possible course.

Stage emotive techniques (A class previously taught under this course number)

1. Alba Emoting: what is it?
2. What is an emotion?
3. How the brain developed
4. How the brain works, in particular, emotionally
5. The step out: eliminating emotional hangovers
6. The effector patterns:
   A. Tender love
   B. Joy
   C. Sadness
   D. Anger
   E. Fear
   F. Erotic love

VII. Suggested Text


VIII. Bibliography


## Course Action Request

**University of Alaska Anchorage**

Proposal to Initiate, Add, Change, or Delete a Course

### 1a. School or College
AS CAS

### 1b. Division
AFAR Division of Fine Arts

### 1c. Department
Theatre and Dance

### 2. Course Prefix
THR

### 3. Course Number
A495

### 4. Previous Course Prefix & Number
N/A

### 5a. Credits/CEUs
1-3

### 5b. Contact Hours
(Lecture + Lab)
(0+3-9)

### 6. Complete Course Title
Advanced Practicum: Technical

### 7. Type of Course
- [x] Academic
- [ ] Preparatory/Development
- [ ] Non-credit
- [ ] CEU
- [ ] Professional Development

### 8. Type of Action:
- [ ] Add
- [x] Change
- [ ] Delete

If a change, mark appropriate boxes:
- [ ] Prefix
- [ ] Course Number
- [ ] Credits
- [ ] Title
- [ ] Grading Basis
- [ ] Course Description
- [ ] Test Score Prerequisites
- [ ] Automatic Restrictions
- [x] Other Course Content Guide (please specify)

### 9. Repeat Status
- [ ] Yes
- [ ] No

# of Repeats
3

Max Credits
12

### 10. Grading Basis
- [x] A-F
- [ ] P/NP
- [ ] NG

### 11. Implementation Date
- [ ] semester/year
  - From: Fall/2014
  - To: 9/999

### 12. Cross Listed with
- [ ] Stacked with

Cross-Listed Coordination Signature

### 13a. Impacted Courses or Programs:
List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

<table>
<thead>
<tr>
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<tr>
<td>Department of Theatre and Dance; 138-138</td>
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<td>Tom Skore</td>
</tr>
<tr>
<td>1.</td>
<td></td>
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<tr>
<td>2.</td>
<td></td>
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<tr>
<td>3.</td>
<td></td>
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</tr>
</tbody>
</table>

Initiator Name (typed): Dan Anteau

Initiator Signed Initials: _________

Date: __________________

### 13b. Coordination Email
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

Date: 4 February 2014

### 13c. Coordination with Library Liaison
Date: 4 February 2014

### 14. General Education Requirement
Mark appropriate box:
- [ ] Oral Communication
- [ ] Written Communication
- [ ] Quantitative Skills
- [ ] Humanities
- [ ] Social Sciences
- [ ] Natural Sciences
- [ ] Integrative Capstone

### 15. Course Description (suggested length 20 to 50 words)
Technical practicum for juniors and seniors. Emphasis is on participation in a mainstage production as a significant member of the technical/production crew or design team.

### 16a. Course Prerequisite(s)
(list prefix and number or test code and score)
THR A295 with minimum grade of C

### 16b. Co-requisite(s)
(concurrent enrollment required)
N/A

### 16c. Automatic Restriction(s)
- [ ] College
- [ ] Major
- [ ] Class
- [ ] Level

### 16d. Registration Restriction(s)
(non-codable)
N/A

### 17. Mark if course has fees
- [ ] Yes
- [ ] No

### 18. Mark if course is a selected topic course
- [ ] Yes
- [ ] No

### 19. Justification for Action
Updating prerequisites by adding the language "with a minimum grade of C" in order to align with all upper division performance and technical classes. Removing instructor approval registration. Increasing repeat status to three times for a total of twelve credits.

Revising student learning outcomes.

Dan Anteau
Initiator (TYPE NAME)

Initiator (faculty only) Date

Approved
Disapproved

Dean/Director of School/College Date

Approved
Disapproved

Undergraduate/Graduate Academic Board Chair Date

Approved
Disapproved

Provost or Designee Date

Approved
Disapproved

Department Chair Date

Approved
Disapproved

College/School Curriculum Committee Chair Date

Approved
Disapproved
I. **Date of Initiation:** Fall, 2014

II. **Course Information:**
A. College or School: CAS
B. Course Subject: Theatre
C. Course Number: A495
D. Number of Credits: (1-3, 3+0)
E. Course Title: Advanced Theatrical Practicum: Technical
F. Grading Basis: A-F
G. Course Description: Technical practicum for juniors and seniors. Emphasis is on participation in a mainstage production as a significant member of the technical/production crew or design team.
H. Course Prerequisites: THR A295 with minimum grade of C
I. Restrictions: None
J. Fees: None

III. **Instructional Goals and Student Learning Outcomes:**
A. Instructional Goals. The Instructor will:
   1) Demonstrate the proper execution of the technical/production position.
   2) Discuss expectations of a specifically assigned advanced technical position.
   3) Present proper communication between the areas of a theatrical production.
   4) Demonstrate the proper use of a timeline in order to successfully complete expectations within the assigned advanced position.
   5) Present information on creating a portfolio.

B. Student Learning Outcomes.

<table>
<thead>
<tr>
<th>The students will be able to:</th>
<th>Assessed by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Define the proper execution of the technical/production position.</td>
<td>Individual instructor and/or supervisor feedback.</td>
</tr>
<tr>
<td>2. Identify expectations of the assigned advanced position.</td>
<td>Project status reports.</td>
</tr>
<tr>
<td>3. Demonstrate proper communication within the technical staff.</td>
<td>Practical application of the assigned project with instructor feedback.</td>
</tr>
<tr>
<td>4. Demonstrate a timely completion of expectations for the specifically assigned advanced technical position.</td>
<td>Individual instructor and/or supervisor feedback.</td>
</tr>
</tbody>
</table>
IV. Course Evaluation

Each student will be assigned an advanced position based on the need of a production and the experience of the student. Students will be evaluated based on the completion of allotted number of hours in an assigned advanced position and the successful completion of the assigned project, and completion of the final portfolio.

V. Course Level Justification

By registering for this course the student is expected to have a serious interest in theatre, drama and the entertainment industry activities. Students should have completed the course prerequisite required for a successful completion of the advanced position. Students should be in reasonably good health and have sufficient physical and mental stamina to complete necessary tasks in a timely manner.

VI. Topical Course Outline

1. Clear definition of each area of production
2. Definite expectations within an assigned advanced position
3. Presentation of a timeline.
4. Definite objectives and goals for the technical/production position.
5. Proper communication between areas of production
6. Professional production schedules.

VII. Suggested Text


VIII. Bibliography


MEMORANDUM

TO: CAS Course and Curriculum, UAB, and UAA Faculty

FROM: Colleen Alexis Metzger and Jill Flanders Crosby, Department of Theatre and Dance

DATE: February 4, 2014

RE: Proposed Course and Program Changes

The Department and Theatre and Dance is proposing the following changes to our curriculum, which will affect the catalogue:

We are implementing a Design and Technology concentration, and are altering the catalogue to support this new concentration.

We are also updating several courses to reflect the material taught by new faculty members.

We are also adding a course to serve our new Design and Technology concentration.

We are also changing out existing “options” to “concentrations.”

Additionally, we are updating the CCG for DNCE A170 Dance Appreciation, a Fine Arts General Education Requirement option

Please contact me with any questions at cmetzger@uaa.alaska.edu
1a. School or College
AS CAS

1b. Department
Theatre and Dance

2. Complete Program Title/Prefix
BA Theatre and Dance

3. Type of Program

Choose one from the appropriate drop down menu:
Undergraduate: Bachelor of Arts
Graduate: CHOOSE ONE

This program is a Gainful Employment Program:
☐ Yes or ☒ No

4. Type of Action:

PROGRAM
☐ Add
☒ Change
☐ Delete

PREFIX
☐ Add
☐ Change
☐ Inactivate

5. Implementation Date (semester/year)
From: Fall/2014 To: /9999

6a. Coordination with Affected Units
Department, School, or College: CAS Dept. of Theatre and Drama
Initiator Name (typed): Colleen Metzger
Initiator Signed Initials: _________
Date: __________________

6b. Coordination Email submitted to Faculty Listserv (uaa-faculty@lists.uaa.alaska.edu)
Date: 4 February 2014

6c. Coordination with Library Liaison
Date: 4 February 2014

7. Title and Program Description - Please attach the following:
☒ Cover Memo
☒ Catalog Copy in Word using the track changes function

8. Justification for Action
Changing “option” to “concentration.” Redefining the dance concentration and the performance concentration, and adding a technical concentration. Adding new courses to support our new technical concentration.

Initiator (faculty only)
Colleen Metzger
Initiator (TYPE NAME)

☐ Approved
☐ Disapproved

Dean/Director of School/College
Date

Undergraduate/Graduate Academic Board Chair
Date

Provost or Designee
Date
The Department of Theatre and Dance offers a well-rounded liberal arts approach in its curriculum. Theatre courses cover all the basic areas of theatrical endeavor, including acting, movement for the actor, directing, stagecraft, scene design, lighting, costuming, makeup, dramatic literature, theatre history, dramatic theory and criticism, and play writing. The Dance program offers courses in dance techniques, choreography, improvisation, dance history and dance research methods. Selected topics offered from time to time range from a diverse menu of performance and technical offerings such as: Alba Emoting Technique, Scene Painting, Practical Applications in Theatrical Control Systems, Sound Engineering, and Prop Design and Construction. Dance offers Hip Hop, Salsa Immersion, and Capoeira.

Theatre is the art of giving life in performance to dramatic literature. Production is at the very center of our award-winning Theatre and Dance program. Each season UAA Theatre and Dance produces four plays and two dance concerts on its “modified thrust” Mainstage, and in the Jerry Harper Studio Theatre, a fully-equipped, black-box space. Student-directed scenes, one-acts, and full-length plays are also presented yearly in the Harper. Department plays are cast at open auditions and on average more than 100 majors, non-majors and members of the community are involved in our productions each year. All Theatre and Dance majors are required to participate in Mainstage productions and/or related departmental activities.

Dance as performance and as theoretical discourse from a multidisciplinary and multicultural perspective is primary in the Dance program. As in theatre, production is also at the heart of the program, with the UAA Dance Ensemble as the core performing group. Each year, we feature two dance productions either on Mainstage and/or at the Harper Theatre and guest artist residencies are a staple of the program. All Dance minors, or Theatre majors choosing the dance option, are required to participate in Dance Ensemble performances and/or related departmental activities.

**Honors in Theatre**

Students majoring in Theatre are eligible to graduate with departmental honors if they satisfy all of the following requirements:

1. Meet the requirements for a BA degree in Theatre.
2. Maintain a grade point average of 3.50 or above in Theatre courses applicable to the major requirements.
3. Complete THR A498 Individual Research with a minimum grade of B prior to enrolling in THR A499 Senior Thesis.
4. Complete THR A499 Senior Thesis with a minimum grade of B. The thesis project must be approved in writing in advance by the department faculty and be completed in the senior year. The project must culminate in a public performance or presentation.
5. Students intending to graduate with departmental honors must notify the department in writing at least one year prior to filing their Application for Graduation with the Office of the Registrar.

**Bachelor of Arts, Theatre**

**Program Student Learning Outcomes:**

Students graduating with a Bachelor of Arts in Theatre with a Theatre or Dance option will be able to:

- Translate creative skills and techniques into performance and/or related technical production areas.
- Demonstrate integral collaborative communication skills fundamental to performance and/or related technical production areas.
- Demonstrate theories based on the historical and cultural foundations of theatre, dance and production.
- Analyze artistic works within an informed critical framework through a variety of contexts and formats such as artistic creation, performance, production and critical analysis.

**Admission Requirements**

**Admission Requirements: All Majors**

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7.

**Mandatory Practicum Requirement**

All Theatre Majors (Theatre or Dance option) are required to take at least one credit of Technical Practicum per semester for the first three years. Students will meet with the Department Practicum coordinator to sign up for the semester practicum assignment. Practicum opportunities are available (but not limited to) in the areas of: scene shop assistant, costume shop assistant, prop artist or artisan, light shop assistant, master electrician, master carpenter, assistant technical director, cutter/draper, costume crafts, and student publicist assistant.

**Admission Requirements to Upper Division Courses**

1. Completion of any combination of at least 9 credits from the Tier 1 General Education Requirements with a cumulative GPA of 2.25 or higher.
2. Completion of each of the following courses with a grade of C or better.
Performance Concentration (15 credits):

- THR A121 Introduction to Acting 3
- THR A131 Theatrical Production Techniques 3
- THR A132 Introduction to Design 3
- THR A221 Movement for the Actor 3
- THR A222 Voice for the Actor 3

Design and Technical Concentration (12 credits)

- THR A121 Introduction to Acting 3
- THR A131 Theatrical Production Techniques 3
- THR A132 Introduction to Design 3
- THR A141 Stagecraft I 3

Dance Concentration (17 credits):

- DNCE A170 Dance Appreciation 3
- DNCE A121 Fundamentals of Modern I 2
- DNCE A262 Theory and Improvisation 3
- THR A121 Introduction to Acting 3
- THR A131 Theatrical Production Techniques 3
- THR A132 Introduction to Design 3

Students in the Theatre and Dance Program who do not meet the above standards may not take upper division courses.

**Conditional Admission to Upper Division Courses**

A student classified as being conditionally admitted to upper division status may take upper division THR and DNCE courses for one semester only while fulfilling division deficiencies with departmental approval.

**Graduation Requirements**

Students must complete the following graduation requirements:

**A. General University Requirements**

- Complete the General University Requirements for All Baccalaureate Degrees listed at the beginning of this chapter.

**B. General Education Requirements**

- Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

**C. College of Arts and Sciences Requirements**

- Complete the College of Arts and Sciences Requirements listed at the beginning of the CAS section.

**D. Major Requirements, BA Theatre**

1. Complete the following required core courses (28 credits):
   - THR A121 Introduction to Acting 3
   - THR A131 Theatrical Production Techniques 3
   - THR A132 Introduction to Design 3
   - THR A295 Theatre Practicum: Technical (1-3) 6
   - THR A306 Stage Management 3
   - THR A411 History of the Theatre I 3
   - THR A412 History of the Theatre II 3
   - THR A490 Resume & Portfolio Workshop 1

2. Complete one of the following design area courses: 3
   - THR A243 Scene Design (3)
   - THR A257 Costume Design and Construction I (3)
   - THR A347 Lighting Design (3)
3. Students working toward a degree in Theatre must choose from the following three concentrations:

**Performance Concentration (24 credits):**

a. Complete the following required courses (12 credits):
   - THR A222 Voice for the Actor 3
   - THR A221 Movement for the Actor 3
   - THR A431 Directing I 3
   - THR A311 Representative Plays I (3) 3
   - THR A312 Representative Plays II (3)

b. Complete four of the following performance or technical area courses: 12
   - THR A315 Playwriting Workshop (3)
   - THR A321 Meisner Acting Technique (3)
   - THR A325 Theatre Speech and Dialects (3)
   - THR A328 Acting Shakespeare (3)
   - THR A329 Combat for the Stage (3)
   - THR A337 Costume Design and Construction II (3)
   - THR A376 CAD for the Arts (3)
   - THR A435 Directing II (3)
   - THR A490 Selected Topics in Performance (3)
   - THR A491 Selected Topics in Technical Theatre (3)
   - THR A495 Advanced Practicum: Technical (1-3)

**Design and Technical Concentration (27 credits):**

a. Complete the following required courses (15 credits):
   - THR A141 Stagecraft 3
   - THR A243 Scene Design 3
   - THR A257 Costume Design 3
   - THR A311 Representative Plays I (3) 3
   - THR A312 Representative Plays II (3)
   - THR A347 Lighting Design 3

b. Complete 4 of the following performance or technical area courses: 12
   - THR A315 Playwriting Workshop (3)
   - THR A321 Meisner Acting Technique (3)
   - THR A325 Theatre Speech and Dialects (3)
   - THR A328 Acting Shakespeare (3)
   - THR A329 Combat for the Stage (3)
   - THR A337 Costume Design and Construction II (3)
   - THR A376 CAD for the Arts (3)
   - THR A435 Directing II (3)
   - THR A490 Selected Topics in Performance (3)
   - THR A491 Selected Topics in Technical Theatre (3)
   - THR A495 Advanced Practicum: Technical (1-3)

**Dance Concentration (24 credits):**

a. Complete the following required courses (13 credits):
b. Complete 11 credits from the following performance area courses of which 4 credits must be 200 or above: 11

- DNCE A101 Fundamentals of Ballet I (2)
- DNCE A121 Fundamentals of Modern I (2)
- DNCE/THR A124 Dance for Musical Theatre I (2)
- DNCE A131 Fundamentals of Music-Based Jazz I (2)
- DNCE A145 Dances of the West African Diaspora I (2)
- DNCE A147 Popular American Social Dance (2)
- DNCE A151 Fundamentals of Tap I (1)
- DNCE A205 Fundamentals of Ballet II (2)
- DNCE A223 Fundamentals of Modern II (2)
- DNCE/THR A224 Dance for Musical Theatre II (2)
- DNCE A234 Fundamentals of Music-Based Jazz II (2)
- DNCE A245 Dances of the West African Diaspora II (2)
- DNCE A253 Beginning Tap II (1)
- DNCE A290 Selected Topics in Dance
- DNCE A321 Intermediate Modern I (2)
- DNCE A322 Intermediate Modern II (2)
- DNCE A365 Dance Repertory and Performance I (3)
- DNCE A395 Advanced Practicum: Performance (1-3)
- DNCE A465 Advanced Performance and Choreography Workshop (3)
- DNCE A475 Dance Repertory and Performance II (3)
- DNCE A490 Selected Topics in Dance (1-3)
- THR A221 Movement for the Actor (3)

4. A total of 120 credits is required for the degree of which 42 credits must be upper division.

**Minor, Theatre**

Students majoring in another subject who wish to minor in Theatre must complete the following requirements. A total of 18 credits is required for the minor in Theatre.

1. Complete the following required courses (9 credits):

   - THR A121 Introduction to Acting 3
   - THR A131 Theatrical Production Techniques 3
   - THR A411 History of the Theatre I (3) 3
   - or
   - THR A412 History of the Theatre II (3) 3
   - Theatre electives 3
2. Choose 9 credits from any 200-level or above Theatre course offerings excluding Theatre Practicum

**Minor, Dance**

Students majoring in another subject who wish to minor in Dance must complete the following requirements. A total of 21 credits is required for the minor. Theatre majors with a dance emphasis are not eligible for a dance minor.

1. Complete the following required courses (17 credits):
   - DNCE A170 Dance Appreciation 3
   - DNCE A262 Theory and Improvisation 3
   - DNCE A361 Approaches to Dance Composition 3
   - DNCE A370 Interdisciplinary Dance Studies: Issues and Methods 3
   - DNCE A395 Advanced Practicum: Performance (1-3) 2
   - THR A131 Theatrical Production Techniques 3

2. And choose 4 more credits from the following courses: 4
   - DNCE A101 Fundamentals of Ballet I (2)
   - DNCE A121 Fundamentals of Modern I (2)
   - DNCE/THR A124 Dance for Musical Theatre I (2)
   - DNCE A131 Fundamentals of Music-Based Jazz I (2)
   - DNCE A145 Dances of the West African Diaspora I (2)
   - DNCE A147 Popular American Social Dance (2)
   - DNCE A151 Fundamentals of Tap I (1)
   - DNCE A205 Fundamentals of Ballet II (2)
   - DNCE A223 Fundamentals of Modern II (2)
   - DNCE/THR A224 Dance for Musical Theatre II (2)
   - DNCE A234 Fundamentals of Music-Based Jazz II (2)
   - DNCE A245 Dances of the West African Diaspora II (2)
   - DNCE A253 Beginning Tap II (1)
   - DNCE A321 Intermediate Modern I (2)
   - DNCE A322 Intermediate Modern II (2)
   - DNCE A365 Dance Repertory and Performance I (3)
   - DNCE A465 Advanced Performance and Choreography Workshop (3)
   - DNCE A475 Dance Repertory and Performance II (3)

**FACULTY**

Tom Skore, Professor/Chair, ttskore@uaa.alaska.edu
Colleen Metzger, Assistant Professor, cmetzger@uaa.alaska.edu
Daniel Anteau, Associate Professor, danteau@uaa.alaska.edu
Jill Flanders Crosby, Professor, jflanders Crosby@uaa.alaska.edu
David Edgecombe, Professor, dpedgecombe@uaa.alaska.edu
Brian Jeffery, Term Assistant Professor, bjeffery2@uaa.alaska.edu
Daniel G. Carlgren, Assistant, Professor dcarlgren@uaa.alaska.edu
Fran Lautenberger, Professor Emeritus
Katherine Kramer, Term Assistant Professor, kkramer1001@uaa.alaska.edu
The Department of Theatre and Dance offers a well-rounded liberal arts approach in its curriculum. Theatre courses cover all the basic areas of theatrical endeavor, including acting, movement for the actor, directing, stagecraft, scene design, lighting, costuming, makeup, dramatic literature, theatre history, dramatic theory and criticism, and play writing. The Dance program offers courses in dance techniques, choreography, improvisation, dance history and dance research methods. Selected topics offered from time to time range from a diverse menu of performance and technical offerings such as: Alba Emoting Technique, Scene Painting, Practical Applications in Theatrical Control Systems, Sound Engineering, and Prop Design and Construction. Dance offers Hip Hop, Salsa Immersion, and Capoeira.

Theatre is the art of giving life in performance to dramatic literature. Production is at the very center of our award-winning Theatre and Dance program. Each season UAA Theatre and Dance produces four plays and two dance concerts on its “modified thrust” Mainstage, and in the Jerry Harper Studio Theatre, a fully-equipped, black-box space. Student-directed scenes, one-acts, and full-length plays are also presented yearly in the Harper. Department plays are cast at open auditions and on average more than 100 majors, non-majors and members of the community are involved in our productions each year. All Theatre and Dance majors are required to participate in Mainstage productions and/or related departmental activities.

Dance as performance and as theoretical discourse from a multidisciplinary and multicultural perspective is primary in the Dance program. As in theatre, production is also at the heart of the program, with the UAA Dance Ensemble as the core performing group. Each year, we feature two dance productions either on Mainstage and/or at the Harper Theatre and guest artist residencies are a staple of the program. All Dance minors, or Theatre majors choosing the dance option, are required to participate in Dance Ensemble performances and/or related departmental activities.

Honsors in Theatre
Students majoring in Theatre are eligible to graduate with departmental honors if they satisfy all of the following requirements:
1. Meet the requirements for a BA degree in Theatre.
2. Maintain a grade point average of 3.50 or above in Theatre courses applicable to the major requirements.
3. Complete THR A498 Individual Research with a minimum grade of B prior to enrolling in THR A499 Senior Thesis.
4. Complete THR A499 Senior Thesis with a minimum grade of B. The thesis project must be approved in writing in advance by the department faculty and be completed in the senior year. The project must culminate in a public performance or presentation.
5. Students intending to graduate with departmental honors must notify the department in writing at least one year prior to filing their Application for Graduation with the Office of the Registrar.

Bachelor of Arts, Theatre
Program Student Learning Outcomes:
Students graduating with a Bachelor of Arts in Theatre with a Theatre or Dance option will be able to:
• Translate creative skills and techniques into performance and/or related technical production areas.
• Demonstrate integral collaborative communication skills fundamental to performance and/or related technical production areas.
• Demonstrate theories based on the historical and cultural foundations of theatre, dance and production.
• Analyze artistic works within an informed critical framework through a variety of contexts and formats such as artistic creation, performance, production and critical analysis.

Admission Requirements
Admission Requirements: All Majors
Complete the Admission to Baccalaureate Programs Requirements in Chapter 7.

Mandatory Practicum Requirement
All Theatre Majors (Theatre or Dance option) are required to take at least one credit of Technical Practicum per semester for the first three years.
Students will meet with the Department Practicum coordinator to sign up for the semester practicum assignment. Practicum opportunities are available (but not limited to) in the areas of: scene shop assistant, costume shop assistant, prop artist or artisan, light shop assistant, master electrician, master carpenter, assistant technical director, cutter/draaper, costume crafts, and student publicist assistant.

Admission Requirements to Upper Division Courses
1. Completion of any combination of at least 9 credits from the Tier 1 General Education Requirements with a cumulative GPA of 2.25 or higher.
2. Completion of each of the following courses with a grade of C or better.
### Theatre Option Performance Concentration (1521 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR A121</td>
<td>Introduction to Acting</td>
<td>3</td>
</tr>
<tr>
<td>THR A131</td>
<td>Theatrical Production Techniques</td>
<td>3</td>
</tr>
<tr>
<td>THR A132</td>
<td>Introduction to Design</td>
<td>3</td>
</tr>
<tr>
<td>THR A141</td>
<td>Stagecraft I</td>
<td>3</td>
</tr>
<tr>
<td>THR A221</td>
<td>Movement for the Actor</td>
<td>3</td>
</tr>
<tr>
<td>THR A222</td>
<td>Voice for the Actor</td>
<td>3</td>
</tr>
<tr>
<td>THR A243</td>
<td>Scene Design</td>
<td>3</td>
</tr>
<tr>
<td>THR A297</td>
<td>Costume Design and Construction I</td>
<td>3</td>
</tr>
</tbody>
</table>

### Design and Technical Concentration (12 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR A121</td>
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<td>3</td>
</tr>
<tr>
<td>THR A141</td>
<td>Stagecraft I</td>
<td>3</td>
</tr>
</tbody>
</table>

### Dance Concentration Option (1721 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNCE A170</td>
<td>Dance Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>DNCE A121</td>
<td>Fundamentals of Modern I</td>
<td>2</td>
</tr>
<tr>
<td>DNCE A262</td>
<td>Theory and Improvisation</td>
<td>3</td>
</tr>
<tr>
<td>THR A121</td>
<td>Introduction to Acting</td>
<td>3</td>
</tr>
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<td>THR A221</td>
<td>Movement for the Actor</td>
<td>3</td>
</tr>
<tr>
<td>THR A297</td>
<td>Costume Design and Construction I</td>
<td>3</td>
</tr>
</tbody>
</table>

Students in the Theatre and Dance Program who do not meet the above standards may not take upper division courses.

### Conditional Admission to Upper Division Courses

A student classified as being conditionally admitted to upper division status may take upper division THR and DNCE courses for one semester only while fulfilling division deficiencies with departmental approval.

### Graduation Requirements

Students must complete the following graduation requirements:

**A. General University Requirements**

Complete the General University Requirements for All Baccalaureate Degrees listed at the beginning of this chapter.

**B. General Education Requirements**

Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

**C. College of Arts and Sciences Requirements**

Complete the College of Arts and Sciences Requirements listed at the beginning of the CAS section.

**D. Major Requirements, BA Theatre**

1. Complete the following required core courses (2823 credits):

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>THR A221</td>
<td>Movement for the Actor</td>
<td>3</td>
</tr>
<tr>
<td>THR A297</td>
<td>Costume Design and Construction I</td>
<td>3</td>
</tr>
<tr>
<td>THR A295</td>
<td>Theatre Practicum: Technical (1-3)</td>
<td>6</td>
</tr>
</tbody>
</table>
2. Complete one of the following design area courses: 3
   - THR A243 Scene Design (3)
   - THR A347 Lighting Design (3)
   - THR A257 Costume Design and Construction I (3)
   - THR A347 Lighting Design (3)

3. Students working toward a degree in Theatre must choose from the following three concentration options:
   **Theatre Option Performance Concentration (24 credits):**
   a. Complete the following required courses (12 credits):
      - THR A141 Stagecraft I 3
      - THR A222 Voice for the Actor 3
      - THR A221 Movement for the Actor 3
      - THR A243 Scene Design 3
      - THR A311 Representative Plays I (3) 3
      - or
      - THR A312 Representative Plays II (3)
   b. Complete three of the following performance or technical area courses: 12
      - THR A315 Playwriting Workshop (3)
      - THR A321 Meisner Acting Technique (3)
      - THR A325 Theatre Speech and Dialects (3)
      - THR A328 Acting Shakespeare (3)
      - THR A329 Combat for the Stage (3)
      - THR A357 Costume Design and Construction II (3)
      - THR A376 CAD for the Arts (3)
      - THR A435 Directing II (3)
      - THR A490 Selected Topics in Performance (3)
      - THR A491 Selected Topics in Technical Theatre (3)
      - THR A495 Advanced Practicum: Technical (1-3)

   **Design and Technical Concentration (27 credits):**
   a. Complete the following required courses (15 credits):
      - THR A141 Stagecraft 3
      - THR A243 Scene Design 3
      - THR A257 Costume Design 3
      - THR A311 Representative Plays I (3) 3
      - Thr A312 Representative Plays II (3)
      - THR A347 Lighting Design 3
      - or
      - THR A490 Resume & Portfolio Workshop 1
   b. Complete 4 of the following performance or technical area courses: 12
THR A315  Playwriting Workshop (3)
THR A321  Meisner Acting Technique (3)
THR A325  Theatre Speech and Dialects (3)
THR A328  Acting Shakespeare (3)
THR A329  Combat for the Stage (3)
THR A357  Costume Design and Construction II (3)
THR A376  CAD for the Arts (3)
THR A435  Directing II (3)
THR A440  Selected Topics in Performance (3)
THR A441  Selected Topics in Technical Theatre (3)
THR A495  Advanced Practicum: Technical (1-3)

Dance Option Concentration [214] credits:

a. Complete the following required courses (133 credits):
   - 2 credits of any 100- or 200-level dance (DNCE) performance course
     - DNCE A121 Fundamentals of Modern I  2
     - DNCE A170 Dance Appreciation  3
     - DNCE A262 Theory and Improvisation  3
     - DNCE A361 Approaches to Dance Composition  3
     - DNCE A395 Advanced Practicum: Performance  2

b. Complete [118] credits from the following performance area courses of which 4 credits must be 200 or above  118
   - DNCE A101 Fundamentals of Ballet I (2)
   - DNCE A121 Fundamentals of Modern I (2)
   - DNCE/THR A124 Dance for Musical Theatre I (2)
   - DNCE A131 Fundamentals of Music-Based Jazz I (2)
   - DNCE A145 Dances of the West African Diaspora I (2)
   - DNCE A147 Popular American Social Dance (2)
   - DNCE A151 Fundamentals of Tap I (1)
   - DNCE A205 Fundamentals of Ballet II (2)
   - DNCE A223 Fundamentals of Modern II (2)
   - DNCE/THR A224 Dance for Musical Theatre II (2)
   - DNCE A234 Fundamentals of Music-Based Jazz II (2)
   - DNCE A245 Dances of the West African Diaspora II (2)
   - DNCE A253 Beginning Tap II (1)
   - DNCE A290 Selected Topics in Dance
   - DNCE A321 Intermediate Modern I (2)
   - DNCE A322 Intermediate Modern II (2)
   - DNCE A365 Dance Repertory and Performance I (3)
   - DNCE A395 Advanced Practicum: Performance (1-3)
   - DNCE A465 Advanced Performance and Choreography Workshop (3)
Minor, Theatre

Students majoring in another subject who wish to minor in Theatre must complete the following requirements. A total of 18 credits is required for the minor in Theatre.

1. Complete the following required courses (9 credits):
   - THR A121 Introduction to Acting 3
   - THR A131 Theatrical Production Techniques 3
   - THR A411 History of the Theatre I (3) 3
   - or
   - THR A412 History of the Theatre II (3) 3
   - Theatre electives 3

2. Choose 9 credits from any 200-level or above Theatre course offerings excluding Theatre Practicum 9

Minor, Dance

Students majoring in another subject who wish to minor in Dance must complete the following requirements. A total of 21 credits is required for the minor. Theatre majors with a dance emphasis are not eligible for a dance minor.

1. Complete the following required courses (17 credits):
   - DNCE A170 Dance Appreciation 3
   - DNCE A262 Theory and Improvisation 3
   - DNCE A361 Approaches to Dance Composition 3
   - DNCE A370 Interdisciplinary Dance Studies: Issues and Methods 3
   - DNCE A 395 Advanced Practicum: Performance (1-3) 2
   - THR A131 Theatrical Production Techniques 3

2. And choose 4 more credits from the following courses: 4
   - DNCE A101 Fundamentals of Ballet I (2)
   - DNCE A121 Fundamentals of Modern I (2)
   - DNCE/
   - THR A124 Dance for Musical Theatre I (2)
   - DNCE A131 Fundamentals of Music-Based Jazz I (2)
   - DNCE A145 Dances of the West African Diaspora I (2)
   - DNCE A147 Popular American Social Dance (2)
   - DNCE A151 Fundamentals of Tap I (1)
   - DNCE A205 Fundamentals of Ballet II (2)
   - DNCE A223 Fundamentals of Modern II (2)
   - DNCE/
   - THR A224 Dance for Musical Theatre II (2)
   - DNCE A234 Fundamentals of Music-Based Jazz II (2)
   - DNCE A245 Dances of the West African Diaspora II (2)
   - DNCE A253 Beginning Tap II (1)
   - DNCE A321 Intermediate Modern I (2)
   - DNCE A322 Intermediate Modern II (2)
   - DNCE A365 Dance Repertory and Performance I (3)
   - DNCE A465 Advanced Performance and Choreography Workshop (3)
   - DNCE A475 Dance Repertory and Performance II (3)
FACULTY

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Fran Lautenberger, Professor Emeritus
Katherine Kramer, Term Assistant Professor, kkramer1003@uaa.alaska.edu
# Course Action Request

University of Alaska Anchorage
Proposal to Initiate, Add, Change, or Delete a Course

## 1. School or College
AS CAS

## 2. Course Prefix
JPN

## 3. Course Number
A490

## 4. Previous Course Prefix & Number
N/A

## 5. Credits/CEUs
3.0

## 6. Contact Hours
(Lecture + Lab)
(3+0)

## 6. Complete Course Title
Selected Topics: Studies in Japanese Literature and Culture

ST: JPN Lit and Culture

## 7. Type of Course
- [X] Academic
- [ ] Preparatory/Development
- [ ] Non-credit
- [ ] CEU
- [ ] Professional Development

## 8. Type of Action:
- [X] Add
- [ ] Change
- [ ] Delete

If a change, mark appropriate boxes:
- [ ] Prefix
- [ ] Credits
- [ ] Contact Hours
- [ ] Title
- [ ] Repeat Status
- [ ] Grading Basis
- [ ] Cross-Listed/Stacked
- [ ] Course Description
- [ ] Course Prerequisites
- [ ] Co-requisites
- [ ] Other Restrictions
- [ ] Registration Restrictions
- [ ] Class
- [ ] Level
- [ ] College
- [ ] Major

## 9. Repeat Status
- Yes
- # of Repeats: 2
- Max Credits: 9

## 10. Grading Basis
- [X] A-F
- [ ] P/NP
- [ ] NG

## 11. Implementation Date
From: Fall/2014
To: 9999/9999

## 12. Cross Listed with

## 13a. Impacted Courses or Programs:
List any programs or college requirements that require this course.

<table>
<thead>
<tr>
<th>Impacted Program/Course</th>
<th>Catalog Page(s)</th>
<th>Date of Coordination</th>
<th>Chair/Coordinator Contacted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. BA, International Studies</td>
<td>113-114</td>
<td>11/25/13</td>
<td>Prof. Dorn Van Dommelen</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Initiator Name (typed): Hiroko Harada
Initiator Signed Initials: ____________ Date: ____________

## 13b. Coordination Email
Date: November 25, 2013

submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

## 13c. Coordination with Library Liaison
Date: November 25, 2013

## 14. General Education Requirement
Mark appropriate box:
- [ ] Oral Communication
- [ ] Written Communication
- [ ] Quantitative Skills
- [ ] Humanities
- [ ] Fine Arts
- [ ] Social Sciences
- [ ] Natural Sciences
- [ ] Integrative Capstone

## 15. Course Description
(suggested length 20 to 50 words)

Focuses on intensive study of authors, literary movements, periods, and genres in historical and cultural contexts. Enhances Japanese language skills in reading, listening, writing, speaking, and cross-cultural literacy. Special Note: May be repeated twice for credit with change in subtitle. Course conducted in Japanese.

## 16a. Course Prerequisite(s) (list prefix and number)
JPN A302 with a minimum grade of "C"

## 16b. Test Score(s)
N/A

## 16c. Co-requisite(s) (concurrent enrollment required)
N/A

## 16d. Other Restriction(s)

<table>
<thead>
<tr>
<th>College</th>
<th>Major</th>
<th>Class</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## 17. Mark if course has fees

## 18. Mark if course is a selected topic course

## 19. Justification for Action
Japanese Program is expanding its upper-division course offerings to meet student demand.

Initiator (faculty only) Date

Hiroko Harada
Initiator (TYPE NAME)

[ ] Approved
[ ] Disapproved

Dean/Director of School/College Date

[ ] Approved
[ ] Disapproved

Department Chairperson Date

[ ] Approved
[ ] Disapproved

Undergraduate/Graduate Academic Board Chairperson Date

[ ] Approved
[ ] Disapproved

Provost or Designee Date
I. Initiation Date:  February 25, 2014

II. Course Information:
   A. College:  College of Arts and Sciences
   B. Course Title:  Selected Topics: Studies in Japanese Literature and Culture
   C. Course Subject/Number:  JPN A490
   D. Credit Hours:  3.0
   E. Contact Time:  3 + 0 hours per week
   F. Grading Information:  A-F
   G. Course Description:  Focuses on intensive study of authors, literary movements, periods, and genres in historical and cultural contexts. Enhances Japanese language skills in reading, listening, writing, speaking, and cross-cultural literacy. Special Note: May be repeated twice for credit with change in subtitle. Course conducted in Japanese.

   H. Status of Course Relative to Degree or Certificate Programs:
      Course may be used as an elective to satisfy the upper-division requirement of a Japanese major and minor.

   I. Course Attributes:  Applies toward the upper-division requirement for Japanese majors and minors.

   J. Lab Fees:  Yes

   K. Coordination:  UAA Faculty List Serve

   L. Course Prerequisite:  JPN A302 with a minimum grade of “C”

III. Instructional Goals and Student Learning Outcomes:

   A. Instructional Goals:  The instructor will
      1. Conduct the class in Japanese, soliciting student collaboration via discussion of course material.
      2. Present literary, historical, and cultural background relevant to the author, period, literary movement or genre selected as the focus of the course.
3. Introduce appropriate disciplinary approaches and terminology for the interpretation of the material selected as the focus of the course.
4. Guide students in critically analyzing and interpreting the reading material selected as the focus of the course.

B. **Student Learning Outcomes and Assessment Methods:**

<table>
<thead>
<tr>
<th>Student Learning Outcomes: Upon successful completion of the course, students will be able to…</th>
<th>Assessment Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrate enhancement and refinement of oral skills in Japanese.</td>
<td>Class discussions, Class presentations</td>
</tr>
<tr>
<td>Demonstrate proper use of discipline-specific terminology when interpreting the material studied in the course.</td>
<td>Exams and quizzes, Class discussions, Essays, Research papers</td>
</tr>
<tr>
<td>Demonstrate effective analytical writing skills in Japanese through the interpretation of the material studied in the course.</td>
<td>Essays, Research papers, Exams and quizzes</td>
</tr>
<tr>
<td>Demonstrate appropriate understanding of literary, historical, and cultural background relevant to the author, period, literary movement or genre studied in the course.</td>
<td>Exams and quizzes, Class discussions, Class presentations, Essays, Research papers</td>
</tr>
</tbody>
</table>

IV. **Course Activities:**
This course reflects a balance of learner-centered, small-group collaboration as well as instructor-delivered lesson format based on extensive reading assignments from authentic Japanese literary and/or cultural artifacts.

V. **Course-level Justification:**
Course requires prior introduction to the formal study of college Japanese language at the upper-division level to ensure the success of the student, and builds upon the knowledge of fundamental concepts refined in JPN A302.

VI. **Sample Course Outline:** The following outline focuses on Matsuo Basho’s *Oku no hosomichi* as one possible version of the course.

A. General overview of haiku
B. Introduction to Basho’s life and literary work
C. Importance of *Oku no hosomichi* in the Japanese culture, philosophy and literary tradition
D. Comparative analysis of Basho’s haiku with poetry of the world
E. Appreciation and discussion of *Oku no hosomichi*
VII. Suggested texts:


VIII. Bibliography:


*Classic Texts
# Course Action Request

## University of Alaska Anchorage

Proposal to Initiate, Add, Change, or Delete a Course

## 1. School or College

**AS CAS**

## 2. Course Prefix

**SPAN**

## 3. Course Number

**A320**

## 4. Previous Course Prefix & Number

## 5. Credits/CEUs

- **3.0**

## 6. Complete Course Title

**Studies in Contemporary Hispanic Cultures**

**Contemporary Hispanic Cultures**

Abbreviated Title for Transcript (30 character)

## 7. Type of Course

- Academic
- Preparatory/Development
- Non-credit
- CEU
- Professional Development

## 8. Type of Action:

- Add
- Change
- Delete

If a change, mark appropriate boxes:

- Prefix
- Credits
- Course Number
- Contact Hours
- Title
- Repeat Status
- Grading Basis
- Cross-Listed/Stacked
- Course Description
- Course Prerequisites
- Test Score Prerequisites
- Co-requisites
- Other Restrictions
- Class
- Level
- General Education Requirement
- Other Restrictions
- Registration Restrictions
- Other Update CCG: Course Outline and Bibliography (please specify)

## 9. Repeat Status

- Yes
- # of Repeats: 1
- Max Credits: 6

## 10. Grading Basis

- A-F
- P/NP
- NG

## 11. Implementation Date

- semester/year

- From: Fall/2014
- To: 9999/9999

## 12. Cross Listed with

- Stacked with

Cross-Listed Coordination Signature

## 13. Impacted Courses or Programs:

List any programs or college requirements that require this course.

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<tbody>
<tr>
<td>1. International Studies, p.114, 2013-14 UAA Catalog</td>
<td>11/27/13</td>
<td>Dorn Van Dommelen, Chair</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Initiator Signed Initials:</th>
<th>Date:</th>
</tr>
</thead>
</table>

Initiator Name (typed): **Rebeca Maseda**

## 14. General Education Requirement

Mark appropriate box:

- Oral Communication
- Written Communication
- Quantitative Skills
- Humanities
- Fine Arts
- Social Sciences
- Natural Sciences
- Integrative Capstone

## 15. Course Description

(suggested length 20 to 50 words)

Examines contemporary Hispanic cultures through various media (printed, electronic, and audiovisual). Critical analysis through a variety of disciplinary methodologies (e.g. historical, cultural, artistic); terminology also explored and developed. Additionally enhances Spanish language skills in writing, reading, speaking, and listening.

Special note: Course taught in Spanish, and may be repeated once for credit with change of subtitle.

## 16. Course Prerequisite(s)

(list prefix and number or test code and score)

- SPAN A302 with a minimum grade of "C"

## 17. Mark if course has fees

- ☒

## 18. Mark if course is a selected topic course

- ☐

## 19. Justification for Action

Course is being changed from 4.0 to 3.0 credits given that students are now able to complete course E-Portfolio Projects independently and effectively outside of laboratory classroom with new software platforms. With this one-credit reduction, course will now better accommodate student demand and course scheduling timeslots at the upper-division level without compromising any course content material or Student Learning Outcomes.
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<tbody>
<tr>
<td>Rebeca Maseda, Ph.D.</td>
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University of Alaska Anchorage
Course Content Guide
Department of Languages
SPAN A320
Studies in Contemporary Hispanic Cultures

I. Initiation Date: January 13, 2014

II. Course Information:
   A. College: College of Arts and Sciences
   B. Course Title: Studies in Contemporary Hispanic Cultures
   C. Course Subject/Number  SPAN A320
   D. Credit Hours: 3.0
   E. Contact Time: 3 + 0 hours per week
   F. Grading Information: A-F
   G. Course Description: Examines contemporary Hispanic cultures through various media (printed, electronic, and audiovisual). Critical analysis through a variety of disciplinary methodologies (e.g. historical, cultural, artistic); terminology also explored and developed. Additionally enhances Spanish language skills in writing, reading, speaking, and listening.
   Special note: Course is conducted in Spanish, and may be repeated once for credit with change of subtitle.
   H. Status of Course Relative to Degree or Certificate Programs:
      Course may be used as an elective to satisfy the upper-division requirement of a Spanish major or minor.
   I. Course Attributes: Applies toward the upper-division requirement for Spanish majors and minors.
   J. Lab Fees: Yes
   K. Coordination: UAA Faculty List Serve
   L. Course Prerequisite: SPAN A302 with a minimum grade of “C”

III. Instructional Goals and Defined Student Learning Outcomes:

   Instructional Goals: The instructor will
      1. Conduct the class in Spanish, soliciting student collaboration via discussion of course material.
2. Present representative authentic media and relate them to the cultural contexts in which they were composed.

3. Enhance stylistic and rhetorical skills through engagement with a variety of works.

4. Guide students in critically analyzing and interpreting cultural artifacts using appropriate disciplinary approaches and terminology.

<table>
<thead>
<tr>
<th>Defined Student Learning Outcomes:</th>
<th>Assessment Methods:</th>
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<tbody>
<tr>
<td>Demonstrate comprehension of class instruction.</td>
<td>Class participation and discussion</td>
</tr>
<tr>
<td>Identify representative contemporary works and relate them to the cultural context in which they were composed.</td>
<td>Quizzes, Exams, Oral Presentations, and Papers</td>
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<td>Demonstrate analytical skills in Spanish through engagement with cultural artifacts.</td>
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<tr>
<td>Apply appropriate disciplinary approaches and terminology in investigative analyses executed in the target language.</td>
<td>Final Project Portfolio and Oral Presentation</td>
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</table>

IV. Course Activities:
This course reflects a balance of learner-centered, small-group collaboration as well as instructor-delivered lesson format.

V. Course-level Justification:
Course requires prior formal study of college Spanish language at the upper-division level.

VI. Course Outline:
The following is a possible version of the course: “Diverse Voices: Peninsular Society and Culture.” This course addresses the sociocultural realities of Spain with a focus on linguistic and cultural diversity and delves into a variety of topics from cross-cultural perspectives.

1.0 Daily Life, Social Conventions, and Economy

1.1 Employment

1.2 Gastronomy and eating etiquettes

1.3 Pastimes, holidays and celebrations

1.4 Conversational and behavioral taboos
1.5 Life conditions

1.6 Housing conditions and social assistance

1.7 Education

1.8 Resources

1.9 Migration

2.0 Social relations

2.1 Gender

2.2 Family

2.3 Generations

2.4 Communities

2.5 Work situations

2.6 Administration and government institutions

2.7 Political and religious groups

3.0 Values, beliefs, and attitudes

3.1 Social class and class division

3.2 Security, institutions, tradition and social change

3.3 Historical figures and representative events

3.4 Minorities

3.5 National identity

3.6 Foreign diplomacy

3.7 Politics, arts, religion, and humor

4.0 Entertainment

4.1 Music and dance

4.2 Classical and contemporary cinema
4.3 Theater

4.4 Radio and television

4.5 Internet

4.6 Sports

VII. Suggested texts


VIII. Bibliography


Bravo Bosch, M.C. "Lava más blanco, o la publicidad en la clase de E/LE."


Tran. Ministerio de Educación, Cultura y Deporte. Madrid: 


10/01/13.


Print.


Memorandum

To: Undergraduate Academic Board
From: Department of Mathematics and Statistics
Date: 4/22/2014
Re: Degree Requirement Change

The Department of Mathematics and Statistics is proposing the following changes to the Bachelor of Arts, Mathematics and Bachelor of Science, Mathematics.

The department is adding the requirement that every student submit a portfolio before graduation. The portfolio is being added for the purpose of assessment. The department assessment already uses portfolios for assessment: this change allows them to be collected for the degree rather than in classes.
### 1a. School or College
AS CAS

### 1b. Department
Mathematics and Statistics

### 2. Complete Program Title/Prefix
BA Mathematics

### 3. Type of Program
Choose one from the appropriate drop down menu:
- Undergraduate: Bachelor of Arts
- Graduate: CHOOSE ONE

This program is a Gainful Employment Program: ☐ Yes or ☐ No

### 4. Type of Action:
- PROGRAM
  - Add
  - Change
  - Delete
- PREFIX
  - Add
  - Change
  - Inactivate

### 5. Implementation Date (semester/year)
From: 08/14 To: 9999

### 6a. Coordination with Affected Units
Department, School, or College: CAS
Initiator Name (typed): Mark Fitch
Initiator Signed Initials: _________ Date:________________

### 6b. Coordination Email submitted to Faculty Listserv (uaa-faculty@lists.uaa.alaska.edu)
Date: 3/25/14

### 6c. Coordination with Library Liaison
Date: 3/25/14

### 7. Title and Program Description - Please attach the following:
- ☐ Cover Memo
- ☒ Catalog Copy in Word using the track changes function

### 8. Justification for Action
Necessary for program assessment

Initiator (faculty only) Date
Mark Fitch
Initiator (TYPE NAME)

Approved Disapproved
Dean/Director of School/College Date

Approved Disapproved
Undergraduate/Graduate Academic Date

Approved Disapproved
Board Chair Date

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2. Complete Program Title/Prefix

BS Mathematics

3. Type of Program

Choose one from the appropriate drop down menu:

- Undergraduate: Bachelor of Science
- Graduate: CHOOSE ONE

This program is a Gainful Employment Program: ☐ Yes or ☑ No

4. Type of Action:

- PROGRAM:
  - ☑ Add
  - ☐ Change
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Program Portfolio for Mathematics Catalog Copy

a. Complete one of the following options: (unchanged)
b. All Mathematics majors must take a standardized test of knowledge of mathematics approved by the Mathematics faculty for the purpose of evaluating program effectiveness. There is no minimum score required for graduation. This test will normally be taken during the senior year.
c. All Mathematics majors must complete a portfolio demonstrating their mathematics knowledge. There is no grade for this requirement. The portfolio will be submitted in the semester prior to graduation and the semester of graduation.
d. A total of 120 credits is required for the degree, of which 42 credits must be upper division.

MATHEMATICS

Social Sciences Building (SSB), Room 154, (907) 786-1744/786-4824
www.uaa.alaska.edu/mathematicalsciences

The Department of Mathematical Sciences offers a Bachelor of Science degree and a Bachelor of Arts degree in Mathematics.

Each degree has two options: the Traditional Option and the Secondary Teaching Preparation Option. The Traditional Option in the baccalaureate degree programs in Mathematics offer an excellent foundation for any career involving theoretical or applied mathematics. Well-trained mathematicians are in demand in many sectors of society including business, finance, education, computing, and government. The Traditional Option also prepares a student for graduate study in the mathematical sciences. Both the Traditional Option (with appropriately chosen electives) and the Secondary Teaching Preparation Option satisfy NCATE standards, and prepare a student to teach mathematics at the high school level.

In addition, the Department of Mathematical Sciences offers courses and programs for those students who wish to:

• Obtain an Associate of Applied Science degree
• Obtain an Associate of Arts degree
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• Study mathematics for use in another discipline
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Students graduating with a Bachelor of Science in Mathematics or a Bachelor of Arts in Mathematics will be able to:

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• Demonstrate an ability to construct proofs and solve problems using deductive logic, data analysis, computation, modeling, and connections.
• Demonstrate an ability to read, write, and speak mathematics.
• Be cognizant of their mathematical knowledge, of mathematics around them, and the need for life-long learning.

Honors in Mathematics

Students majoring in Mathematics are eligible to graduate with departmental honors if they satisfy the following requirements:

1. Meet the requirements for Graduation with Honors as listed in Chapter 7.
2. Meet the requirements for a BA/BS degree in Mathematics.
3. Earn a grade point average of 3.50 or above in the major requirements.
4. Complete a minimum of 12 upper division credits required for the major in residence.

**Bachelor of Arts, Mathematics**

**Admission Requirements**
Complete the Baccalaureate Degree Programs Admission Requirements listed in Chapter 7.

**Graduation Requirements**
Students must complete the following graduation requirements.

**A. General University Requirements**
Complete the General University Requirements for Baccalaureate degrees listed at the beginning of this chapter.

**B. General Education Requirements**
Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

**C. College of Arts and Sciences Requirements**
Complete the College of Arts and Sciences Requirements listed at the beginning of the CAS section.

**D. Major Requirements**
Students pursuing a Bachelor of Arts degree in Mathematics may choose from two options:

1. Complete the following core courses (28 Credits)
   - CS A109 Computer Programming 3-4
     (Languages Vary) (3)
     or
   - CS A110 Java Programming (3)
     or
   - CS A111 Visual Basic.Net Programming (3)
     or
   - CSCE A201 Computer Programming I (4)
   - MATH A200 Calculus I 4
   - MATH A201 Calculus II 4
   - MATH A202 Calculus III 4
   - MATH A215 Introduction to Mathematical Proofs 3
   - MATH A303 Introduction to Modern Algebra 3
   - MATH A314 Linear Algebra 3
   - STAT A307 Probability and Statistics 4

2. Complete one of the following options:
   **Traditional Option (21 Credits)**
   - MATH A302 Ordinary Differential Equations 3
   - MATH A321 Analysis of Several Variables 3
   - MATH A324 Advanced Calculus 3
   - MATH A410 Introduction to Complex Analysis (3) 3
     or
   - MATH A422 Partial Differential Equations (3)
   a. Complete three additional courses from the following list (9 credits):
      - MATH A305 Introduction to Geometries (3)
MATH A306 Discrete Methods (3)
MATH A371 Stochastic Processes (3)
MATH A407 Mathematical Statistics I (3)
MATH A408 Mathematical Statistics II (3)
MATH A410 Introduction to Complex Analysis (3)
MATH A420 History of Mathematics (3)
MATH A422 Partial Differential Equations (3)
MATH A426 Numerical Methods (3)
MATH A430 Concepts of Topology (3)
MATH A490A* Selected Topics in Pure Mathematics (3)
MATH A490B* Selected Topics
in Applied Mathematics (3)
STAT A308 Intermediate Statistics
for the Sciences (3)
STAT A402 Scientific Sampling (3)
STAT A403 Regression Analysis (3)
STAT A404 Analysis of Variance (3)
STAT A405 Nonparametric Statistics (3)
STAT A407 Time Series Analysis (3)
STAT A408 Multivariate Statistics (3)
*A maximum of 6 credits of MATH A490A and/or
MATH A490B may be applied to the degree requirements.

b. All Mathematics majors must take a standardized test of knowledge of mathematics approved by the Mathematics
faculty for the purpose of evaluating program effectiveness. There is no minimum score required for graduation.
This test will normally be taken during the senior year.
c. All Mathematics majors must complete a portfolio demonstrating their mathematics knowledge. There is no grade
for this requirement. The portfolio will be normally be submitted in the semester of graduation.
d. A total of 120 credits is required for the degree, of which 42 credits must be upper division.

Secondary Teaching Preparation Option (15 Credits)
The Secondary Teaching Preparation Option is intended for students interested in pursuing Secondary Teacher
Certification to teach mathematics at the middle school and high school level. To obtain Secondary Teacher Certification, an
approved Teacher Preparation Program must be successfully completed through the College of Education. Students
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MATH A305 Introduction to Geometries 3
MATH A306 Discrete Methods 3
MATH A420 History of Mathematics 3
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MATH A302 Ordinary Differential Equations (3)
MATH A321 Analysis of Several Variables (3)
MATH A324 Advanced Calculus (3)
MATH A371 Stochastic Processes (3)
MATH A407 Mathematical Statistics I (3)
MATH A408 Mathematical Statistics II (3)
MATH A410 Introduction to Complex Analysis (3)
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Bachelor of Science, Mathematics

Admission Requirements
Complete the Baccalaureate Degree Programs Admission Requirements listed at Languages Vary the beginning of this chapter.

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   - MATH A420 History of Mathematics (3)
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   - MATH A426 Numerical Methods (3)
   - MATH A430 Concepts of Topology (3)
   - MATH A490A Selected Topics in Pure Mathematics (3)
   - MATH A490B Selected Topics in Applied Mathematics (3)

   STAT A308 Intermediate Statistics for the Sciences (3)
   - STAT A402 Scientific Sampling (3)
   - STAT A403 Regression Analysis (3)
   - STAT A404 Analysis of Variance (3)
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**B. General Education Requirements**
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<td>Probability and Statistics</td>
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</table>

2. Complete one of the following options: **Traditional Option (21 Credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH A302</td>
<td>Ordinary Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH A321</td>
<td>Analysis of Several Variables</td>
<td>3</td>
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<tr>
<td>MATH A324</td>
<td>Advanced Calculus</td>
<td>3</td>
</tr>
<tr>
<td>MATH A410</td>
<td>Introduction to Complex Analysis</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH A422</td>
<td>Partial Differential Equations</td>
<td>3</td>
</tr>
</tbody>
</table>

   a. Complete three additional courses from the following list (9 credits):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH A305</td>
<td>Introduction to Geometries</td>
<td>3</td>
</tr>
</tbody>
</table>
MATH A306 Discrete Methods (3)
MATH A371 Stochastic Processes (3)
MATH A407 Mathematical Statistics I (3)
MATH A408 Mathematical Statistics II (3)
MATH A410 Introduction to Complex Analysis (3)
MATH A420 History of Mathematics (3)
MATH A422 Partial Differential Equations (3)
MATH A426 Numerical Methods (3)
MATH A430 Concepts of Topology (3)
MATH A490A* Selected Topics in Pure Mathematics (3)
MATH A490B* Selected Topics in Applied Mathematics (3)
STAT A308 Intermediate Statistics for the Sciences (3)
STAT A402 Scientific Sampling (3)
STAT A403 Regression Analysis (3)
STAT A404 Analysis of Variance (3)
STAT A405 Nonparametric Statistics (3)
STAT A407 Time Series Analysis (3)
STAT A408 Multivariate Statistics (3)

*A maximum of 6 credits of MATH A490A and/or MATH A490B may be applied to the degree requirements.

b. All Mathematics majors must take a standardized test of knowledge of mathematics approved by the Mathematics faculty for the purpose of evaluating program effectiveness. There is no minimum score required for graduation. This test will normally be taken during the senior year.

b.c. All Mathematics majors must complete a portfolio demonstrating their mathematics knowledge. There is no grade for this requirement. The portfolio will be normally be submitted in the semester of graduation.

c.d. A total of 120 credits is required for the degree, of which 42 credits must be upper division.

Secondary Teaching Preparation Option (15 Credits)

The Secondary Teaching Preparation Option is intended for students interested in pursuing Secondary Teacher Certification to teach mathematics at the middle school and high school level. To obtain Secondary Teacher Certification, an approved Teacher Preparation Program must be successfully completed through the College of Education. Students choosing the Secondary Teacher Preparation Option should obtain advising from an academic advisor in the College of Education no later than the beginning of the junior year.

MATH A305 Introduction to Geometries 3
MATH A306 Discrete Methods 3
MATH A420 History of Mathematics 3

a. Complete two additional courses from the following list (6 credits):

MATH A302 Ordinary Differential Equations (3)
MATH A321 Analysis of Several Variables (3)
MATH A324 Advanced Calculus (3)
MATH A371 Stochastic Processes (3)
MATH A407 Mathematical Statistics I (3)
MATH A408 Mathematical Statistics II (3)
MATH A410 Introduction to Complex Analysis (3)
MATH A422 Partial Differential Equations (3)
MATH A426 Numerical Methods (3)
MATH A430 Concepts of Topology (3)
MATH A490A* Selected Topics in Pure Mathematics (3)
MATH A490B* Selected Topics in Applied Mathematics (3)
STAT A308 Intermediate Statistics for the Sciences (3)
STAT A402 Scientific Sampling (3)
STAT A403 Regression Analysis (3)
STAT A404 Analysis of Variance (3)
STAT A405 Nonparametric Statistics (3)
STAT A407 Time Series Analysis (3)
STAT A408 Multivariate Statistics (3)

*A maximum of 6 credits of MATH A490A and/or MATH A490B may be applied to the degree requirements.

b. All Mathematics majors must take a standardized test of knowledge of mathematics approved by the Mathematics faculty for the purpose of evaluating program effectiveness. There is no minimum score required for graduation. This test will normally be taken during the senior year.

b.c. All Mathematics majors must complete a portfolio demonstrating their mathematics knowledge. There is no grade for this requirement. The portfolio will be normally be submitted in the semester of graduation.

c.d. A total of 120 credits is required for the degree, of which 42 credits must be upper division.

Bachelor of Science, Mathematics

Admission Requirements
Complete the Baccalaureate Degree Programs Admission Requirements listed at Languages Vary the beginning of this chapter.

Graduation Requirements
Students must complete the following graduation requirements.

A. General University Requirements
Complete the General University Requirements for Baccalaureate degrees listed at the beginning of this chapter.

B. General Education Requirements
Complete the General Education Requirements for Baccalaureate Degrees listed in Chapter 7.

C. College of Arts and Sciences Requirements
Complete the College of Arts and Sciences Requirements listed at the beginning of the CAS section.

D. Major Requirements
Students pursuing a Bachelor of Science in Mathematics may choose from two options:

1. Complete the following core courses (28 Credits)

   CS A109    Computer Programming
             (Languages Vary) (3) 3-4
   or
   CS A110    Java Programming (3)
   or
   CS A111    Visual Basic .Net Programming (3)
   or
   CSCE A201  Computer Programming I (4)
MATH A200 Calculus I 4
MATH A201 Calculus II 4
MATH A202 Calculus III 4
MATH A215 Introduction to Mathematical Proofs 3
MATH A303 Introduction to Modern Algebra 3
MATH A314 Linear Algebra 3
STAT A307 Probability and Statistics 4

2. Complete one of the following options:

   **Traditional Option (21 Credits)**

   MATH A302 Ordinary Differential Equations 3
   MATH A321 Analysis of Several Variables 3
   MATH A324 Advanced Calculus 3
   MATH A410 Introduction to Complex Analysis (3) 3
   or
   MATH A422 Partial Differential Equations (3)

   a. Complete three additional courses from the following list (9 credits):

      MATH A305 Introduction to Geometries (3)
      MATH A306 Discrete Methods (3)
      MATH A371 Stochastic Processes (3)
      MATH A407 Mathematical Statistics I (3)
      MATH A408 Mathematical Statistics II (3)
      MATH A410 Introduction to Complex Analysis (3)
      MATH A420 History of Mathematics (3)
      MATH A422 Partial Differential Equations (3)
      MATH A426 Numerical Methods (3)
      MATH A430 Concepts of Topology (3)
      MATH A490A* Selected Topics in Pure Mathematics (3)
      MATH A490B* Selected Topics in Applied Mathematics (3)
      STAT A308 Intermediate Statistics for the Sciences (3)
      STAT A402 Scientific Sampling (3)
      STAT A403 Regression Analysis (3)
      STAT A404 Analysis of Variance (3)
      STAT A405 Nonparametric Statistics (3)
      STAT A407 Time Series Analysis (3)
      STAT A408 Multivariate Statistics (3)

      *A maximum of 6 credits of MATH A490A and/or MATH A490B may be applied to the degree requirements.

   b. All Mathematics majors must take a standardized test of knowledge of mathematics approved by the Mathematics faculty for the purpose of evaluating program effectiveness. There is no minimum score required for graduation. This test will normally be taken during the senior year.

   c. A total of 120 credits is required for the degree, of which 42 credits must be upper division.

   **Secondary Teaching Preparation Option (15 Credits)**

   The Secondary Teaching Preparation Option is intended for students interested in pursuing Secondary Teacher Certification to teach mathematics at the middle school and high school level. To obtain Secondary Teacher Certification, an
approved Teacher Preparation Program must be successfully completed through the College of Education. Students choosing the Secondary Teaching Preparation Option should obtain advising from an academic advisor in the College of Education no later than the beginning of the junior year.

MATH A305  Introduction to Geometries  3
MATH A306  Discrete Methods  3
MATH A420  History of Mathematics  3
a. Complete two additional courses from the following list (6 credits):
   MATH A302  Ordinary Differential Equations (3)
   MATH A321  Analysis of Several Variables (3)
   MATH A324  Advanced Calculus (3)
   MATH A371  Stochastic Processes (3)
   MATH A407  Mathematical Statistics I (3)
   MATH A408  Mathematical Statistics II (3)
   MATH A410  Introduction to Complex Analysis (3)
   MATH A422  Partial Differential Equations (3)
   MATH A426  Numerical Methods (3)
   MATH A430  Concepts of Topology (3)
   MATH A490A* Selected Topics in Pure Mathematics (3)
   MATH A490B* Selected Topics in Applied Mathematics (3)
   STAT A308  Intermediate Statistics for the Sciences (3)
   STAT A402  Scientific Sampling (3)
   STAT A403  Regression Analysis (3)
   STAT A404  Analysis of Variance (3)
   STAT A405  Nonparametric Statistics (3)
   STAT A407  Time Series Analysis (3)
   STAT A408  Multivariate Statistics (3)
   *A maximum of 6 credits of MATH A490A and/or MATH A490B may be applied to the degree requirements.

b. All Mathematics majors must take a standardized test of knowledge of mathematics approved by the Mathematics faculty for the purpose of evaluating program effectiveness. There is no minimum score required for graduation. This test will normally be taken during the senior year.

c. A total of 120 credits is required for the degree, of which 42 credits must be upper division.
This course has always been on the books; however, in recent years, it has only been taught at Mat-Su College. Many students are unprepared to take ENGL A111 when they begin their college studies; PRPE A108 and ENGL A109 help prepare students to succeed in ENGL A111. While students who place appropriately can take either course, ENGL A109 students focus on creating texts in electronic environments. This is particularly important since ENGL A111 courses are most frequently taught online or in electronic classrooms. ENGL A109 students also write purpose-driven essays, such as analytical or evaluative papers, which will help them adjust to assignments in ENGL A111. Finally, for those PRPE A108 students who need more practice in essay writing before moving on to ENGL A111, ENGL A109 offers an opportunity to do so without having to retake a course.

Most of the changes made to ENGL A109 have been made to update pedagogy and to increase the use of electronics in the course. The types of assignments have also been updated to reflect recent trends in composition studies.
Course Action Request
University of Alaska Anchorage
Proposal to Initiate, Add, Change, or Delete a Course

<table>
<thead>
<tr>
<th>1a. School or College</th>
<th>1b. Division</th>
<th>1c. Department</th>
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<tbody>
<tr>
<td>AS CAS</td>
<td>AHUM Division of Humanities</td>
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<th>3. Course Number</th>
<th>4. Previous Course Prefix &amp; Number</th>
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<th>5b. Contact Hours (Lecture + Lab)</th>
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6. Complete Course Title
Introduction to Writing in Academic Contexts
Intro Writing Acad Contexts

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<th>8. Type of Action:</th>
<th>9. Repeat Status No</th>
<th>10. Grading Basis</th>
<th>11. Implementation Date</th>
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10. Grading Basis:
- A-F
- P/NP
- NG

11. Implementation Date:
- semester/year
- From: Fall/2014
- To: 9999/

12. Cross Listed with:
- N/A

13a. Impacted Courses or Programs:
List any programs or college requirements that require this course.

13b. Coordination Email:
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison:
Date: 4/24/12

14. General Education Requirement:
Mark appropriate box:
- Oral Communication
- Written Communication
- Quantitative Skills
- Humanities
- Fine Arts
- Social Sciences
- Natural Sciences
- Integrative Capstone

15. Course Description (suggested length 20 to 50 words):
Emphasizes longer essays, annotated bibliography, and digital literacy skills in a computerized environment. Teaches students to analyze audience, purpose, and context; to apply conventions of academic writing and basic research; and to use sound revision strategies (including editing for grammar and punctuation). Special Note: Serves as an alternative or complement to PRPE A108 and prepares students for ENGL A111.

16a. Course Prerequisite(s) (list prefix and number or test code and score):
(PRPE A086 with a minimum grade of C) OR
[Accuplacer combined Reading Comp and Sentence Skills score of 140-169]

16b. Co-requisite(s) (concurrent enrollment required):
N/A

16c. Automatic Restriction(s):
- College
- Major
- Class
- Level

16d. Registration Restriction(s) (non-codable):
N/A

17. Mark if course has fees standard ENGL fees:

18. Mark if course is a selected topic course:

19. Justification for Action:
To update course CCG and pedagogy.
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<th>Date</th>
<th></th>
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<tbody>
<tr>
<td>Sheri Denison</td>
<td></td>
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Initiator (TYPE NAME)

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Dean/Director of School/College

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Department Chair

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<tr>
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Undergraduate/Graduate Academic Board Chair

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College/School Curriculum Committee Chair

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Provost or Designee

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</table>
I. Revision Date: February 25, 2014

II. Course Information
A. College: College of Arts and Sciences
B. Course Prefix: ENGL—English
C. Course Number: ENGL A109
D. Credits: 3.0
E. Contact Hours: (3 + 0)
F. Course Title: Introduction to Writing in Academic Contexts
G. Grading Basis: A-F
H. Implementation Date: Fall 2014
I. Cross Listing/Stacking: N/A
J. Course Description: Emphasizes longer essays, annotated bibliography, and digital literacy skills in a computerized environment. Teaches students to analyze audience, purpose, and context; to apply conventions of academic writing and basic research; and to use sound revision strategies (including editing for grammar and punctuation). Special Note: Serves as an alternative or complement to PRPE A108 and prepares students for ENGL A111.
K. Special Attributes: N/A
L. Course Prerequisites: [PRPE A086 with a minimum grade of C] OR [Accuplacer combined Reading Comp and Sentence Skills score of 140-169]
M. Course Fees: Yes

III. Course Level Justification
ENGL A109 prepares students for successful completion of ENGL A111 and serves as an introductory course to college composition.

IV. Instructional Goals and Student Learning Outcomes
A. Instructional Goals:
The instructor will:
- Familiarize students with digital environments, including basic word processing tools and Blackboard.
- Demonstrate basic research strategies, including information literacy practices, source handling, and APA documentation.
- Introduce principles of academic writing generated for specific purposes, including summary and response, explanatory, analytical, and persuasive writing.
- Demonstrate effective revision strategies.
B. Student Learning Outcomes and Assessment Methods. The student will:

<table>
<thead>
<tr>
<th>Student Learning Outcomes</th>
<th>Assessment Methods</th>
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</thead>
<tbody>
<tr>
<td>Construct papers using word processing tools and submit assignments on Blackboard</td>
<td>Word-processed essays, group work, electronic discussion boards, quizzes, and/or class exercises</td>
</tr>
<tr>
<td>Analyze, synthesize, summarize, and use sources responsibly</td>
<td>Word-processed essays, annotated bibliographies, group work, quizzes, reading journals, and/or class exercises</td>
</tr>
<tr>
<td>Prepare papers in a variety of academic genres, each focused on fulfilling a specific purpose</td>
<td>Word-processed essays, short writing assignments, and exams</td>
</tr>
<tr>
<td>Analyze written texts prior to revision, revise papers, and proofread for appropriate use of Standard American English</td>
<td>Peer reviews, drafts, exams, quizzes, and/or class exercises</td>
</tr>
</tbody>
</table>

V. Guidelines for Evaluation or Assessment Methods
Evaluation procedures are at the discretion of the instructor and will be discussed at the first class meeting of the semester. Students will be evaluated on some or all of the following: peer reviews and drafts, essays, exercises, reading journals, quizzes and exams, and attendance and participation.

VI. Course Outline

A. Digital Environment
   1. Electronic techniques for writing papers
   2. Electronic techniques for in-class writing
   3. Electronic techniques for revising writing
   4. Electronic course platforms such as Blackboard

B. Academic Writing
   1. Rhetorical situation
   2. Summaries
   3. Reading responses
   4. Annotated bibliographies
   5. Writing generated by specific purposes as selected from the following choices (generally, 3-4 per semester):
      a. Explanatory essays
      b. Analytical essays
c. Persuasive essays
d. Investigative essays
e. Evaluative essays
f. Observational essays
g. Research-supported essays (400-800 words)

C. Basic Research Strategies
   1. Libraries and databases
   2. Internet sources
   3. Source evaluation and information literacy
   4. APA documentation

D. Conventions and Style of Standard American English
   1. Structure
   2. Correctness
   3. Error patterns
   4. Academic style

E. Revision
   1. Drafting
      a. Technology aids
      b. Drafting and revising
   2. Coherence and focus
   3. Purpose
   4. Editing and proofreading

VII. Suggested Texts


VIII. Bibliography


Course Action Request
University of Alaska Anchorage
Proposal to Initiate, Add, Change, or Delete a Course

<table>
<thead>
<tr>
<th>1a. School or College</th>
<th>EN SOENGR</th>
<th>1b. Division</th>
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<th>Civil Engineering</th>
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<th>2. Course Prefix</th>
<th>3. Course Number</th>
<th>4. Previous Course Prefix &amp; Number</th>
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<th>5b. Contact Hours</th>
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<th>10. Grading Basis</th>
<th>A-F</th>
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<th>with</th>
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<th>13a. Impacted Courses or Programs</th>
<th>List any programs or college requirements that require this course.</th>
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<tr>
<td>submitted to Faculty Listserv:</td>
<td>(<a href="mailto:uaa-faculty@lists.ualaska.edu">uaa-faculty@lists.ualaska.edu</a>)</td>
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<th>14. General Education Requirement</th>
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<th>Humanities</th>
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<tr>
<td>Mark appropriate box:</td>
<td>Fine Arts</td>
<td>Social Sciences</td>
<td>Natural Sciences</td>
<td>Integrative Capstone</td>
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<th>15. Course Description</th>
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<th>16e. Registration Restriction(s) (non-codable)</th>
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<th>Initiator Name (typed):</th>
<th>Osama A. Abaza</th>
<th>Initiator Signed Initials:</th>
<th>Date:</th>
</tr>
</thead>
</table>

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<tr>
<th>Initiator (faculty only)</th>
<th>GHULAM H. BHAM</th>
<th>Date</th>
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<tr>
<th>Disapproved</th>
<th>Department Chairperson</th>
<th>Date</th>
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<tr>
<th>Disapproved</th>
<th>Curriculum Committee Chairperson</th>
<th>Date</th>
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| Approved |  |
|---------||

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<tr>
<th>Disapproved</th>
<th>Undergraduate/Graduate Academic Board Chairperson</th>
<th>Date</th>
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<tr>
<th>Approved</th>
<th>Provost or Designee</th>
<th>Date</th>
</tr>
</thead>
</table>

354
I. Date Initiated: March 31, 2014, Revised April 8, 2014

II. Course Information:
   a. College: Engineering
   b. Course Prefix: CE
   c. Course Number: A405
   d. Number of credits and contacts hours: Three (3)
   e. Course title: Transportation Engineering I
   f. Grading basis: Letter grade A-F
   g. Implementation date: Spring 2015
   h. Cross listing: None
   i. Stacking: None
   j. Course Description: Introduction to planning and engineering of transportation systems and their functions, components, and operation. Those systems include highways, airports, railroads, and water transportation. Emphasis is on highway system planning and traffic operations.
   k. Course attributes: None
   l. Course prerequisites: [ES A210 and GEO 155] with a minimum grade of C.
   m. Course fees: Std CoEng Fee

III. Course Level Justification
This course is founded upon a chain of prerequisite courses typical of the first three years of a BS Civil Engineering program. The course requires the ability to synthesize knowledge to develop designs for transportation system components.

IV. Topical Course Outline
A. Introduction to transportation systems engineering
   1. Introduction to the transportation sector
   2. Transportation systems characteristics
   3. Modes of transportation
   4. Fields of transportation engineering
   5. Transportation systems issues and challenges
B. Characteristics of the driver, pedestrian, vehicle and road
   1. Driver characteristics
   2. Perception-reaction process
   3. Pedestrian characteristics
   4. Vehicle characteristics
   5. Road characteristics
C. Traffic engineering studies
   1. Spot speed studies
   2. Volume studies
   3. Travel time and delay studies
   4. Parking studies
D. Fundamental principles of traffic flow
   1. Traffic flow elements
   2. Flow-Density relationships
E. Intersection design and controls
   1. Types and design of at-grade intersections
   2. Concepts of traffic control
   3. Conflict points at intersections
   4. Types of intersection control
   5. Signal timing for different color indications
F. Introduction to transportation planning
   1. Basic elements of transportation planning
   2. Urban transportation planning
   3. Forecasting travel demand
   4. Evaluation of transportation alternatives
G. Introduction to railroad engineering
   1. Types
   2. Location and route layout
   3. The railway cross-section
   4. Geometrical design
H. Introduction to airport engineering
   1. Airport components
   2. The airport passenger terminal
   3. Principles of airport design
I. Introduction to water engineering
   1. Inland waterways
   2. Design of harbors
   3. Design of ports
J. Pipeline transportation
V. Instructional Goals and Student Learning Outcomes

A. Instructional goals: The instructor will:
   1. Introduce transportation systems and characteristics.
   2. Introduce fundamentals in the different fields of transportation.
   3. Address contemporary issues and challenges in transportation engineering.
   4. Introduce the basic characteristics of roadway elements, and principles of intersection design and controls.
   5. Introduce the different traffic engineering studies and the fundamentals of traffic flow.
   6. Address the basic analysis of route surveying, location, and evaluation.
   7. Introduce the transportation planning processes.
   8. Introduce the components of railroads, airports, and water transportation.
   9. Introduce communication skills needed in engineering practice.
   10. Introduce a wider perspective and diversity of the engineering profession when dealing with the social, economic, and environmental aspects in transportation engineering.

B. Student learning outcomes and assessment: Students who successfully complete this course will be able to:

<table>
<thead>
<tr>
<th>Student learning outcome</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Identify the components of different transportation systems.</td>
<td>Exams, quizzes, and homework assignments.</td>
</tr>
<tr>
<td>2. Recognize and review fields of transportation engineering and identify issues of concern.</td>
<td>Exams, quizzes, homework assignments, and presentation of a review of a scientific paper.</td>
</tr>
<tr>
<td>3. Review the different traffic studies and discuss intersection design issues.</td>
<td>Exams, quizzes, homework assignments, and presentation of scientific paper.</td>
</tr>
<tr>
<td>4. Review the basic issues in transportation planning.</td>
<td>Exams, quizzes, and homework assignments.</td>
</tr>
<tr>
<td>5. Discuss the components of railroads, airports, and water transportation.</td>
<td>Exams, quizzes, and homework assignments.</td>
</tr>
<tr>
<td>6. Prepare as a team a course project/paper in transportation.</td>
<td>Presentation of a course project/paper.</td>
</tr>
<tr>
<td>7. Review a journal article in transportation.</td>
<td>Written review of a journal article.</td>
</tr>
</tbody>
</table>

VI. Suggested Text:
VII. Alternative texts and references:


VIII. Manual References


IX. Web References

- [Airport Technology](http://www.airport-technology.com)
- [American Association of State Highway and Transportation Officials (AASHTO)](http://www.transportation.org)
- [American Public Transit Association](http://www.apta.com)
- [Automotive Technology](http://www.automotive-technology.com)
- [Institute of Transportation Engineers](http://www.ite.org)
- [ITS Research Center, Texas A&M](http://www.rce.tamu.edu)
- [Transportation Research Board](http://www.trb.org)
- [U.S. Bureau of Transportation Statistics](http://www.bts.gov)
- [U.S. Department of Transportation](http://www.dot.gov)
- [For other web references check:](http://www.yousefi.netfirms.com/tra.html)
**1a. School or College**  
EN SOENGR

**1b. Division**  
No Division Code

**1c. Department**  
Civil Engineering

**2. Course Prefix**  
CE

**3. Course Number**  
A406

**4. Previous Course Prefix & Number**  
N/A

**5a. Credits/CEUs**  
3.0

**5b. Contact Hours (Lecture + Lab)**  
(3.0+0.0)

**6. Complete Course Title**  
Transportation Engineering II

**Abbreviated Title for Transcript (30 character)**

**7. Type of Course**  
- ☒ Academic
- ☐ Preparatory/Development
- ☐ Non-credit
- ☐ CEU
- ☐ Professional Development

**8. Type of Action:**  
- ☐ Add
- ☒ Change
- ☐ Delete

**If a change, mark appropriate boxes:**

- ☐ Prefix
- ☐ Credits
- ☐ Title
- ☐ Grading Basis
- ☒ Course Description
- ☐ Test Score Prerequisites
- ☐ Other Restrictions
- ☐ Class
- ☐ Level
- ☐ College
- ☐ Major
- ☐ Other CCG (please specify)

**9. Repeat Status No**  
# of Repeats  
Max Credits

**10. Grading Basis**  
- ☒ A-F
- ☐ P/NP
- ☐ NG

**11. Implementation Date**  
Semester/year

From: Spring/2015  
To: 9999

**12. Cross Listed with**  
Stacked with

**13a. Impacted Courses or Programs:** List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

<table>
<thead>
<tr>
<th>Impacted Program/Course</th>
<th>Catalog Page(s) Impacted</th>
<th>Date of Coordination</th>
<th>Chair/Coordinator Contacted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Civil Engineering</td>
<td>251</td>
<td>3/31/2014</td>
<td>Orson Smith</td>
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<td>2.</td>
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<td>3.</td>
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</table>

**Initiator Name (typed): Osama A. Abaza**  
Initiator Signed Initials: __________________________ Date: __________

**13b. Coordination Email**  
Date: nabaza@uua.alaska.edu

**13c. Coordination with Library Liaison**  
Date: 3/31/2014

**14. General Education Requirement**

Mark appropriate box:

- ☐ Oral Communication
- ☐ Written Communication
- ☐ Quantitative Skills
- ☐ Social Sciences
- ☐ Natural Sciences
- ☐ Humanities
- ☐ Integrative Capstone

**15. Course Description** *(suggested length 20 to 50 words)*

Introduce highway systems and its functions, components, and operation. Emphasis is on highway geometry, safety, operation, and pavement design.

**16a. Course Prerequisite(s) (list prefix and number)*

CE A405 with a minimum grade of C and concurrent with CE A435.

**16b. Test Score(s)**

N/A

**16c. Co-requisite(s) (concurrent enrollment required)**

N/A

**16d. Other Restriction(s)**

- ☒ Mark if course has fees Std CoEng Fee

**16e. Registration Restriction(s) (non-codable)**

N/A

**17. Mark if course is a selected topic course**

**19. Justification for Action**

Curriculum revisions

**Initiator (faculty only)**  
Date

**Approved**  
Dean/Director of School/College  
Date

**Disapproved**  
Undergraduate/Graduate Academic  
Date

**Department Chairperson**  
Date

**Approved**  
Board Chairperson  
Date

**Disapproved**  
Provost or Designee  
Date

**GHULAM H. BHAM**  
Initiator (TYPE NAME)

**Initiator** (TYPE NAME)

**Approved**  
Date

**Disapproved**  
Date

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COURSE CONTENT GUIDE

University Of Alaska Anchorage, College of Engineering

I. Date Initiated: March 31, 2014, Revised April 14, 2014

II. Course Information:
   a. College: Engineering
   b. Course Prefix: CE
   c. Course Number: A406
   d. Number of credits and contacts hours: Three (3)
   e. Course title: Transportation Engineering II
   f. Grading basis: Letter grade A-F
   g. Implementation date: Spring 2015
   h. Cross listing: None
   i. Stacking: None
   j. Course Description: Introduce highway systems and its functions, components, and operation. Emphasis is on highway geometry, safety, operation, and pavement design.
   k. Course attributes: None
   l. Course prerequisites: CE A405 with a minimum grade of C and concurrent with CE A435.
   m. Course fees: Std CoEng Fee

III. Course Level Justification
    This course is founded upon a chain of prerequisite courses typical of the first three years of a BS Civil Engineering program. The course requires the ability to synthesize knowledge to develop designs for highway system components.

IV. Topical Course Outline
   A. Highway surveys and location
      1. Principles of highway location
      2. Highway survey methods
      3. Highway earthwork
   B. Geometric design of highway facilities
      1. Factors influencing highway design
      2. Highway cross sectional elements
      3. Design of horizontal alignment
      4. Design of vertical alignment
      5. Bicycle facilities
      6. Parking facilities
C. Traffic safety
   1. Crash statistics and crash databases
   2. Crash causality and countermeasures
   3. Strategic highway safety plans
   4. Performance measures
   5. Safety effectiveness evaluation methods
   6. Geographic Information Systems (GIS) and traffic safety

D. Highway capacity and quality of service
   1. Determine capacity
   2. Determine Level of Service (LOS)

E. Highway drainage
   1. Highway drainage structures
   2. Subsurface drainage

F. Soil engineering for highway design
   1. Soil characteristics
   2. Classification of soils for highway use
   3. Soil survey for highway construction
   4. Soil compaction
   5. Tests for pavement design

G. Bituminous materials
   1. Properties of asphalt materials
   2. Tests for asphalt materials
   3. Introduction to Superpave systems

H. Design of flexible pavements
   1. Components of flexible pavements
   2. Principles of flexible pavement design
   3. Thickness design

I. Design of rigid pavements
   1. Materials used
   2. Joints in concrete pavements
   3. Types of rigid pavements
   4. Principles of rigid pavement design; stresses in rigid pavements
   5. Thickness design

J. Introduction to pavement management

V. Instructional Goals and Student Learning Outcomes
   A. Instructional goals: The instructor will introduce:
      1. Skills in transportation systems and characteristics.
      2. Characteristics of roadway elements.
      3. Highway surveys.
      4. Highway geometrical design.
      5. Traffic safety.
      6. Highway capacity and quality of service.
8. Materials used in highway construction.
9. Issues in design of flexible and rigid pavements.
10. Communication skills needed in engineering practice.

B. Student learning outcomes and assessment: Students who successfully complete this course will be able to:

<table>
<thead>
<tr>
<th>Student learning outcome</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Identify the highway design.</td>
<td>Exams, quizzes, and homework assignments.</td>
</tr>
<tr>
<td>2. Identify components of highway geometrical design.</td>
<td>Exams, quizzes, homework assignments, and presentation of scientific paper and/or transportation project.</td>
</tr>
<tr>
<td>3. Identify and discuss issues in traffic safety.</td>
<td>Exams, quizzes, homework assignments, and presentation of scientific paper and/or transportation project.</td>
</tr>
<tr>
<td>4. Determine capacity and quality of service of a highway facility.</td>
<td>Exams, quizzes, homework assignments, and presentation of scientific paper and/or transportation project.</td>
</tr>
<tr>
<td>5. Identify the issues in drainage and highway materials.</td>
<td>Exams, quizzes, homework assignments, and presentation of scientific paper and/or transportation project.</td>
</tr>
<tr>
<td>6. Realize basic issues in highway pavement design.</td>
<td>Exams, quizzes, and homework assignments.</td>
</tr>
<tr>
<td>7. Prepare as a team a course project/paper in transportation.</td>
<td>Presentation of a course project/paper.</td>
</tr>
<tr>
<td>8. Review a journal article in transportation.</td>
<td>Written review of a journal article.</td>
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</table>

VI. Suggested Text:

VII. Manual References
Highway Safety Manual, (2010), AASHTO.
Standard specification for transportation materials, methods sampling and of testing (2007), AASHTO.
VIII. Web References

- American Association of State Highway and Transportation Officials (AASHTO)  
  [www.transportation.org](http://www.transportation.org)
- Institute of Transportation Engineers  
  [www.ite.org](http://www.ite.org)
- ITS Research Center, Texas A&M  
  [www.rce.tamu.edu](http://www.rce.tamu.edu)
- Transportation Research Board  
  [www.trb.org](http://www.trb.org)
- U.S. Bureau of Transportation Statistics  
  [www.bts.gov](http://www.bts.gov)
- U.S. Department of Transportation  
  [www.dot.gov](http://www.dot.gov)
- For other web references check:  
  [www.yousefi.netfirms.com/tra.html](http://www.yousefi.netfirms.com/tra.html)
TO: Undergraduate Academic Board

FR: Tim Jester, Associate Professor: Elementary Education

DT: April 18, 2014

SB: Catalog Changes to the Post-baccalaureate Certificate, Elementary Education (with Teacher Certification, K-6)

The Elementary Education Preservice Program in the College of Education is proposing changes to the catalog copy of the Post-baccalaureate Certificate, Elementary Education program. The catalog is being revised to reflect changes made to the BA in Elementary Education in recent years, the program platform on which the Post-baccalaureate program is based.

Summary of Changes:

- Language updates to reflect changes in the College of Education’s structure (e.g., the Department of Teaching and Learning no longer exists).

- Admission to Field Experiences to align with the new structure of the Elementary preservice program.

- Reduce total required credits required for the Post-baccalaureate program to incorporate the revised Elementary program’s education courses and field experience structure and provide a more expedient track for post-bacc students to earn an Elementary teaching license—all National and State standards will still be addressed through required entrance exam, program courses, program assessments, and review of prior coursework.
Program/Prefix Action Request  
University of Alaska Anchorage  
Proposal to Initiate, Add, Change, or Delete a Program of Study or Prefix

<table>
<thead>
<tr>
<th>1a. School or College</th>
<th>1b. Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>EA COE</td>
<td>Undergraduate and Initial Certification: Elementary Education</td>
</tr>
</tbody>
</table>

2. Complete Program Title/Prefix  
Post-Baccalaureate Certificate, Elementary Education (with Teacher Certification, K-6)

3. Type of Program  
Choose one from the appropriate drop down menu: Undergraduate: or Graduate:  
Post Baccalaureate Certificate  
CHOOSE ONE

This program is a Gainful Employment Program:  
☑ Yes  or  ☐ No

4. Type of Action:  
☑ PROGRAM  
☐ PREFIX  
☐ Add  
☑ Change  
☐ Delete  
☐ Add  
☐ Change  
☐ Inactivate

5. Implementation Date (semester/year)  
From: Fall/2014  
To: Spring/2999

6a. Coordination with Affected Units  
Department, School, or College: Department of Undergraduate and Initial Certification; Math Department; Special Education (program)  
Initiator Name (typed): Tim Jester  
Initiator Signed Initials: _________  
Date:________________

6b. Coordination Email submitted to Faculty Listserv (uaa-faculty@lists. uaa.alaska.edu)  
Date: 3/5/14

6c. Coordination with Library Liaison  
Date: 3/5/14

7. Title and Program Description - Please attach the following:  
☑ Cover Memo  
☑ Catalog Copy in Word using the track changes function

8. Justification for Action  
Revising catalog copy to reflect changes made to the Elementary preservice curriculum in 2010-2011.

Initiator (faculty only)  
Initiator (TYPE NAME)

☐ Approved  
☑ Disapproved  
Dean/Director of School/College  
Date

☑ Disapproved  
☑ Approved  
Undergraduate/Graduate Academic Board Chair  
Date

☑ Disapproved  
☑ Approved  
Department Chair  
Date

☐ Approved  
☑ Disapproved  
Provost or Designee  
Date

☑ Disapproved  
☑ Approved  
College/School Curriculum Committee Chair  
Date
Post-Baccalaureate Certificate, Elementary Education  
(with Teacher Certification, K-6)

Those students who already have a baccalaureate degree may obtain an Elementary Education Post-Baccalaureate Certificate by completing the following requirements.

Program Student Learning Outcomes

The Post-Baccalaureate Certificate in Elementary Education prepares professionals who already have baccalaureate degrees to work with children in elementary school (K-6). Successful completion of the program leads to an institutional recommendation for initial teacher certification with an endorsement in Elementary (K-6).

Student learning outcomes for the program are based on the Standards for Alaska’s Teachers located at www.eed.state.ak.us/standards and the Association for Childhood Education International (ACEI) standards located at www.acei.org. Within a culturally responsive framework, program graduates will:

1. Construct learning opportunities that support K-6 students’ development, acquisition of knowledge, and motivation.
2. Design and implement curriculum that supports K-6 students’ learning of language arts, science, mathematics, social studies, the arts, health, and physical education.
3. Plan and implement instruction based on knowledge of K-6 students, learning, theory, curriculum, and community.
4. Create appropriate instructional opportunities to address diversity.
5. Use teaching strategies that encourage development of critical thinking and problem solving.
6. Foster active engagement in learning and create supportive learning environments.
7. Use effective communication strategies to foster inquiry and support interaction among K-6 students.
8. Use formal and informal assessments to inform and improve instructional practice.
9. Reflect on practice and engage in professional growth activities.
10. Establish positive collaborative relationships with families, colleagues, and the community.

Admission Requirements

Admission to the University of Alaska Anchorage

See information on Post-Baccalaureate Certificate programs at the beginning of this chapter. Complete the UAA Undergraduate Application for Admission, available on the UAA website at www.uaa.alaska.edu/admissions.

Admission to the College of Education’s Elementary Post-Baccalaureate Certificate, Elementary Education Program

In order to be admitted to the program, applicants must meet the following requirements:

1. Complete an application for admission to the Elementary Education Post-Baccalaureate Certificate Program. (For financial aid purposes, applicants must adhere to the deadlines established for the UAA Undergraduate Application for Admission.)
2. Have a cumulative grade point average of 2.75 for the baccalaureate degree from a regionally accredited institution.
3. Have completed a course in child development. An example of an UAA course that meets this requirement is EDSE A212. An alternate course will also be considered.
4. Undergraduate preparation in content areas relevant to Elementary Education: English, mathematics, science, social sciences, art, physical education, and health.
5. Successfully complete the Praxis I examination or other Alaska Early Education and Development (EED) approved basic competency exam requirement (www.eed.state.ak.us/TeacherCertification). Contact the College of Education for current passing scores.

Note: Admission to the program is competitive. Qualified applicants are accepted on a space-available basis.
Admission to Field Experiences

Admission to field experiences is separate from admission to the program and may be limited by community partners. See Field Placements located at the beginning of the College of Education section of this chapter. Applications for EDEL A495A, Elementary Education Practicum II, and Elementary Internship courses must be submitted by the semester before enrolling in EDEL A495A. Qualified applicants are accepted on a space-available basis. Admission to the Department of Undergraduate and Initial Certification does not guarantee admission to the field experiences.

The Elementary Programs Admission Committee determines a candidate’s readiness to enroll in all field experiences. The candidate must realize that requirements set forth below constitute minimum preparation, and it may be the judgment of the committee that the candidate needs further work to develop content knowledge or skills to work with children.

EDEL A495A, Elementary Practicum II and Internship Application Criteria

EDEL A495A, Elementary Education Practicum II, increases the time in the classroom and the planning and teaching experiences, with focus on the classroom environment, math and science. The Elementary Internship includes a capstone seminar and extensive, supervised teaching experiences in an elementary classroom. Emphasis is placed on meeting the Alaska Beginning Teacher Standards. Criteria include the following:

1. Meet all the requirements for and be admitted to the Department of Undergraduate and Initial Certification as an Elementary Education major.
2. Submit an application form for admission to Praticum II and Internship.
3. Participate in a screening interview, if requested.
4. Complete all prerequisite courses.
5. Successfully complete the Praxis II: Elementary Content Knowledge (0014). Contact Student Services for current passing scores.
6. Have a cumulative GPA of 2.75.
7. Have a GPA of 3.00 in Major Requirements.
8. Apply for the Student Teaching Authorization Certificate. This application includes fingerprinting and a criminal background check. Fee required. Contact Student Services for more information.
9. Have a current Student Teaching Authorization Certificate is necessary for Internship.

Note: Qualified applicants are accepted on a space-available basis. Admission to the Department of Teaching and Learning does not guarantee admission to the internship.

Academic Progress

All Elementary Education Post-Baccalaureate Certificate courses must be completed with a grade of C or higher in order to obtain an institutional recommendation for elementary teacher certification.

Graduation Requirements

Candidates must complete the following graduation requirements:

A. University Requirements for Post-Baccalaureate Certificates

Complete the University Requirements for Post-Baccalaureate Certificates listed at the beginning of this chapter.

B. Background Check Requirements

See Field Placements located at the beginning of the College of Education section of this chapter.

C. Major Requirements

1. Complete the following foundation area courses. (12 credits)

   Field experience in public schools required as part of most courses.

   EDFN A300  Philosophical and Social Context of American Education (3) 3
   or
   EDFN A304  Comparative Education (3)
   EDFN A301  Foundations of Literacy and Language Development (3)
   EDFN A478  Issues in Alaska Native Education, K-12 (3)
   EDSE A482  Inclusive Classrooms for All Children (3)

2. Complete the following method courses. Concurrent enrollment in a practicum is required. See an advisor for details. (13 credits)

   EDEL A327  Teaching Social Studies in
EDEL A325  Teaching Literacy in Elementary Schools 6
EDEL A426  Teaching Mathematics in Elementary Schools 3
EDEL A428  Teaching Science in Elementary Schools 2

3. Complete the following practicums, seminars, and internship. (14 credits)
   EDEL A395  Elementary Education Practicum I: Literacy and Social Studies 2
   EDEL A495A Elementary Education Practicum II: Mathematics and Science 3
   EDEL A492B Elementary Education Seminar III: Teaching Capstone 3
   EDEL A495B Elementary Education Internship 6

4. Satisfaction of all major requirements, totaling 39 credits, must be demonstrated through coursework completed either before or after the award of the baccalaureate degree. However, a minimum of 29 approved credits, including the courses EDEL A395, EDEL A495A and EDEL A495B must be completed after the award of the baccalaureate degree.

Institutional Recommendation, Elementary Teacher Certification (K - 6)

Following are the requirements for an institutional recommendation:
1. All course requirements completed with a grade of C or higher.
2. Cumulative GPA of 3.00 in the Elementary Education Post-Baccalaureate Certificate courses.
3. Passing scores on the Praxis I and II examinations.
4. Internship satisfactorily completed.
Post-Baccalaureate Certificate, Elementary Education  
(with Teacher Certification, K-6)

Those students who already have a baccalaureate degree may obtain an Elementary Education Post-Baccalaureate Certificate by completing the following requirements.

Program Student Learning Outcomes

Student learning outcomes for the program are based on the Standards for Alaska’s Teachers located at www.eed.state.ak.us/standards and the Association for Childhood Education International (ACEI) standards located at www.acei.org. The Post-Baccalaureate Certificate in Elementary Education prepares professionals who already have baccalaureate degrees to work with children in elementary school (K-6). Successful completion of the program leads to an institutional recommendation for initial teacher certification with an endorsement in Elementary (K-6).

Student learning outcomes for the program are based on the Standards for Alaska’s Teachers located at www.eed.state.ak.us/standards and the Association for Childhood Education International (ACEI) standards located at www.acei.org. Within a culturally responsive framework, program graduates will:

1. Construct learning opportunities that support K-6 students’ development, acquisition of knowledge, and motivation.
2. Design and implement curriculum that supports K-6 students’ learning of language arts, science, mathematics, social studies, the arts, health, and physical education.
3. Plan and implement instruction based on knowledge of K-6 students, learning, theory, curriculum, and community.
4. Create appropriate instructional opportunities to address diversity.
5. Use teaching strategies that encourage development of critical thinking and problem-solving.
6. Foster active engagement in learning and create supportive learning environments.
7. Use effective communication strategies to foster inquiry and support interaction among K-6 students.
8. Use formal and informal assessments to inform and improve instructional practice.
9. Reflect on practice and engage in professional growth activities.
10. Establish positive collaborative relationships with families, colleagues, and the community.

Admission Requirements

Admission to the University of Alaska Anchorage

See information on Post-Baccalaureate Certificate programs at the beginning of this chapter. Complete the UAA Undergraduate Application for Admission, available on the UAA website at www.uaa.alaska.edu/admissions.

Admission to the College of Education’s Elementary Post-Baccalaureate Certificate, Elementary Education Program—Department of Teaching and Learning—Undergraduate and Initial Certification

Admission to the Department of Teaching and Learning is a prerequisite for all education coursework with the exceptions of EDEN A101 Introduction to Education, EDEN A200 Philosophical and Social Context of American Education, and EDEN A304 Comparative Education. In order to be admitted to the Department of Teaching and Learning—Undergraduate and Initial Certification as an Elementary Education Post-Baccalaureate Certificate candidate program, applicants must meet the following requirements:

1. Complete an Department of Teaching and Learning—Undergraduate and Initial Certification—College of Education application for admission to the Elementary Education Post-Baccalaureate Certificate Program by one of the following dates: March 1, August 1, or November 1. (Please be aware that the admission deadlines for UAA may vary from those of the Department of Teaching and Learning—Undergraduate and Initial Certification. For financial aid purposes, applicants must adhere to the deadlines established for the UAA Undergraduate Application for Admission.)
2. Have a cumulative grade point average of 3.00 for the bachelor’s degree from a regionally accredited institution.
3. Have completed a course in child development. An example of an UAA course that meets this requirement is EDSE A212. An alternate course will also be considered.
4. Undergraduate preparation in content areas relevant to Elementary Education: English, mathematics, science, social sciences, art, physical education, and health.

5. Successfully complete the Praxis I examination, or other Alaska Early Education and Development (EED) approved basic competency exam requirement (www.eed.state.ak.us/TeacherCertification), and Praxis II: Elementary Content Knowledge examination. With the exceptions of EDFN A101 Introduction to Education, EDFN A201 Philosophical and Social Context of American Education, and EDFN A301 Comparative Education, students may not enroll in education courses without passing these examinations at the level established by the College of Education. Contact the College of Education for current passing scores.


Note: Admission to the Department of Teaching and Learning Undergraduate and Initial Certification is competitive. Qualified applicants are accepted on a space-available basis.

Admission to Field Experiences

Admission to field experiences is separate from admission to the program and may be limited by community partners. See Field Placements located at the beginning of the College of Education section of this chapter. Applications for EDEL A495A, Elementary Education Practicum II, and Elementary Internship courses must be submitted by the semester before enrolling in EDEL A495A. Qualified applicants are accepted on a space-available basis. Contact the Department of Undergraduate and Initial Certification for current passing scores.

The Elementary Programs Admission Committee determines a candidate’s readiness to enroll in all field experiences. The candidate must realize that requirements set forth below constitute minimum preparation, and it may be the judgment of the committee that the candidate needs further work to develop content knowledge or skills to work with children.

EDEL A495A, Elementary Practicum II and Internship Application Criteria

EDEL A495A, Elementary Education Practicum II, increases the time in the classroom and the planning and teaching experiences, with focus on the classroom environment, math and science. The Elementary Internship includes a capstone seminar and extensive, supervised teaching experiences in an elementary classroom. Emphasis is placed on meeting the Alaska Beginning Teacher Standards. Criteria include the following:

1. Meet all the requirements for and be admitted to the Department of Undergraduate and Initial Certification as an Elementary Education major.

2. Submit an application form for admission to Internship, including a resume and letter of introduction, by the department’s published deadline for Practicum II and Internship.

3. Participate in a screening interview, if requested.

4. Complete all prerequisite courses.

5. Successfully complete the Praxis II: Elementary Content Knowledge (0014). Contact Student Services for current passing scores.

6. Have a cumulative GPA of 2.75.

7. Have a GPA of 3.00 in Major Requirements.

8. Apply for the Student Teaching Authorization Certificate. This application includes fingerprinting and a criminal background check. For required paperwork, contact COE Student Services for more information.


Admission to Internship

The Admission Committee has the responsibility of determining a candidate’s readiness to enroll in and continue progress in methods and the internship. The candidate must realize that standards set forth below constitute minimum preparation, and it may be the judgment of the committee that the candidate needs further work to develop content, methodology, or classroom experience.

1. Meet all the requirements for and be admitted to the Department of Teaching and Learning as an Elementary Education Post-Baccalaureate Certificate candidate.

2. Submit an application form for admission to methods and internship by February 15.

3. Submit one letter of recommendation from someone who can speak to the student’s potential as a future elementary teacher.

4. Demonstrate general content knowledge competency through successful completion of a baccalaureate degree and a passing score on Praxis II: Elementary Content Knowledge. Contact the College of Education for details.

5. Provide evidence of successful experience working with children.

6. Interview.

7. Initiate fingerprinting and criminal background check.
8. Provide evidence of current physical examination. This service is available free at the UAA Student Health and Counseling Center for current UAA students.

9. Maintain health insurance throughout internship. Students may purchase this insurance through UAA.

Note: Qualified applicants are accepted on a space-available basis. Admission to the Department of Teaching and Learning does not guarantee admission to the internship.

Academic Progress

All Elementary Education Post-Baccalaureate Certificate courses must be completed with a grade of C or higher in order to obtain an institutional recommendation for elementary teacher certification.

Graduation Requirements

Candidates must complete the following graduation requirements:

A. University Requirements for Post-Baccalaureate Certificates

Complete the University Requirements for Post-Baccalaureate Certificates listed at the beginning of this chapter.

B. Background Check Requirements

See Field Placements located at the beginning of the College of Education section of this chapter.

C. Major Requirements

It is recommended that candidates complete EDFN A101 Introduction to Education prior to enrolling in a 300-level education course.

1. Complete the following core foundation area courses. (21-12 credits)

   Field experience in public schools required as part of most courses.

   EDFN A300  Philosophical and Social Context of American Education (3) 3
   or
   EDFN A304  Comparative Education (3)
   EDFN A301  Foundations of Literacy and Language Development 3
   EDFN A302  Foundations of Educational Technology 2
   EDFN A303  Foundations of Teaching and Learning 3
   EDSE A212  Human Development and Learning Lab 1
   EDSE A479  Issues in Alaska Native Education, K-12 3
   EDSE A482  Inclusive Classrooms for All Children 3
   MATH A205  Communicating Mathematical Ideas 3

2. Complete the following method courses. Concurrent enrollment in a practicum internship may be required. See an advisor for details. See Admission to Internship. (19-13 credits)

   EDEL A327  Teaching Social Studies in Elementary Schools 2
   EDEL A425  Teaching Reading in Elementary Schools 4
   EDEL A325  Teaching Literacy in Elementary Schools 6
   EDEL A426  Teaching Mathematics in Elementary Schools 3
   EDEL A428  Teaching Science in Elementary Schools 2
   EDEL A430  Teaching Language Arts in
3. Complete the following practicums, seminars, and internships. (149 credits)

- **EDEL A395** Elementary Education Practicum I: Literacy and Social Studies 2
- **EDEL A495A** Elementary Education Practicum II: Mathematics and Science Internship I 3
- **EDEL A492B** Elementary Education Seminar III: Teaching Capstone 3
- **EDEL A495B** Elementary Education Internship (6-9) 6

4. Satisfaction of all major requirements, totaling 149 credits, must be demonstrated through coursework completed either before or after the award of the baccalaureate degree. However, a minimum of 29 approved credits, including the courses **EDEL A395**, **EDEL A495A** and **EDEL A495B** must be completed after the award of the baccalaureate degree.

Alaska certification note: If the candidate is seeking certification in the State of Alaska, the candidate must complete a state-approved Alaska studies course of **EDEL A478** Issues in Alaska Native Education, **K-12** or **HIST A341** Alaska History or **ANTH A400** Native of Alaska is recommended.

### Institutional Recommendation, Elementary Teacher Certification (K - 6)

Following are the requirements for an institutional recommendation:

1. All course requirements completed with a grade of C or higher.
2. Cumulative GPA of 3.00 in the Elementary Education Post-Baccalaureate Certificate courses.
3. Passing scores on the Praxis I and II examinations.
4. Internships satisfactorily completed.

### FACULTY

- Jeff Bailey, Professor, AFJGB@uaa.alaska.edu
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- Susan Barstow, Term Assistant Professor, AFSDB2@uaa.alaska.edu
- Liz Boario, Term Assistant Professor, ANLEB@uaa.alaska.edu
- Nancy Boxler, Term Assistant Professor, ANNJB1@uaa.alaska.edu
- Ellen Brigham, Term Assistant Professor, AFDTG@uaa.alaska.edu
- Robert Capiuzzo, Term Assistant Professor, AFMC@uaa.alaska.edu
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- Dean Konopasek, Associate Professor, AFDEK@uaa.alaska.edu
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- George Mastroyanis, Professor, AFGSM@uaa.alaska.edu
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- Ed McLain, Associate Professor, AFTEAM@uaa.alaska.edu
- Kathleen O’Dell, Professor Emerita, AFKDO@uaa.alaska.edu
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<th>1c. Department</th>
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<td>To: Fall/9999</td>
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<th>13a. Impacted Courses or Programs: List any programs or college requirements that require this course.</th>
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<td>Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at <a href="http://www.aaa.alaska.edu/governance">www.aaa.alaska.edu/governance</a>.</td>
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<th>13c. Coordination with Library Liaison</th>
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<td>Written Communication</td>
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<td>Quantitative Skills</td>
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<td>Social Sciences</td>
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<td>Natural Sciences</td>
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<tr>
<td>Theory and practice in research methods and analysis in animal behavior. Students conduct research in areas such as foraging behavior, communication, predator avoidance, sensory systems and social behaviors</td>
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<th>16a. Course Prerequisite(s): (list prefix and number or test code and score)</th>
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<th>16b. Co-requisite(s): (concurrent enrollment required)</th>
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| 17. ☑ Mark if course has fees |
|                               |

| 18. ☑ Mark if course is a selected topic course |
|                                               |

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<th>19. Justification for Action</th>
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<td>This course replaces the laboratory component of BIOL A441, which is being removed. This change is part of our overall curriculum revision, which seeks to align our degree with the core concepts and competencies outlined in Vision and Change in Undergraduate Biology Education (National Science Foundation and American Association for the Advancement of Science)</td>
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I. Date of Initiation: Spring 2014

II. Curriculum Action Request
A. College: College of Arts and Sciences
B. Course Prefix: BIOL
C. Course Number: A442
D. Number of Credits: 3
E. Contact Hours: 1+4
F. Course Title: Experiential Learning: Animal Behavior
G. Grading Basis: A-F
H. Implementation Date: Fall 2015
I. Cross-listed/Stacked: N/A
J. Course Description: Theory and practice in research methods and analysis in animal behavior. Students conduct research in areas such as foraging behavior, communication, predator avoidance, sensory systems and social behaviors.
K. Course Prerequisites: BIOL A273 with minimum grade of C
L. Course Co-requisites: BIOL A441
M. Other Restrictions: N/A
N. Registration Restrictions: N/A
O. Course Fees: Yes

III. Instructional Goals and Student Learning Outcomes
A. Instructional Goals. The instructor will:
   1. Provide an introduction to the scientific exploration of animal behavior including the history, theory, and methods.
   2. Offer the opportunity to watch animals in the wild with a scientist’s eyes and mind by thinking about their behavior in the context of natural selection and evolution.
   3. Give students hands on experiences collecting data using appropriate behavioral sampling techniques and interpreting data using appropriate statistical methods.
   4. Explain the components of effective communication, and provide assignments that allow the students to practice these skills.

   B. Student Learning Outcomes and Assessment Measures

<table>
<thead>
<tr>
<th>Student Learning Outcomes: Upon completion of this course, the student will be able to:</th>
<th>Assessment Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Apply the scientific process to formulate a question of interest in behavior to be tested in the field and/or laboratory.</td>
<td>Written assignments or oral presentations</td>
</tr>
<tr>
<td>2. Design and conduct an independent investigation to test hypotheses relating to animal behavior.</td>
<td>Written assignments and/or media assignments</td>
</tr>
<tr>
<td>3. Use relevant evidence gathered through</td>
<td>Written assignments</td>
</tr>
</tbody>
</table>
accepted scholarly methods and properly acknowledge sources of information

| 4. Use statistical analyses appropriate to the independent investigation. | Written assignments |
| 5. Effectively communicate one’s findings both verbally and in writing. | Written assignments and oral presentations |
| 6. Demonstrate critical thinking in the evaluation of scientific findings. | Written assignments, oral presentations, and classroom discussions |

IV. Course Level Justification
Designed for Biology and Natural Sciences majors as an elective undergraduate course comparable to 400-level animal behavior or behavioral ecology courses offered at other universities. This course covers the principle concepts essential to the student’s ability to succeed in graduate programs and career pathways relevant to the discipline of animal behavior.

V. Topical Course Outline
A. Introduction to methods of behavioral observation
   1. Scan sampling
   2. Focal animal sampling
   3. Ad lib sampling
   4. All occurrences sampling
B. Experimental design
C. Literature review
D. Pilot data collection
E. Project proposal
F. Data collection
G. Data analysis and statistics
H. Writing the scientific paper
I. Presenting the Results

VI. Suggested Texts

VII. Bibliography


### Course Action Request
University of Alaska Anchorage
Proposal to Initiate, Add, Change, or Delete a Course

<table>
<thead>
<tr>
<th>1a. School or College</th>
<th>1b. Division</th>
<th>1c. Department</th>
</tr>
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<tr>
<td>AS CAS</td>
<td>AMSC Division of Math Science</td>
<td>Biological Sciences</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Course Prefix</th>
<th>3. Course Number</th>
<th>4. Previous Course Prefix &amp; Number</th>
<th>5a. Credits/CEUs</th>
<th>5b. Contact Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL</td>
<td>A451</td>
<td>N/A</td>
<td>3</td>
<td>(3+0)</td>
</tr>
</tbody>
</table>

6. Complete Course Title
Microbial Biotechnology
Abbreviated Title for Transcript (30 character)

7. Type of Course
- [x] Academic
- [ ] Preparatory/Development
- [ ] Non-credit
- [ ] CEU
- [ ] Professional Development

8. Type of Action: [x] Add
If a change, mark appropriate boxes:
- [ ] Prefix
- [x] Course Number
- [x] Contact Hours
- [x] Repeat Status
- [x] Grade Basis
- [x] Cross-Listed/Stacked
- [ ] Course Prerequisites
- [ ] Co-requisites
- [ ] Test Score Prerequisites
- [ ] Registration Restrictions
- [ ] General Education Requirement

9. Repeat Status No  # of Repeats  Max Credits

10. Grading Basis
- [x] A-F
- [ ] P/NP
- [ ] NG

11. Implementation Date
    From: Fall/2015
    To: Fall/9999

12. [ ] Cross Listed with
    [ ] Stacked with
    [ ] Cross-Listed Coordination Signature

13a. Impacted Courses or Programs: List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.aaa.alaska.edu/governance.

**Impacted Program/Course** | **Date of Coordination** | **Chair/Coordinator Contacted**
---|---|---
1. | | |
2. | | |
3. | | |

13b. Coordination Email Date: 6Jan14 submitted to Faculty Listserv: (uaa-faculty@lists.aaa.alaska.edu)

13c. Coordination with Library Liaison Date: 6Jan14

14. General Education Requirement
Mark appropriate box:
- [x] Oral Communication
- [ ] Written Communication
- [ ] Quantitative Skills
- [ ] Humanities
- [ ] Fine Arts
- [ ] Social Sciences
- [ ] Natural Sciences
- [ ] Integrative Capstone

15. Course Description *(suggested length 20 to 50 words)*
Application of microbiology for improvement of human kind, including genetic engineering of microorganisms to produced products of importance to human health, microbe-based foods and beverages, microbe-based bio-control, biofuels and bioremediation

16a. Course Prerequisite(s) *(list prefix and number or test code and score)*
BIOL A340 with minimum grade of C

16b. Co-requisite(s) *(concurrent enrollment required)*

16c. Automatic Restriction(s)
- [ ] College
- [ ] Major
- [ ] Class
- [ ] Level

16d. Registration Restriction(s) *(non-codable)*

17. [ ] Mark if course has fees
18. [ ] Mark if course is a selected topic course

19. Justification for Action
This course is part of an overall revision of the Biological Sciences curriculum. The course description is being updated and the name is being change to better reflect the content of the course. Stacking with BIOL A651 is being removed (BIOL A651 is being deleted).

---

Initiator Name (typed): Khrys Duddleston  Initiator Signed Initials: _________ Date: __________

13b. Coordination Email Date: 6Jan14 submitted to Faculty Listserv: (uaa-faculty@lists.aaa.alaska.edu)

13c. Coordination with Library Liaison Date: 6Jan14

14. General Education Requirement
Mark appropriate box:
- [x] Oral Communication
- [ ] Written Communication
- [ ] Quantitative Skills
- [ ] Humanities
- [ ] Fine Arts
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15. Course Description *(suggested length 20 to 50 words)*
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16a. Course Prerequisite(s) *(list prefix and number or test code and score)*
BIOL A340 with minimum grade of C

16b. Co-requisite(s) *(concurrent enrollment required)*

16c. Automatic Restriction(s)
- [ ] College
- [ ] Major
- [ ] Class
- [ ] Level

17. [ ] Mark if course has fees
18. [ ] Mark if course is a selected topic course

19. Justification for Action
This course is part of an overall revision of the Biological Sciences curriculum. The course description is being updated and the name is being change to better reflect the content of the course. Stacking with BIOL A651 is being removed (BIOL A651 is being deleted).

---

Initiator (faculty only) Date

Initiator (TYPE NAME)

Approved  Disapproved

Dean/Director of School/College Date

Undergraduate/Graduate Academic Date

Board Chair

Approved  Disapproved

Provost or Designee Date
I. Date of Initiation: Spring 2014

II. Curriculum Action Request
A. College: College of Arts and Sciences
B. Course Prefix: BIOL
C. Course Number: A451
D. Number of Credits: 3
E. Contact Hours: 3+0
F. Course Title: Microbial Biotechnology
G. Grading Basis: A-F
H. Implementation Date: Fall 2015
I. Cross-listed/Stacked: N/A
J. Course Description: Application of microbiology for improvement of human kind, including genetic engineering of microorganisms to produce products of importance to human health, microbe-based foods and beverages, microbe-based bio-control, biofuels and bioremediation
K. Course Prerequisites: BIOL A340 with minimum grade of C.
L. Course Co-requisites: N/A
M. Other Restrictions: N/A
N. Registration Restrictions: N/A
O. Course Fees: No

III. Instructional Goals and Student Learning Outcomes
A. Instructional Goals. The instructor will:
   1. Present the principle concepts behind the applied use of microorganisms in a variety of fields
   2. Provide examples of the design, growth, and processing of microorganisms for human benefit
   3. Describe the production of microbial-based foods and beverages on a large scale
   4. Describe the use of microorganisms in agriculture and in reclamation of contaminated sites.
   5. Discuss the latest research findings relevant to the use of microorganism for improvement of human

B. Student Learning Outcomes and Assessment Measures

<table>
<thead>
<tr>
<th>Student Learning Outcomes: Upon completion of this course, the student will be able to:</th>
<th>Assessment Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Demonstrate understanding of the use of traditional and molecular techniques to manipulate the genetic make-up of microorganisms</td>
<td>Written assignments and examinations</td>
</tr>
<tr>
<td>2) Propose the construction of a genetically modified microorganism for release into the</td>
<td>Project, paper, oral presentation and in class discussions</td>
</tr>
<tr>
<td>Task</td>
<td>Assessment Methods</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>3) Evaluate the factors affecting the use of microorganisms in agriculture and bioremediation</td>
<td>Written assignments, in class discussions, examinations</td>
</tr>
<tr>
<td>4) Demonstrate understanding of the production of microbially-based foods and beverages</td>
<td>Written assignments, examinations</td>
</tr>
<tr>
<td>5) Evaluate the primary literature in applied microbiology and microbial biotechnology</td>
<td>Written assignments, examinations</td>
</tr>
</tbody>
</table>

IV. **Course Level Justification**
This course builds upon knowledge of microbiology, cell biology and genetics. It is equivalent to other 400-level courses in applied microbiology and microbial biotechnology at other universities.

V. **Topical Course Outline**
   A. Molecular Microbial Biotechnology
      1. Methods of strain development
         a. pre-recombinant DNA technology
         b. post-recombinant DNA technology
      2. Cloning
         a. bacteria
         b. yeast
      3. Expression of foreign DNA
      4. Growth of modified microbes
      5. Downstream processing
   B. Microbes as Living Factories
      1. Biocatalysis of useful products
      2. Large-scale production of proteins
      3. Organic synthesis
      4. Synthesis of optically pure drugs
      5. Antibiotics
      6. Polysaccharides and polyesters
      7. Food additives
   C. Microbial Enzymes
      1. Production and application
   D. Microbial-based foods and beverages
      1. Fermented foods
         a. Yogurt
         b. Cheese
         c. Sauerkraut
         d. Kimchi
         e. Chocolate
      2. Fermented beverages
         a. Beer
         b. Wine
         c. Distilled liquors
E. Plant-Microbe Interactions
1. Protection of plants from frost
2. Improvement of crop yields,
3. *A. tumefaciens* in the production of transgenic plants

F. Microbes and Energy
1. Biomass to fuels
   a. Ethanol
   b. Methane
2. Bacterial batteries

G. Environmental Applications
1. Biodegradation and bioremediation
2. Sewage and wastewater treatment

VI. Suggested Texts

VII. Bibliography
Primary literature from journals such as: Applied and Environmental Microbiology, Applied Microbiology and Biotechnology, Journal of Applied Microbiology


**Course Action Request**  
**University of Alaska Anchorage**  
Proposal to Initiate, Add, Change, or Delete a Course

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<td>A453</td>
<td>N/A</td>
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<td>(2+4)</td>
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</table>

**6. Complete Course Title**  
Experiential Learning: Microbial Ecology  
EL: Microbial Ecology  
Abbreviated Title for Transcript (30 character)

**7. Type of Course**  
- [ ] Academic  
- [ ] Preparatory/Development  
- [ ] Non-credit  
- [ ] CEU  
- [ ] Professional Development

**8. Type of Action:**  
- □ Add  
- □ Change  
- □ Delete

*If a change, mark appropriate boxes:*  
- □ Prefix  
- □ Credits  
- □ Title  
- □ Grading Basis  
- □ Course Description  
- □ Test Score Prerequisites  
- □ Contact Hours  
- □ Repeat Status  
- □ Cross-Listed/Stacked  
- □ Course Prerequisites  
- □ Co-requisites  
- □ Registration Restrictions  
- □ General Education Requirement  
- □ Class  
- □ Level  
- □ College  
- □ Major  
- □ Other  
  (please specify)

**9. Repeat Status No**  
- □ # of Repeats  
- □ Max Credits

**10. Grading Basis**  
- □ A-F  
- □ P/NP  
- □ NG

**11. Implementation Date**  
- From: Fall/2015  
- To: Fall/9999

**12. Cross Listed with**  
- □ Stacked with  
  Cross-Listed Coordination Signature

**13a. Impacted Courses or Programs:**  
List any programs or college requirements that require this course.  
Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at [www.uaa.alaska.edu/governance](http://www.uaa.alaska.edu/governance).

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<td>3.</td>
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</table>

**Initiator Name (typed):** Khrys Duddleston  
**Initiator Signed Initials:** _________  
**Date:** __________________

**13b. Coordination Email**  
Date: 6Jan14  
submitted to Faculty Listserv: [uae-faculty@lists.uaa.alaska.edu](mailto:uae-faculty@lists.uaa.alaska.edu)

**13c. Coordination with Library Liaison**  
Date: 6Jan14

**14. General Education Requirement**  
Mark appropriate box:  
- □ Oral Communication  
- □ Written Communication  
- □ Quantitative Skills  
- □ Humanities  
- □ Fine Arts  
- □ Social Sciences  
- □ Natural Sciences  
- □ Integrative Capstone

**15. Course Description** *(suggested length 20 to 50 words)*  
Theory and application of laboratory techniques in microbial ecology, diversity and evolution with an emphasis on experimental design, scientific writing and oral presentation skills.

**16a. Course Prerequisite(s)** *(list prefix and number or test code and score)*  
BIOL A342 with minimum grade of C and [BIOL A450 or concurrent enrollment]

**16b. Co-requisite(s)** *(concurrent enrollment required)*

**16c. Automatic Restriction(s)**  
- □ College  
- □ Major  
- □ Class  
- □ Level

**16d. Registration Restriction(s)** *(non-codable)*

**17. Mark if course has fees**

**18. Mark if course is a selected topic course**

**19. Justification for Action**  
The course prepares students for graduate school or careers in the environmental and/or microbial sciences. It is a companion laboratory-based course to BIOL A450 (Microbial Ecology). This change is part of our overall curriculum revision, which seeks to align our degree with the core concepts and competencies outlined in Vision and Change in Undergraduate Biology Education (National Science Foundation and American Association for the Advancement of Science).
<table>
<thead>
<tr>
<th>Initiator (faculty only)</th>
<th>Date</th>
<th>Dean/Director of School/College</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Khris Duddleston</td>
<td></td>
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</tr>
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<tr>
<th>Approved</th>
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<tr>
<th>Department Chair</th>
<th>Date</th>
<th>Undergraduate/Graduate Academic Board Chair</th>
<th>Date</th>
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<tr>
<th>College/School Curriculum Committee Chair</th>
<th>Date</th>
<th>Provost or Designee</th>
<th>Date</th>
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<tr>
<td>Disapproved</td>
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</table>

383
I. **Date of Initiation:** Spring 2014

II. **Curriculum Action Request**

A. **College:** College of Arts and Sciences  
B. **Course Prefix:** BIOL  
C. **Course Number:** A453  
D. **Number of Credits:** 4  
E. **Contact Hours:** 2+4  
F. **Course Title:** Experiential Learning: Microbial Ecology  
G. **Grading Basis:** A-F  
H. **Implementation Date:** Fall 2015  
I. **Cross-listed/Stacked:** N/A  
J. **Course Description:** Theory and application of laboratory techniques in microbial ecology, diversity and evolution with an emphasis on experimental design, scientific writing and oral presentation skills  
K. **Course Prerequisites:** BIOL A342 with minimum grade of C and [BIOL A450 or concurrent enrollment]  
L. **Course Co-requisites:** N/A  
M. **Other Restrictions:** N/A  
N. **Registration Restrictions:** N/A  
O. **Course Fees:** Yes

III. **Instructional Goals and Student Learning Outcomes**

A. **Instructional Goals.** The instructor will:

   1. Guide students in selecting, comparing and interpreting scientific literature, synthesizing information and maintenance of a professional/field lab notebook.  
   2. Train and guide students in microbial ecology and microbial evolution laboratory techniques.  
   3. Support student-development of group projects to characterize microbial diversity and diversity changes in experimentally altered environments using culture and/or sequence based methods by facilitating discussion of research topics and providing guidance in experimental design, and data collection and analysis  
   4. Provide review and critical analysis of student proposals and guide students in student-to-student peer review.

A. **Student Learning Outcomes and Assessment Measures**

<table>
<thead>
<tr>
<th>Student Learning Outcomes: Upon completion of this course, the student will be able to:</th>
<th>Assessment Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Perform and interpret laboratory techniques in microbial ecology.</td>
<td>Written assignments and examinations, projects</td>
</tr>
<tr>
<td>2. Develop an experimental research plan, including research aims, experimental design</td>
<td>Project work, group discussion and/or written assignments.</td>
</tr>
</tbody>
</table>
3. Demonstrate competency in quantitative analysis and interpretation of scientific data in microbial ecology.

4. Communicate the results of scientific inquiry to an audience of scientific peers.

<table>
<thead>
<tr>
<th>and data analysis</th>
<th>Written assignments, examinations and/or projects.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Oral Presentation, primary research paper, and/or written presentation materials.</td>
</tr>
</tbody>
</table>

IV. Course Level Justification

This experiential learning course is designed for Biological and Natural Science majors as a selective undergraduate course comparable to 400-level Microbial Ecology/Environmental Microbiology laboratory courses offered at other universities.

V. Topical Course Outline

A. Research Project Proposals

1. Questions and Methods in Microbial Ecology
   a. Developing a project in Microbial Ecology and/or Microbial Evolution.
   b. Comparing different experimental systems in microbial ecology.

2. Experimental Design
   a. Develop research aims.
   b. Develop hypothesis and experimental design.
   c. Generate and elaborate experimental protocols.

B. Experimentation – Microbial Ecology and Evolution

1. Practical Skills
   a. Biological and Chemical Safety
   b. Examples of methods in community organism diversity
      1. Fluorescence *in-situ* hybridization
      2. Flow Cytometry
      3. 16S/23S/5S Pyrosequencing
   c. Examples of methods in genetic diversity
      1. Amplicon sequencing and community metabolic diversity
      2. Metabolic analysis
   d. Examples of methods in microcosms
      1. Microbial interactions
      2. Microbiology of the biomes
      3. Microbial evolution

2. Data analysis
   a. Qualitative data analysis
   b. Quantitative data analysis
   c. Critical analysis and troubleshooting

C. Research Communication

1. In-lab journal article discussion/annotation
2. In-lab biotechnology project discussion/presentation
3. Primary research paper
   a. Peer Review
4. Oral presentation to a scientific audience – In-class presentation

VI. Suggested Texts

VII. Bibliography

Journal Articles from primary literature (Science, Nature, Journal of Bacteriology, Microbial Ecology, Cell, EMBO, PNAS, etc.) related to student investigative projects.

Web-based resources for project development and data analysis, including (but not limited to) DNA sequence analysis (EZ-Taxon, NCBI BLAST toolkit, NCBI genomic data information), Microbial ID analysis tools (API online resources), image analysis platforms (Image J) and genomics.

Reference books related to student research topics and the identification and description of diverse microbial organisms, including but not limited to:

Bergey’s Manual of Systematic Bacteriology. Volumes 1 through 5:


# Course Action Request
## University of Alaska Anchorage
### Proposal to Initiate, Add, Change, or Delete a Course

**1a. School or College**

AS CAS

**1b. Division**

AMSC Division of Math Science

**1c. Department**

Biological Sciences

**2. Course Prefix**

BIOL

**3. Course Number**

A454

**4. Previous Course Prefix & Number**

N/A

**5a. Credits/CEUs**

4

**5b. Contact Hours**

(Lecture + Lab)

(2+4)

**6. Complete Course Title**

Experiential Learning: Microbial Biotechnology

**Abbreviated Title for Transcript (30 character)**

EL: Microbial Biotechnology

**7. Type of Course**

☑ Academic  ☐ Preparatory/Development  ☐ Non-credit  ☐ CEU  ☐ Professional Development

**8. Type of Action:** ☑ Add  ☐ Change  ☐ Delete

If a change, mark appropriate boxes:

☐ Prefix  ☐ Course Number  ☐ Contact Hours  ☐ Repeat Status  ☐ Cross-Listed/Stacked

☐ Title  ☐ Course Description  ☐ Course Prerequisites  ☐ Co-requisites  ☐ Registration Restrictions

☐ Grade Basis  ☐ Test Score Prerequisites  ☐ General Education Requirement  ☐ Other (please specify)

**9. Repeat Status No**

☐  # of Repeats

☐ Max Credits

**10. Grading Basis**

 ☑ A-F  ☐ P/NP  ☐ NG

**11. Implementation Date**

semester/year

From: Fall/2015  To: Fall/9999

**12. Cross Listed with**

☑  ☐ Stacked with

Cross-Listed Coordination Signature

**13a. Impacted Courses or Programs:** List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

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</table>

Initiator Name (typed): Khrys Duddleston  Initiator Signed Initials: _________  Date:________________

**13b. Coordination Email**

Date: 6Jan14  submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

**13c. Coordination with Library Liaison**

Date: 6Jan14

**14. General Education Requirement**

Mark appropriate box:

☐ Oral Communication  ☐ Written Communication  ☐ Quantitative Skills  ☐ Humanities

☐ Fine Arts  ☐ Social Sciences  ☐ Natural Sciences  ☐ Integrative Capstone

**15. Course Description** *(suggested length 20 to 50 words)*

Theory and application of laboratory techniques in microbial biotechnology, genetic engineering of microorganisms, and applied microbiology with an emphasis on experimental design, data collection and analysis and scientific writing and oral presentation skills.

**16a. Course Prerequisite(s) (list prefix and number or test code and score)**

BIOL A342 with minimum grade of C and [BIOL A451 or concurrent enrollment or Instructor Permission]

**16b. Co-requisite(s) (concurrent enrollment required)**

**16c. Automatic Restriction(s)**

☐ College  ☐ Major  ☐ Class  ☐ Level

**16d. Registration Restriction(s) (non-codable)**

**17. ☑ Mark if course has fees**

**18. ☐ Mark if course is a selected topic course**

**19. Justification for Action**

The course prepares students for graduate school or careers in molecular biology, biotechnology and the microbial sciences. It is a companion laboratory-based course to BIOL A451 (Microbial Biotechnology). This change is part of our overall curriculum revision, which seeks to align our degree with the core concepts and competencies outlined in Vision and Change in Undergraduate Biology Education (National Science Foundation and American Association for the Advancement of Science)
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I. Date of Initiation: Spring 2014

II. Curriculum Action Request
A. College: College of Arts and Sciences
B. Course Prefix: BIOL
C. Course Number: A454
D. Number of Credits: 4
E. Contact Hours: 2+4
F. Course Title: Experiential Learning: Applied Microbiology
G. Grading Basis: A-F
H. Implementation Date: Fall 2015
I. Cross-listed/Stacked: N/A
J. Course Description: Theory and application of laboratory techniques in microbial biotechnology, genetic engineering of microorganisms, and applied microbiology with an emphasis on experimental design, data collection and analysis and scientific writing and oral presentation skills.
K. Course Prerequisites: BIOL A342 with minimum grade of C and [BIOL A451 or concurrent enrollment or Instructor Permission]
L. Course Co-requisites: N/A
M. Other Restrictions: N/A
N. Registration Restrictions: N/A
O. Course Fees: Yes

III. Instructional Goals and Student Learning Outcomes
A. Instructional Goals. The instructor will:
   1. Guide student in selecting, comparing and interpreting scientific literature, synthesizing information and the maintenance of a professional lab notebook.
   2. Train and guide students in techniques used in microbial biotechnology and applied microbiology.
   3. Support the development of student-led group projects in microbial biotechnology and genetic engineering of microorganisms by facilitating discussion of research topics and providing guidance in experimental design, and data collection and analysis.
   4. Provide review and critical analysis of student proposals and guide students in student-to-student peer review.

B. Student Learning Outcomes and Assessment Measures

<table>
<thead>
<tr>
<th>Student Learning Outcomes: Upon completion of this course, the student will be able to:</th>
<th>Assessment Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Develop an experimental research plan, including research aims, experimental design</td>
<td>Project work, group discussion and/or written Assignments.</td>
</tr>
<tr>
<td><strong>2.</strong> Demonstrate competency in molecular methods commonly used in biotechnology including (but not limited to) plasmid manipulation, recombinant DNA production, bacterial amplification and protein isolation and characterization.</td>
<td>Written assignments and/or projects.</td>
</tr>
<tr>
<td>3. Communicate the results of scientific inquiry to an audience of scientific peers.</td>
<td>Oral presentation, primary research paper, and/or written presentation materials.</td>
</tr>
<tr>
<td>4. Demonstrate competency in applied microbiology techniques, including (but not limited to) bioremediation, surfactant production, protein production in bacterial systems, generation of foods and beverages by microbial action.</td>
<td>Written assignments, laboratory exercises and group discussion.</td>
</tr>
</tbody>
</table>

**IV. Course Level Justification**
This experiential learning course is designed for Biological and Natural Sciences majors as a selective undergraduate course comparable to 400-level biotechnology/applied microbiology laboratory courses offered at other universities.

**V. Topical Course Outline**

**A. Research Project Proposals**
1. Biotechnology questions methods
   a. Developing a project in recombinant DNA and bacterial expression.
   b. Comparing different model systems for production of recombinant proteins.

2. Experimental Design
   a. Develop research aims.
   b. Develop hypothesis and experimental design.
   c. Generate and elaborate experimental protocols.

**B. Experimentation – Biotechnology and recombinant DNA**
1. Examples of practical skills in applied microbiology
   a. Biological and Chemical Safety
   b. *In-vitro* Recombinant DNA techniques
   c. Generation of unique plasmids for the project aims.
   d. Model organism production of chosen protein
   e. Biological assays and molecular techniques
   f. Protein purification strategies and isolation methods.

2. Data analysis
   a. Qualitative data analysis
   b. Quantitative data analysis
   c. Critical analysis and troubleshooting

**C. Experimentation – Applied Microbiology**
1. Examples of practical skills in applied microbiology
   a. Biological assays and molecular techniques
   b. Methods in Microbial Disinfection
   c. Bioremediation
   d. Biosurfactant Production
   e. Production of fermented foods and beverages using microorganisms
f. Methods in wastewater treatment

2. Data analysis
   a. Qualitative data analysis
   b. Quantitative data analysis

D. Research communication
   1. In-lab journal article discussion/annotation
   2. In-lab biotechnology project discussion/presentation
   3. Primary research paper
      a. Peer Review
   4. Oral presentation to a scientific audience

VI. Suggested Texts


A selection of journal articles relevant to course content chosen from primary literature (Science, Nature, Journal of Bacteriology, Biotechnology, Cell, EMBO, PNAS, etc.).

VII. Bibliography
Journal Articles from primary literature (Science, Nature, Journal of Bacteriology, Microbial Ecology, Cell, EMBO, PNAS, etc.) relates to student investigative projects.

Web-based resources for project development and data analysis, including (but not limited to) DNA sequence analysis (NCBI BLAST toolkit, NCBI genomic data information) and image analysis platforms (Image J).

Reference books related to student research topics and the identification and description of diverse microbial organisms, including but not limited to:


**Course Action Request**

**University of Alaska Anchorage**

Proposal to Initiate, Add, Change, or Delete a Course

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<th>2. Course Prefix</th>
<th>3. Course Number</th>
<th>4. Previous Course Prefix &amp; Number</th>
<th>5a. Credits/CEUs</th>
<th>5b. Contact Hours (Lecture + Lab)</th>
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<tr>
<td>BIOL</td>
<td>A455</td>
<td>N/A</td>
<td>4</td>
<td>(2+4)</td>
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**6. Complete Course Title**

Experiential Learning: Bioinformatics

EL: Bioinformatics

**Abbreviated Title for Transcript (30 character)**

**7. Type of Course**

- [x] Academic
- [ ] Preparatory/Development
- [ ] Non-credit
- [ ] CEU
- [ ] Professional Development

**8. Type of Action:**

- [x] Add
- [ ] Change
- [ ] Delete

If a change, mark appropriate boxes:

- [ ] Prefix
- [ ] Credits
- [ ] Title
- [ ] Grading Basis
- [x] Course Description
- [ ] Test Score Prerequisites
- [ ] Automatic Restrictions
- [ ] Other

- [ ] Course Number
- [ ] Contact Hours
- [ ] Repeat Status
- [ ] Cross-Listed/Stacked
- [ ] Course Prerequisites
- [ ] Registration Restrictions
- [ ] General Education Requirement

**9. Repeat Status No # of Repeats Max Credits**

**10. Grading Basis**

- [x] A-F
- [ ] P/NP
- [ ] NG

**11. Implementation Date**

- [ ] semester/year

From: Fall/2015  To: Fall/9999

**12. Cross Listed with**

- [ ] Stacked with

- [ ] Cross-Listed Coordination Signature

**13a. Impacted Courses or Programs:**

List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

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</table>

Initiator Name (typed): Khrys Duddleston  
Initiator Signed Initials: __________________ Date: ____________

**13b. Coordination Email**

submitted to Faculty Listerv: (uaa-faculty@lists.uaa.alaska.edu)

**13c. Coordination with Library Liaison**

Date: 6Jan14

**14. General Education Requirement**

Mark appropriate box:

- [ ] Oral Communication
- [ ] Written Communication
- [ ] Social Sciences
- [ ] Quantitative Skills
- [ ] Fine Arts
- [ ] Humanities
- [ ] Natural Sciences
- [ ] Integrative Capstone

**15. Course Description**

(suggested length 20 to 50 words)

Computational theory and methods for analyses of biological phenomena. Applied laboratory for learning algorithms and databases used in sequence alignment, sequence searching, metagenomics, phylogenetics, analysis of next-generation sequencing data, protein structures, and molecular pathways. Genomics approaches for understanding complex biological systems in model organisms and human disease will be presented.

**16a. Course Prerequisite(s)**

(list prefix and number or test code and score)

(BIOL A252 and [MATH A200 or MATH A272] and [STAT A253 or STAT A307]) with minimum grade of C and one computer science course [CS A109, CS A110, CS A111, CSCE A201, or CSCE A202]

**16b. Co-requisite(s)**

(concurrent enrollment required)

**16c. Automatic Restriction(s)**

<table>
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<th>College</th>
<th>Major</th>
<th>Class</th>
<th>Level</th>
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</thead>
</table>

**16d. Registration Restriction(s)**

(non-codable)

**17. Mark if course has fees**

**18. Mark if course is a selected topic course**

**19. Justification for Action**

This course prepares students for graduate school or careers in molecular biology and microbiology. This change is part of our overall curriculum revision, which seeks to align our degree with the core concepts and competencies outlined in Vision and Change in Undergraduate Biology Education (National Science Foundation and American Association for the Advancement of Science)
Initiator (faculty only)  Date
Khrys Duddleston  
Initiator (TYPE NAME)

☐ Approved  ☐ Disapproved  Dean/Director of School/College  Date

Department Chair  Date

☐ Approved  ☐ Disapproved  Undergraduate/Graduate Academic Board Chair  Date

College/School Curriculum Committee Chair  Date

☐ Approved  ☐ Disapproved  Provost or Designee  Date
I. Date of Initiation

Spring 2014

II. Curriculum Action Request

A. College: College of Arts and Sciences
B. Course Prefix: BIOL
C. Course Number: A455
D. Number of Credits: 4
E. Contact Hours: 2+4
F. Course Title: Experiential Learning: Bioinformatics
G. Grading Basis: A-F
H. Implementation Date: Fall 2015
I. Cross-listed/Stacked: N/A
J. Course Description: Computational theory and methods for analyses of biological phenomena. Applied laboratory for learning algorithms and databases used in sequence alignment, sequence searching, metagenomics, phylogenetics, analysis of next-generation sequencing data, protein structures, and molecular pathways. Genomics approaches for understanding complex biological systems in model organisms and human disease will be presented.
K. Course Prerequisites: {BIOL A252, and [MATH A200 or MATH A272] and [STAT A253 or STAT A307]} with minimum grade of C and one computer science course [CS A109, CS A110, CS A111, CSCE A201, or CSCE A202]
L. Course Co-requisites: N/A
M. Other Restrictions: N/A
N. Registration Restrictions: N/A
O. Course Fees: Yes

III. Instructional Goals and Student Learning Outcomes

A. Instructional Goals. The instructor will:

1. Present a synthesis of basic principles of mathematics, computer science, statistics and genetics used to develop algorithms for analyzing biological sequence data, including sequence alignment, sequence searching, metagenomics, phylogenetics, and next-generation sequencing data analysis.
2. Discuss how to implement and critically deconstruct computational methods to understand genomics data, molecular pathways, protein structures, and complex biological systems, with reference to model organisms and human disease.
3. Introduce databases and software for bioinformatics analyses, and explain how to implement sequence analyses programs using computer programming tools.
4. Facilitate student learning of current, prescient topics in bioinformatics by guided discussion of select scientific literature and recent biotechnological advancements that impact understanding of immune responses.

B. Student Learning Outcomes and Assessment Measures
Student Learning Outcomes: Upon completion of this course, the student will be able to:

<table>
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<tr>
<th></th>
<th>Assessment Measures</th>
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</thead>
<tbody>
<tr>
<td>1. Integrate basic principles of mathematics, computer science, statistics and genetics to develop and apply algorithms for analyzing biological sequence data.</td>
<td>Written assignments, examinations, computational laboratory exercises, and bioinformatics laboratory reports.</td>
</tr>
<tr>
<td>2. Implement, interpret, and critically discuss computational methods to understand genomics data, metagenomics, protein structures, molecular pathways, and complex biological systems.</td>
<td>Written assignments, examinations, computational laboratory exercises, and bioinformatics laboratory reports.</td>
</tr>
<tr>
<td>3. Use software for bioinformatics analyses, and implement sequence analyses programs using computer programming tools.</td>
<td>Computational laboratory exercises, and bioinformatics laboratory reports.</td>
</tr>
<tr>
<td>4. Develop scientific communication skills by participating in class discussion and presenting bioinformatics laboratory reports.</td>
<td>Computational laboratory exercises, and bioinformatics laboratory reports.</td>
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</table>

IV. Course Level Justification
Experiential Learning: Bioinformatics is an advanced laboratory course synthesizing computational, mathematical, and statistical methods for analyzing and interpreting biological data, such as genetic sequences. As such, it requires in-depth preparation in genetics and quantitative sciences, including mathematics, statistics, and computer science, to understand, interpret, and implement algorithms for bioinformatics analyses; to access databases and learn bioinformatics software tools for biological data analysis; and to describe the implications of analyses for complex biological systems.

V. Topical Course Outline
A. Introduction to bioinformatics
   1. What is bioinformatics?
   2. Molecular basis of sequencing
      a. Nucleic acids
      b. Proteins
      c. Next-generation sequencing
   3. The genome revolution
      a. Genomics
      b. Functional genomics
      c. Metagenomics
   4. Computational resources for biologists
      a. Databases
      b. Algorithms
      c. Coding languages
      d. Introductory computational laboratory exercises

B. Theoretical bases of bioinformatics
   1. Search and sort algorithms for nucleic acid sequence analysis
      a. Pairwise alignment
      b. Multiple sequence alignment
   2. Protein sequence analysis algorithms
3. Phylogenetics algorithms
4. Probabilistic sequence analysis algorithms
   a. Bayesian
   b. Hidden Markov models
   c. Maximizing likelihood
   d. Sampling algorithms

C. Applications of bioinformatics algorithms for sequence analysis
   1. Multiple sequence alignment
      a. BLAST variations
      b. Sequence alignment code
      c. Computational laboratory exercises
   2. Building phylogenetic trees for understanding evolution
   3. Next-generation sequencing
      a. Technological platforms
      b. Sequence data formats
      c. Gene and genome assembly
      d. Metagenomics of populations
      e. Computational laboratory exercises

4. Gene families
   a. Mapping gene duplication events
   b. Gene annotation
   c. Computational laboratory exercises

5. Whole genome sequence analysis
   a. Genome alignment algorithms
   b. Polymorphisms and ESTs
   c. Genome organization
   d. Inferring evolution from phylogeny
   e. Computational laboratory exercises

D. Applications of bioinformatics algorithms in molecular systems biology
   1. Protein structure
      a. Protein Database
      b. De novo protein structure prediction algorithms
      c. Computational laboratory exercises
   2. Functional genomics technologies used in systems biology
   3. Functional genomics networks and data analysis
      a. Transcriptional networks
      b. Protein interaction networks
      c. Metabolomics networks
      d. Systems biology data types
      e. Clustering and principal component algorithms
      f. Computational exercises in genomics data analyses

E. From model organisms to human disease
   1. Systems biology analysis of molecular pathways
      a. Genomics data sets
      b. Bioinformatics algorithms
      c. Computational exercises in systems biology
   2. Systems biology of model organisms
   3. Integrated genomics of human disease

VI. Suggested Texts
VII. Bibliography


### Course Action Request

University of Alaska Anchorage

Proposal to Initiate, Add, Change, or Delete a Course

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<th>5b. Contact Hours (Lecture + Lab)</th>
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- Title
- Grading Basis
- Course Description
- Test Score Prerequisites
- Automatic Restrictions
- Class
- Level
- College
- Major
- Other

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13a. Impacted Courses or Programs: List any programs or college requirements that require this course.

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Initiator Name (typed): Khrys Duddleston

Initiator Signed Initials: _________

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13b. Coordination Email: [uaa-faculty@lists.uaa.alaska.edu](mailto:uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison: Date: 6Jan14

14. General Education Requirement

Mark appropriate box:

- Oral Communication
- Written Communication
- Quantitative Skills
- Humanities
- Fine Arts
- Social Sciences
- Natural Sciences
- Integrative Capstone

15. Course Description (suggested length 20 to 50 words)

A study of the molecular biology of cancer, with emphasis on the mechanisms by which a normal cell becomes a malignant cell, including the roles of chemicals, viruses, and other environmental insults in carcinogenesis. The orientation of the course will be toward a study of the fundamentals of cancer molecular biology and the current literature, through a combination of team-based learning (TBL), research, discussions, term papers, and seminars.

16a. Course Prerequisite(s) (list prefix and number or test code and score)

BIOL A252 with minimum grade of C

16b. Co-requisite(s) (concurrent enrollment required)

16c. Automatic Restriction(s)

- College
- Major
- Class
- Level

16d. Registration Restriction(s) (non-codable)

17. Mark if course has fees

18. Mark if course is a selected topic course

19. Justification for Action

As part of our overall curriculum revision, which seeks to align our degree with the core concepts and competencies in Vision and Change in Undergraduate Biology Education (National Science Foundation and American Association for the Advancement of Science), this course will become part of our rotation of upper division electives in molecular biology. This course has been offered at the graduate level (BIOL A663) and required graduate standing. Many students with a Natural Sciences or Biological Sciences major and an interest in the health care professions have expressed interest in this course as an elective for their B.S. or B.A. degree.
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399
I. Date of Initiation: Spring 2014

II. Curriculum Action Request

A. College: College of Arts and Sciences
B. Course Prefix: BIOL
C. Course Number: A463
D. Number of Credits: 3
E. Contact Hours: 3+0
F. Course Title: Molecular Biology of Cancer
G. Grading Basis: A-F
H. Implementation Date: Fall 2015
I. Cross-listed/Stacked: N/A
J. Course Description: A study of the molecular biology of cancer, with emphasis on the mechanisms by which a normal cell becomes a malignant cell, including the roles of chemicals, viruses, and other environmental insults in carcinogenesis. The orientation of the course will be toward a study of the fundamentals of cancer molecular biology and the current literature, through a combination of team-based learning (TBL), research, discussions, term papers, and seminars.

K. Course Prerequisites: BIOL A252 with minimum grade of C.
L. Course Co-requisites: N/A
M. Other Restrictions: N/A
N. Registration Restrictions: N/A
O. Course Fees: No

III. Instructional Goals and Student Learning Outcomes

A. Instructional Goals. The instructor will:
   1. Explain and provide a framework for understanding the fundamental changes in cell physiology that must occur for a cell to become cancerous.
   2. Provide examples by which environmental insults promote carcinogenesis and discuss cancer prevention.
   3. Discuss the latest research findings relevant to carcinogenesis and cancer treatment.

B. Student Learning Outcomes and Assessment Measures

<table>
<thead>
<tr>
<th>Student Learning Outcomes: Upon completion of this course, the student will be able to:</th>
<th>Assessment Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Illustrate the classes of molecular defects that must occur in the progression of carcinogenesis, as well as specific examples of these molecular defects, and to understand how the relevant molecular pathways interact.</td>
<td>TBL exercises, written assignments, in class discussions</td>
</tr>
<tr>
<td>2. Demonstrate the mechanisms by which genetic and environmental factors promote or</td>
<td>Written assignments, presentations, in class discussions</td>
</tr>
</tbody>
</table>
inhibit carcinogenesis.

| 3. Analyze data presented in the primary literature on cancer molecular biology. | Presentations, in class discussions, written term paper |

IV. Course Level Justification
This course teaches the complex topic of the molecular bases of cancer and is similar in expectation and scope to 400-level courses in molecular biology offered at other universities.

V. Topical Course Outline
A. Biology of Cancer
B. Hallmarks of Cancer
C. Enabling Characteristics of Cancer
D. Growth Signaling and Oncogenes
E. Anti-Growth Signaling and Tumor Suppressors
F. Apoptosis
G. Tissue Invasion/Metastasis
H. Epigenetics and Cancer
I. Genome Stability and Cancer
   1. Genetics and Cancer Syndromes
   2. Carcinogens
J. Viruses and Cancer
K. Cancer and the Immune System

VI. Suggested Texts


Primary literature from journals such as Oncogene, Science, Cell, Nature, and similar titles.

VII. Bibliography

**Course Action Request**  
University of Alaska Anchorage  
Proposal to Initiate, Add, Change, or Delete a Course

<table>
<thead>
<tr>
<th>1a. School or College</th>
<th>1b. Division</th>
<th>1c. Department</th>
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<th>5a. Credits/CEUs</th>
<th>5b. Contact Hours (Lecture + Lab)</th>
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<tr>
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<td>N/A</td>
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<td>(3+0)</td>
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</table>

**6. Complete Course Title**  
Metals in Biology  
Abbreviated Title for Transcript (30 character):

**7. Type of Course**  
- [x] Academic  
- [ ] Preparatory/Development  
- [ ] Non-credit  
- [ ] CEU  
- [ ] Professional Development

**8. Type of Action:**  
- [x] Add  
- [ ] Change  
- [ ] Delete

If a change, mark appropriate boxes:  
- [ ] Prefix  
- [ ] Course Number  
- [ ] Contact Hours  
- [ ] Repeat Status  
- [ ] Grading Basis  
- [ ] Cross-Listed/Stacked  
- [ ] Course Description  
- [ ] Course Prerequisites  
- [ ] Co-requisites  
- [ ] Test Score Prerequisites  
- [ ] Co-requisites  
- [ ] Registration Restrictions  
- [ ] General Education Requirement  
- [ ] Automatic Restrictions  
- [ ] Class  
- [ ] Level  
- [ ] College  
- [ ] Major  
- [ ] Other (please specify)

**9. Repeat Status No**  
# of Repeats:  
Max Credits:  

**10. Grading Basis**  
- [x] A-F  
- [ ] P/NP  
- [ ] NG

**11. Implementation Date**  
From: Fall/2015  
To: Fall/9999

**12. Cross Listed with**  
- [ ] Stacked with  

Cross-Listed Coordination Signature

**13a. Impacted Courses or Programs:**  
List any programs or college requirements that require this course.  
Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

<table>
<thead>
<tr>
<th>Impacted Program/Course</th>
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<th>Chair/Coordinator Contacted</th>
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</table>

Initiator Name (typed): Khrys Duddleston  
Initiator Signed Initials:  

**13b. Coordination Email**  
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

**13c. Coordination with Library Liaison**  
Date: 6Jan14

**14. General Education Requirement**  
Mark appropriate box:  
- [ ] Oral Communication  
- [ ] Written Communication  
- [ ] Quantitative Skills  
- [ ] Humanities  
- [ ] Fine Arts  
- [ ] Social Sciences  
- [ ] Natural Sciences  
- [ ] Integrative Capstone

**15. Course Description** (suggested length 20 to 50 words)  
Investigation of the fundamental roles and actions of metals in biological systems. Major topics will include transition metals, catalysis of reactions, cellular and organismal homeostasis, evolutionary and ecological relevance, deficiency and toxicity. We will incorporate basic concepts of bioinorganic chemistry and structural biology.

**16a. Course Prerequisite(s)** (list prefix and number or test code and score)  
(CHEM A106 and BIOL A242) with minimum grade of C

**16b. Co-requisite(s)** (concurrent enrollment required)

**16c. Automatic Restriction(s)**  
- [ ] College  
- [ ] Major  
- [ ] Class  
- [ ] Level

**16d. Registration Restriction(s)** (non-codable)  
Junior Standing

**17. Mark if course has fees**  

**18. Mark if course is a selected topic course**

**19. Justification for Action**  
This course contributes to the development of a comprehensive discipline specific area in cell, genetics and molecular biology. Part of our overall curriculum revision, which seeks to streamline completion of the B.S. in Biological Sciences degree and align our degree with the core concepts and competencies outlined in Vision and Change in Undergraduate Biology Education (National Science Foundation and American Association for the Advancement of Science).
<table>
<thead>
<tr>
<th>Role</th>
<th>Approved</th>
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<td>Khrys Duddleston</td>
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<td>Department Chair</td>
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<td>College/School Curriculum Committee Chair</td>
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<td>Provost or Designee</td>
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</table>
I. Date of Initiation: Spring 2014

II. Curriculum Action Request
A. College: College of Arts and Sciences
B. Course Prefix: BIOL
C. Course Number: A464
D. Number of Credits: 3
E. Contact Hours: 3+0
F. Course Title: Metals in Biology
G. Grading Basis: A-F
H. Implementation Date: Fall 2015
I. Cross-listed/Stacked: N/A
J. Course Description: Investigation of the fundamental roles and actions of metals in biological systems. Major topics will include transition metals, catalysis of reactions, cellular and organismal homeostasis, evolutionary and ecological relevance, deficiency and toxicity. We will incorporate basic concepts of bioinorganic chemistry and structural biology.
K. Course Prerequisites: [CHEM A106 and BIOL A242] with minimum grade of C.
L. Course Co-requisites: N/A
M. Other Restrictions: Junior Standing
N. Registration Restrictions: N/A
O. Course Fees: No

III. Instructional Goals and Student Learning Outcomes
A. Instructional Goals. The instructor will:
   1. Provide contemporary course content based in primary literature and key relevant reviews.
   2. Build a conceptual framework for the fundamental roles of metals in biological systems.
   3. Explain the concepts of essentiality vs. toxicity of metals in biological systems and strategies for how organisms have evolved to balance these opposing qualities.
   4. Discuss current research in the field and relevant outstanding questions.

B. Student Learning Outcomes and Assessment Measures

<table>
<thead>
<tr>
<th>Student Learning Outcomes: Upon completion of this course, the student will be able to:</th>
<th>Assessment Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Summarize how metals are essential in biological systems and strategies for avoiding toxicity.</td>
<td>Written assignments and examinations</td>
</tr>
<tr>
<td>2. Illustrate potential metal toxicity mechanisms and current state-of-the-field knowledge in</td>
<td>Written assignments and examinations</td>
</tr>
<tr>
<td>3. Deduce key metal-coordinating motifs in biological molecules.</td>
<td>Written assignments and examinations</td>
</tr>
<tr>
<td>4. Evaluate experimental data in primary literature and develop meaningful questions for future study.</td>
<td>Written assignments and examinations</td>
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</table>

IV. Course Level Justification
This course synthesizes critical roles of metal in maintenance of homeostasis in biological systems. The conceptual framework requires a working knowledge of basic cellular and molecular biology as well as integration of basic chemistry.

V. Topical Course Outline
A. Essential transition metals and theories of evolutionary history
B. Reading primary literature and basic experimental methods
C. Critical transition metals
   1. Iron
   2. Copper
   3. Zinc
D. Metal toxicity mechanisms
   1. Routes of exposure
   2. Movement in the environment
   3. Molecular responses
E. Metal analysis in biological materials
   1. ICP-MS
   2. X-Ray Fluorescence
   3. Chemical sensors
F. Human metabolic disorders
   1. Menkes Disease and Wilson’s Disease
   2. Acrodermatitis enteropathica
   3. Hemochromatosis
   4. Friedreich’s ataxia
G. Neurotoxicity and neurodegeneration
   1. Alzheimer’s Disease
   2. Parkinson’s and Manganism
   3. Mercury toxicity
H. Plants and metals
   1. Transport and homeostasis
   2. Herbivory defense
   3. Applications: Phytoremediation
I. Metals and nutrition
   1. Animal husbandry
   2. Human nutrition and metals
   3. Wildlife: exposure and deficiency

VI. Suggested Texts
Selected articles from the following journals:

Metallomics : integrated biometal science. Royal Society of Chemistry.


Biochemical and biophysical research communications. Elsevier Publishing.

VII. Bibliography


### Course Action Request

**University of Alaska Anchorage**  
Proposal to Initiate, Add, Change, or Delete a Course

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<td>(Lecture + Lab)</td>
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<td>Immunology</td>
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<th>7. Type of Course</th>
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**Contact Hours:** (Lecture + Lab)  
3 + 0

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<td>Fundamental concepts of immunology, including cells and tissues of the immune system, innate immunity, lymphocyte development, antigenicity, cytokine signaling, antibody responses, immunotherapies and vaccines. Comparative immunological evolution of non-human species will be discussed. Immunological aspects of human disease, with particular emphasis on host-pathogen interactions, autoimmune diseases, immunodeficiencies, and cancer.</td>
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<th>16a. Course Prerequisite(s)</th>
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<tr>
<th>19. Justification for Action</th>
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<tbody>
<tr>
<td>We are removing laboratory from course, revising name and content.</td>
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<td>Date:</td>
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407
University of Alaska Anchorage  
College of Health  
Course Content Guide

I. Date of Initiation:  
Spring 2014

II. Curriculum Action Request  
A. College: College of Arts and Sciences  
B. Course Prefix: BIOL  
C. Course Number: A471  
D. Number of Credits: 3  
E. Contact Hours: 3+0  
F. Course Title: Immunology  
G. Grading Basis: A-F  
H. Implementation Date: Fall 2015  
I. Cross-listed/Stacked: CHEM A471  
J. Course Description: Fundamental concepts of immunology, including cells and tissues of the immune system, innate immunity, lymphocyte development, antigenicity, cytokine signaling, antibody responses, immunotherapies and vaccines. Comparative immunological evolution of non-human species will be discussed. Immunological aspects of human disease, with particular emphasis on host-pathogen interactions, autoimmune diseases, immunodeficiencies, and cancer.  
K. Course Prerequisites: [BIOL A242 and BIOL A252] with minimum grade of C.  
L. Course Co-requisites: N/A  
M. Other Restrictions: N/A  
N. Registration Restrictions: N/A  
O. Course Fees: No

III. Instructional Goals and Student Learning Outcomes  
A. Instructional Goals. The instructor will:  
1. Present a synthesis of concepts in immunology, focused on cells and tissues of the immune system, innate immunity, innate immune effectors and antigen-presenting cells, lymphocyte development, the molecular bases of antigenicity and vaccines, and cytotoxic T-cell and antibody responses.  
2. Discuss how experimental methods using non-human species (mice, primates, rabbits, birds, and model organisms) have contributed important concepts to immunology.  
3. Conceptualize host-pathogen immune interactions, with case studies drawn from the literature, to include tuberculosis, HIV/AIDS, malaria, tumor viruses, and influenza, and the roles of the immune system in autoimmune diseases, immunodeficiencies, and cancer.  
4. Facilitate student learning of current, prescient topics in virology by guided discussion of select scientific literature and recent biotechnological advancements that impact understanding of immune responses.
B. Student Learning Outcomes and Assessment Measures

<table>
<thead>
<tr>
<th>Student Learning Outcomes: Upon completion of this course, the student will be able to:</th>
<th>Assessment Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Apply basic principles of genetics, cell biology, molecular biology, and physiology to describe the development of both innate and adaptive immune responses with a particular emphasis on the human immune system.</td>
<td>Written assignments and examinations</td>
</tr>
<tr>
<td>2. Analyze and critically discuss advanced experimental methods, comparative animal models to understand immune system evolution, host-pathogen interactions, and vaccines.</td>
<td>Written assignments and examinations</td>
</tr>
<tr>
<td>3. Synthesize and evaluate the role of the immune system in chronic diseases, including autoimmune diseases, immunodeficiencies, and cancer.</td>
<td>Written assignments and examinations</td>
</tr>
<tr>
<td>4. Develop scientific communication skills by participating in class discussion and presenting an immunological case study.</td>
<td>Written assignments, research paper, and case study presentation</td>
</tr>
</tbody>
</table>

IV. Course Level Justification

Immunology is an interdisciplinary science, requiring in-depth preparation in genetics and cell biology, to understand novel immunological concepts presented and experimental animal models for immunological research. Immunology requires prerequisites in cell biology and genetics.

V. Topical Course Outline

A. Introduction to immunology
   1. Self vs. non-self
   2. Cells and tissues of immune system
   3. Experimental methods in immunology
   4. Comparative immunology in animal models

B. Integrated biological concepts at work in the immune system
   1. Immune subcellular structure and function
   2. Immune cell DNA replication and cell cycle
   3. Immunological gene expression
   4. Immunological signal transduction
   5. Immune cell development
   6. Immune cell physiology
   7. Immune cell protein structure and function
   8. Evolution of immune system

C. Innate immune system
   1. Pattern recognition receptors (PRR)
   2. Innate signal transduction
   3. Innate immune responses in the cell
4. Innate immune effector cell responses
5. Intrinsic immune responses
6. Complement and defensins
7. Evolution of innate immune system
   a. Mammals
   b. Model organisms

D. Innate immune effector cells
   1. Macrophages
   2. Neutrophils
   3. Natural killer T cells
   4. Specialized innate effector cells
   5. Innate immune killing mechanisms in infection
      a. Bacteria
      b. Viruses
      c. Eukaryotic parasites
      d. Superantigens in autoimmunity

E. Innate immune cells in antigen presentation
   1. Molecular pathways of antigen presentation
      a. MHC I
      b. MHC II
      c. Cross-presentation
   2. Antigen repertoire
   3. Innate responses in somatic cells
   4. Specialized antigen-presenting cells
   5. Molecular structure and function of antigen presentation proteins

F. Adaptive immune responses
   1. Hematopoietic cell development
   2. Myeloid lineages
   3. Lymphoid lineages
   4. Generation of lymphoid cell responses
      a. Differential TH responses
      b. Cytotoxic T cells
      c. Helper T cells
      d. B cells
      e. Plasma cells
   5. Immune memory
   6. Vaccination
   7. Antibody responses
      a. Immunoglobulin isotype structures
      b. Thymic selection theory
      c. Generation of genomic antibody diversity
      d. Somatic hypermutation

G. Emerging paradigms in immunology from experimental model organisms
   1. Comparative immunological evolution
   2. Transgenic mouse models of innate immunity
   3. Mouse models of adaptive immunity

H. Pathogen evasion of immune responses
   1. Primer on host-pathogen interactions
   2. Evasion of innate immunity
   3. Evasion of adaptive immunity
   4. HIV/AIDS
5. DNA tumor viruses
6. Tuberculosis
7. Malaria

I. Immunology and human disease
1. Autoimmune diseases
2. Immunodeficiencies
3. Aging and immune responses
4. Immune aspect of malignancies (cancer)
5. Immunological diseases of unknown etiology
6. Antigen selection for vaccine design
7. Immunotherapies

VI. Suggested Texts

Excerpts from primary literature and review articles from scientific journals, for example:
Immunity
FASEB Journal
Current Opinion in Immunology
Nature Reviews Immunology
Immunological Reviews

VII. Bibliography


# Course Action Request

**University of Alaska Anchorage**

Proposal to Initiate, Add, Change, or Delete a Course

## 1. School or College

- **AS CAS**

## 2. Course Prefix

- **CHEM**

## 3. Course Number

- **A471**

## 4. Previous Course Prefix & Number

- **N/A**

## 5. Credits/CEUs

- **3**

## 6. Complete Course Title

**Immunology**

**Abbreviated Title for Transcript (30 character)**

## 7. Type of Course

- **Academic**

## 8. Type of Action:

- **Add**

## 9. Repeat Status No

- **# of Repeats**

- **Max Credits**

## 10. Grading Basis

- **A-F**

## 11. Implementation Date

- **From:** Fall/2015

- **To:** Fall/9999

## 12. Cross Listed with

- **BIOL A471**

## 13a. Impacted Courses or Programs:

List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at [www.aaa.alaska.edu/governance](http://www.aaa.alaska.edu/governance).

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Initiator Name (typed): Khrys Duddleston/Colin McGill

Initiator Signed Initials: _______  Date: _______

## 13b. Coordination Email

submitted to Faculty Listserv: (uaa-faculty@lists.aaa.alaska.edu)

Date: 6Jan14

## 13c. Coordination with Library Liaison

Date: 6Jan14

## 14. General Education Requirement

Mark appropriate box:

- [ ] Oral Communication
- [ ] Written Communication
- [ ] Quantitative Skills
- [ ] Humanities
- [ ] Fine Arts
- [ ] Social Sciences
- [ ] Natural Sciences
- [ ] Integrative Capstone

## 15. Course Description (suggested length 20 to 50 words)

Fundamental concepts of immunology, including cells and tissues of the immune system, innate immunity, lymphocyte development, antigenicity, cytokine signaling, antibody responses, immunotherapies and vaccines. Comparative immunological evolution of non-human species will be discussed. Immunological aspects of human disease, with particular emphasis on host-pathogen interactions, autoimmune diseases, immunodeficiencies, and cancer.

## 16a. Course Prerequisite(s) (list prefix and number or test code and score)

[BIOL A242 and BIOL A252] with minimum grade of C

## 16b. Co-requisite(s) (concurrent enrollment required)

N/A

## 16c. Automatic Restriction(s)

- [ ] College
- [ ] Major
- [ ] Class
- [ ] Level

## 16d. Registration Restriction(s) (non-codable)

N/A

## 17. Mark if course has fees

- [ ]

## 18. Mark if course is a selected topic course

- [ ]

## 19. Justification for Action

We are removing laboratory from course, revising name and content.

Initiator (faculty only)

Khrys Duddleston/Colin McGill

Initiator (TYPE NAME)

Approved

Disapproved

Dean/Director of School/College

Date

Approved

Disapproved

Undergraduate/Graduate Academic

Date

Approved

Disapproved

Board Chair

Date

Approved

Disapproved

Provost or Designee

Date

413
I. Date of Initiation: Spring 2014

II. Curriculum Action Request

A. College: College of Arts and Sciences
B. Course Prefix: CHEM
C. Course Number: A471
D. Number of Credits: 3
E. Contact Hours: 3+0
F. Course Title: Immunology
G. Grading Basis: A-F
H. Implementation Date: Fall 2015
I. Cross-listed/Stacked: BIOL A471
J. Course Description: Fundamental concepts of immunology, including cells and tissues of the immune system, innate immunity, lymphocyte development, antigenicity, cytokine signaling, antibody responses, immunotherapies and vaccines. Comparative immunological evolution of non-human species will be discussed. Immunological aspects of human disease, with particular emphasis on host-pathogen interactions, autoimmune diseases, immunodeficiencies, and cancer.
K. Course Prerequisites: [BIOL A242 and BIOL A252] with minimum grade of C.
L. Course Co-requisites: N/A
M. Other Restrictions: N/A
N. Registration Restrictions: N/A
O. Course Fees: No

III. Instructional Goals and Student Learning Outcomes

A. Instructional Goals. The instructor will:

1. Present a synthesis of concepts in immunology, focused on cells and tissues of the immune system, innate immunity, innate immune effectors and antigen-presenting cells, lymphocyte development, the molecular bases of antigenicity and vaccines, and cytotoxic T-cell and antibody responses.

2. Discuss how experimental methods using non-human species (mice, primates, rabbits, birds, and model organisms) have contributed important concepts to immunology.

3. Conceptualize host-pathogen immune interactions, with case studies drawn from the literature, to include tuberculosis, HIV/AIDS, malaria, tumor viruses, and influenza, and the roles of the immune system in autoimmune diseases, immunodeficiencies, and cancer.

4. Facilitate student learning of current, prescient topics in virology by guided discussion of select scientific literature and recent biotechnological advancements that impact understanding of immune responses.
B. Student Learning Outcomes and Assessment Measures

<table>
<thead>
<tr>
<th>Student Learning Outcomes: Upon completion of this course, the student will be able to:</th>
<th>Assessment Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Apply basic principles of genetics, cell biology, molecular biology, and physiology to describe the development of both innate and adaptive immune responses with a particular emphasis on the human immune system.</td>
<td>Written assignments and examinations</td>
</tr>
<tr>
<td>2. Analyze and critically discuss advanced experimental methods, comparative animal models to understand immune system evolution, host-pathogen interactions, and vaccines.</td>
<td>Written assignments and examinations</td>
</tr>
<tr>
<td>3. Synthesize and evaluate the role of the immune system in chronic diseases, including autoimmune diseases, immunodeficiencies, and cancer.</td>
<td>Written assignments and examinations</td>
</tr>
<tr>
<td>4. Develop scientific communication skills by participating in class discussion and presenting an immunological case study.</td>
<td>Written assignments, research paper, and case study presentation</td>
</tr>
</tbody>
</table>

IV. Course Level Justification

Immunology is an interdisciplinary science, requiring in-depth preparation in genetics and cell biology, to understand novel immunological concepts presented and experimental animal models for immunological research. Immunology requires prerequisites in cell biology and genetics.

V. Topical Course Outline

A. Introduction to immunology
   1. Self vs. non-self
   2. Cells and tissues of immune system
   3. Experimental methods in immunology
   4. Comparative immunology in animal models

B. Integrated biological concepts at work in the immune system
   1. Immune subcellular structure and function
   2. Immune cell DNA replication and cell cycle
   3. Immunological gene expression
   4. Immunological signal transduction
   5. Immune cell development
   6. Immune cell physiology
   7. Immune cell protein structure and function
   8. Evolution of immune system

C. Innate immune system
   1. Pattern recognition receptors (PRR)
   2. Innate signal transduction
   3. Innate immune responses in the cell
4. Innate immune effector cell responses
5. Intrinsic immune responses
6. Complement and defensins
7. Evolution of innate immune system
   a. Mammals
   b. Model organisms

D. Innate immune effector cells
   1. Macrophages
   2. Neutrophils
   3. Natural killer T cells
   4. Specialized innate effector cells
   5. Innate immune killing mechanisms in infection
      a. Bacteria
      b. Viruses
      c. Eukaryotic parasites
      d. Superantigens in autoimmunity

E. Innate immune cells in antigen presentation
   1. Molecular pathways of antigen presentation
      a. MHC I
      b. MHC II
      c. Cross-presentation
   2. Antigen repertoire
   3. Innate responses in somatic cells
   4. Specialized antigen-presenting cells
   5. Molecular structure and function of antigen presentation proteins

F. Adaptive immune responses
   1. Hematopoietic cell development
   2. Myeloid lineages
   3. Lymphoid lineages
   4. Generation of lymphoid cell responses
      a. Differential TH responses
      b. Cytotoxic T cells
      c. Helper T cells
      d. B cells
      e. Plasma cells
   5. Immune memory
   6. Vaccination
   7. Antibody responses
      a. Immunoglobulin isotype structures
      b. Thymic selection theory
      c. Generation of genomic antibody diversity
      d. Somatic hypermutation

G. Emerging paradigms in immunology from experimental model organisms
   1. Comparative immunological evolution
   2. Transgenic mouse models of innate immunity
   3. Mouse models of adaptive immunity

H. Pathogen evasion of immune responses
   1. Primer on host-pathogen interactions
   2. Evasion of innate immunity
   3. Evasion of adaptive immunity
   4. HIV/AIDS
5. DNA tumor viruses
6. Tuberculosis
7. Malaria

I. Immunology and human disease
1. Autoimmune diseases
2. Immunodeficiencies
3. Aging and immune responses
4. Immune aspect of malignancies (cancer)
5. Immunological diseases of unknown etiology
6. Antigen selection for vaccine design
7. Immunotherapies

VI. Suggested Texts

Excerpts from primary literature and review articles from scientific journals, for example:
Immunity
FASEB Journal
Current Opinion in Immunology
Nature Reviews Immunology
Immunological Reviews

VII. Bibliography


Course Action Request  
University of Alaska Anchorage 
Proposal to Initiate, Add, Change, or Delete a Course

<table>
<thead>
<tr>
<th>1a. School or College</th>
<th>1b. Division</th>
<th>1c. Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS CAS</td>
<td>AMSC Division of Math Science</td>
<td>Biological Sciences</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Course Prefix</th>
<th>3. Course Number</th>
<th>4. Previous Course Prefix &amp; Number</th>
<th>5a. Credits/CEUs</th>
<th>5b. Contact Hours</th>
</tr>
</thead>
<tbody>
<tr>
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<td>A472</td>
<td>A309</td>
<td>3</td>
<td>(Lecture + Lab)</td>
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<thead>
<tr>
<th>6. Complete Course Title</th>
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<th>Abbreviated Title for Transcript (30 character)</th>
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<td>Biogeography</td>
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<table>
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<tr>
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<th>8. Type of Action</th>
<th>9. Repeat Status No</th>
<th>Max Credits</th>
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<tbody>
<tr>
<td>Academic</td>
<td>Expanding or</td>
<td>A-F</td>
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<tr>
<td>Preparatory/Development</td>
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<th>11. Implementation Date</th>
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<td>A-F</td>
<td>From: Fall/2015</td>
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<td>P/NP</td>
<td>To: Fall/9999</td>
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<tr>
<td>Stacked</td>
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<tr>
<th>13a. Impacted Courses or Programs</th>
<th>14. General Education Requirement</th>
</tr>
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<tbody>
<tr>
<td>List any programs or college requirements that require this course.</td>
<td>Mark appropriate box:</td>
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<td>Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at <a href="http://www.uaa.alaska.edu/governance">www.uaa.alaska.edu/governance</a>.</td>
<td>Oral Communication</td>
</tr>
<tr>
<td>If a change, mark appropriate boxes:</td>
<td>Written Communication</td>
</tr>
<tr>
<td>Prefix</td>
<td>Credits</td>
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<tr>
<th>15. Course Description</th>
<th>16a. Course Prerequisite(s)</th>
<th>16b. Co-requisite(s)</th>
</tr>
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<tbody>
<tr>
<td>(suggested length 20 to 50 words)</td>
<td>(list prefix and number or test code and score)</td>
<td>(concurrent enrollment required)</td>
</tr>
<tr>
<td>Ecological basis and historical patterns of the distribution of organisms and ecosystems on a worldwide basis. Current theories regarding the origin of these distributions are examined.</td>
<td>BIOL A288 with minimum grade of C</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>17. Mark if course has fees</th>
<th>18. Mark if course is a selected topic course</th>
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<tbody>
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</table>

<table>
<thead>
<tr>
<th>19. Justification for Action</th>
<th>20. Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>The course number is being changed to be consistent with the level at which the course has been taught, and so that graduate students can take the course for credit. Also, this is part of our overall curriculum revision, which seeks to streamline completion of the B.S. in Biological Sciences degree and align our degree with the core concepts and competencies outlined in Vision and Change in Undergraduate Biology Education (National Science Foundation and American Association for the Advancement of Science).</td>
<td>6Jan14</td>
</tr>
</tbody>
</table>

Initiator Name (typed): Khrys Duddleston  
Initiator Signed Initials: _________  
Date: ___________

Initiator (faculty only) 
Khrys Duddleston  
Initiator (TYPE NAME) 

Approved
Disapproved
Approved
Disapproved
Approved
Disapproved
Approved
Disapproved
Approved
Disapproved
Approved
Disapproved
Approved
Disapproved
Approved
I. **Date of Initiation:** Spring 2014

II. **Curriculum Action Request**
   A. **College:** College of Arts and Sciences
   B. **Course Prefix:** BIOL
   C. **Course Number:** A472
   D. **Number of Credits:** 3
   E. **Contact Hours:** 3+0
   F. **Course Title:** Biogeography
   G. **Grading Basis:** A-F
   H. **Implementation Date:** Fall 2015
   J. **Course Description:** Ecological basis and historical patterns of the distribution of organisms and ecosystems on a worldwide basis. Current theories regarding the origin of these distributions are examined
   K. **Course Prerequisites:** BIOL A288 with minimum grade of C.
   L. **Course Co-requisites:** N/A
   M. **Other Restrictions:** N/A
   N. **Registration Restrictions:** N/A
   O. **Course Fees:** No

III. **Instructional Goals and Student Learning Outcomes**
   A. **Instructional Goals.** The instructor will:
      1. Elucidate processes leading to the global distribution of biomes, ecosystems and the effects of ecological scaling from the global to the micro-topography level.
      2. Provide the tools for assessing biogeographic patterns and environmental degradation in the context of geomorphological, geological and ecological processes.
      3. Guide students to analyze biogeographic patterns and habitat degradation through the formulation and testing of hypotheses.
      4. Reinforce the application of the scientific method for independent research projects designed to understand biogeographic principles, including the collection and interpretation of data, modification of study designs, and writing of an original scientific paper.
   B. **Student Learning Outcomes and Assessment Measures**

<table>
<thead>
<tr>
<th>Student Learning Outcomes: Upon completion of this course, the student will be able to:</th>
<th>Assessment Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Describe the fundamental concepts of biogeographic patterns ranging from global to micro-geographic scales based on climate, plate tectonics, oceanic and atmospheric circulation, and other major processes.</td>
<td>Examinations, independent research project and research paper.</td>
</tr>
<tr>
<td>2. Demonstrate and apply knowledge of biogeography to describe integrative</td>
<td>Examinations, independent research project and research paper.</td>
</tr>
</tbody>
</table>
associations between the distribution and evolution of various taxa and their environmental adaptations.

3. Interpret and assess environmental degradation through biogeographic distribution patterns and human land use including the application of island biogeographic theory to the design of nature reserves.

4. Formulate and test hypotheses; collect, statistically analyze and interpret data from a research project that culminates in a standard scientific manuscript.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
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<tbody>
<tr>
<td>3.</td>
<td>Examinations.</td>
</tr>
<tr>
<td>4.</td>
<td>Independent research project and research paper.</td>
</tr>
</tbody>
</table>

### IV. Course Level Justification

Designed for Biology and Natural Sciences majors as an elective undergraduate course comparable to 400-level biogeography courses offered at other universities.

### V. Topical Course Outline

A. Endemism, dispersal and variance
B. Species distributions
C. Community distributions
D. Speciation and diversification
E. History of life
   1. Diversification of life
   2. Mass extinction events
   3. Patterns from the Pleistocene
F. Provincialism and disjunction
G. Phylogenetic analyses
H. Island biogeography and the design of nature reserves
   1. Case studies
   2. GIS applications
I. Latitudinal gradients in biodiversity
J. Interchange and barriers
K. Disturbance ecology
L. Human biogeography
M. Biomes
   1. Terrestrial systems
      a. Deserts
      b. Tropical rainforests
      c. Temperate forests
      d. Treelines and boundaries
      e. Arctic tundra
   2. Marine systems
      a. Oceanography, productivity and climate change
      b. Coral reefs
      c. Mangrove forests
   3. Freshwater systems
      a. Wetland conservation and mitigation
      b. The river continuum concept
VI. Suggested Texts

VII. Bibliography
The classic papers found in *Foundations of Biogeography: Classic Papers with Commentaries*, edited by Lomolino, Sax & Brown (2004), formed the basis of the field of biogeography.

The “Journal of Biogeography”, published by Blackwell Publishing, along with the sister journals "Global Ecology and Biogeography" and "Diversity and Distributions" contain many thousands of articles that extend those classic ideas using modern techniques and technologies.

The book *Macroecology*, by Brown, J.H. (1995, University of Chicago Press), provides an excellent integration of biogeography with other biological specialties, such as phylogenetics.


## Course Action Request

University of Alaska Anchorage
Proposal to Initiate, Add, Change, or Delete a Course

<table>
<thead>
<tr>
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<tr>
<th>2. Course Prefix</th>
<th>3. Course Number</th>
<th>4. Previous Course Prefix &amp; Number</th>
<th>5a. Credits/CEUs</th>
<th>5b. Contact Hours (Lecture + Lab)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL</td>
<td>A474</td>
<td>N/A</td>
<td>3</td>
<td>(3+0)</td>
</tr>
</tbody>
</table>

6. Complete Course Title
Ecotoxicology
Abbreviated Title for Transcript (30 character)

7. Type of Course
☐ Academic  ☐ Preparatory/Development  ☐ Non-credit  ☐ CEU  ☐ Professional Development

8. Type of Action:  ☑ Add  ☐ Change  ☐ Delete

9. Repeat Status No  # of Repeats  Max Credits

10. Grading Basis
☐ A-F  ☐ P/NP  ☐ NG

11. Implementation Date  semester/year
From: Fall/2015  To: Fall/9999

12. ☐ Cross Listed with  ☐ Stacked with

Cross-Listed Coordination Signature

13a. Impacted Courses or Programs: List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at [www.uaa.alaska.edu/governance](http://www.uaa.alaska.edu/governance).

<table>
<thead>
<tr>
<th>Impacted Program/Course</th>
<th>Date of Coordination</th>
<th>Chair/Coordinator Contacted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
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<tr>
<td>2.</td>
<td></td>
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<tr>
<td>3.</td>
<td></td>
<td></td>
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</table>

Initiator Name (typed): Khrys Duddleston  Initiator Signed Initials: _________ Date: __________

13b. Coordination Email  Date: 6Jan14
submitted to Faculty Listserv: [uaa-faculty@lists.uaa.alaska.edu](mailto:uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison  Date: 6Jan14

14. General Education Requirement
Mark appropriate box:
☐ Oral Communication  ☐ Written Communication  ☐ Quantitative Skills  ☐ Humanities
☐ Fine Arts  ☐ Social Sciences  ☐ Natural Sciences  ☐ Integrative Capstone

15. Course Description (suggested length 20 to 50 words)
Examination of the chemical and ecological nature of pollution processes and the major classes and environmental fate of pollutants.

16a. Course Prerequisite(s) (list prefix and number or test code and score)
BIOL A270 with minimum grade of C

16b. Co-requisite(s) (concurrent enrollment required)

16c. Automatic Restriction(s)
☐ College  ☐ Major  ☐ Class  ☐ Level

16d. Registration Restriction(s) (non-codable)

17. ☐ Mark if course has fees

18. ☐ Mark if course is a selected topic course

19. Justification for Action
Course is being created in response to student interest and to prepare students for graduate school or careers in the environmental sciences. Part of our overall curriculum revision, which seeks to streamline completion of the B.S. in Biological Sciences degree and align our degree with the core concepts and competencies outlined in Vision and Change in Undergraduate Biology Education (National Science Foundation and American Association for the Advancement of Science)

Initiator (faculty only)  Date
Khrys Duddleston
Initiator (TYPE NAME)  Date

Approved  Disapproved  Dean/Director of School/College  Date

Approved  Disapproved  Undergraduate/Graduate Academic  Date
Board Chair

Approved  Disapproved  Provost or Designee  Date

Approved  Disapproved  Department Chair  Date

Approved  Disapproved  College/School Curriculum Committee Chair  Date
II. Curriculum Action Request
A. College: College of Arts and Sciences
B. Course Prefix: BIOL
C. Course Number: A474
D. Number of Credits: 3
E. Contact Hours: 3+0
F. Course Title: Ecotoxicology
G. Grading Basis: A-F
H. Implementation Date: Fall 2015
I. Cross-listed/Stacked: N/A
J. Course Description: Examination of the chemical and ecological nature of pollution processes and the major classes and environmental fate of pollutants.
K. Course Prerequisites: BIOL A271 with minimum grade of C.
L. Course Co-requisites: N/A
M. Other Restrictions: N/A
N. Registration Restrictions: N/A
O. Course Fees: No

III. Instructional Goals and Student Learning Outcomes
A. Instructional Goals. The instructor will:
   1. Teach students about the major classes of pollutants, including their chemical structure, toxicological effects, and fate in the environment.
   2. Teach students about the routes by which pollutants enter ecosystems, including surface waters, land, and the atmosphere.
   3. Teach students about the global transport of pollutants and their fractionation into different environmental compartments.
   4. Teach students about the fate of pollutants in individual organisms and tissues and mechanisms of toxicity.
   5. Teach students about the effects of pollutants on populations and communities.
   6. Teach students about the evolution of resistance to contaminants in populations and community responses to contaminant exposure.
   7. Teach students about the use of biomarkers in ecotoxicology and various monitoring techniques.
   8. Teach students about remediation techniques and technologies.

B. Student Learning Outcomes and Assessment Measures

<table>
<thead>
<tr>
<th>Student Learning Outcomes: Upon completion of this course, the student will be able to:</th>
<th>Assessment Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Explain the chemistry, toxicological effects and environmental fate of the major classes of contaminants.</td>
<td>Examinations.</td>
</tr>
<tr>
<td>2. Explain the global transport, fractionation, and routing of contaminants on both global</td>
<td>Examinations.</td>
</tr>
</tbody>
</table>
and local scales.

3. Explain the fate of pollutants in individual organisms and their various compartment, as well as the biological mechanisms of toxicity. Examinations.

4. Extrapolate individual toxicity to understand effects of contaminants on populations and communities. Examinations.

5. Synthesize knowledge of toxicity mechanisms to understand both evolved responses in populations and emergent effects on community ecology. Examinations.

6. Explain on a mechanistic level the use of biomarkers and other monitoring techniques in studies of contaminants. Examinations.

7. Explain the latest science underlying remediation techniques and technologies. Examinations.

8. Synthesize knowledge across multiple course content areas in written format. Independent course paper.

IV. Course Level Justification
Designed for Biology and Natural Sciences majors as an elective undergraduate course comparable to 400-level ecotoxicology course offered at other universities. This course covers the principle concepts essential to the student’s ability to succeed in graduate programs and career pathways relevant to the discipline of ecotoxicology.

V. Topical Course Outline
A. Pollutants and their fate in ecosystems
   1. Major classes of pollutants
      a. Inorganic ions
      b. Organic pollutants
      c. Organometallic compounds
      d. Radioactive isotopes
      e. Gaseous pollutants
   2. Routes by which pollutants enter ecosystems
      a. Entry into surface waters
      b. Contamination of land
      c. Discharge into the atmosphere
   3. Long range movements and global transport of pollutants
      a. Factors determining movement and distribution of pollutants
      b. Transport in water
      c. Transport in air
   4. The fate of metals and radioactive isotopes in contaminated ecosystems
   5. The fate of organic pollutants in individuals and ecosystems
      a. Fate within individuals
      b. Fate in terrestrial ecosystems
      c. Fate in aquatic ecosystems
B. Effects of pollutants on individual organisms
   1. Toxicity testing
   2. Biochemical effects of pollutants
3. Physiological effects of pollutants
4. Interactive effects of pollutants
5. Biomarkers
6. *In situ* biological monitoring

C. Effects of pollutants on populations and communities
   1. Population dynamics
   2. Evolution of resistance to pollution
   3. Changes in communities and ecosystems

D. Remediation techniques and technologies

VI. *Suggested Texts*


VII. *Bibliography*


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AS CAS  
1b. Division  
AMSC Division of Math Science  
1c. Department  
Biological Sciences

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6. Complete Course Title  
Fish Ecology  
Fish Ecology  
Abbreviated Title for Transcript (30 character)  

7. Type of Course  
[ ] Academic  
[ ] Preparatory/Development  
[ ] Non.credit  
[ ] CEU  
[ ] Professional Development

8. Type of Action:  
[ ] Add  
[ ] Change  
[ ] Delete

If a change, mark appropriate boxes:

- Prefix
- Credits
- Title
- Grading Basis
- Course Description
- Test Score Prerequisites
- Automatic Restrictions
- Other

9. Repeat Status No  
# of Repeats  
Max Credits

10. Grading Basis  
[ ] A-F  
[ ] P/NP  
[ ] NG

11. Implementation Date  
From: Fall/2015  
To: Fall/9999

12. Cross Listed with  
[ ] Stacked with [ ]

Cross-Listed Coordination Signature

13a. Impacted Courses or Programs: List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at [www.uaa.alaska.edu/governance](http://www.uaa.alaska.edu/governance).

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Initiator Name (typed): Khrys Duddleston  
Initiator Signed Initials:  

Initiator (faculty only)  
Khryst Duddleston  
Initiator (TYPE NAME)

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submitted to Faculty Listserv:  
(uae-faculty@lists.uaa.alaska.edu)

14. General Education Requirement  
Mark appropriate box:

- Oral Communication
- Written Communication
- Quantitative Skills
- Humanities
- Fine Arts
- Social Sciences
- Natural Sciences
- Integrative Capstone

15. Course Description (suggested length 20 to 50 words)

This course provides a broad survey of fish habitats and the ecological processes that govern the performance of individuals, abundance and productivity of populations, and structure of communities, with an emphasis on Alaska’s salmon populations.

16a. Course Prerequisite(s) (list prefix and number or test code and score)  
[BIOL A271 and BIOL A320] with minimum grade of C.

16b. Co-requisite(s) (concurrent enrollment required)

16c. Automatic Restriction(s)

- College  
- Major  
- Class  
- Level

16d. Registration Restriction(s) (non-codable)

17. Mark if course has fees  
18. Mark if course is a selected topic course

19. Justification for Action

This course has been taught as a selected topics and meets a curricular need for students interested in careers in fisheries. This change is part of our overall curriculum revision, which seeks to streamline completion of the B.S. in Biological Sciences degree and align our degree with the core concepts and competencies outlined in Vision and Change in Undergraduate Biology Education (National Science Foundation and American Association for the Advancement of Science).

Initiator (faculty only)  
Khryst Duddleston  
Initiator (TYPE NAME)

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427
University of Alaska Anchorage  
College of Health  
Course Content Guide

I. Date of Initiation: Spring 2014

II. Curriculum Action Request
A. College: College of Arts and Sciences  
B. Course Prefix: BIOL  
C. Course Number: A475  
D. Number of Credits: 3  
E. Contact Hours: 3+0  
F. Course Title: Fish Ecology  
G. Grading Basis: A-F  
H. Implementation Date: Fall 2015  
I. Cross-listed/Stacked: N/A  
J. Course Description: This course provides a broad survey of fish habitats and the ecological processes that govern the performance of individuals, abundance and productivity of populations, and structure of communities, with an emphasis on Alaska’s salmon populations. 
K. Course Prerequisites: [BIOL A271 and BIOL A320] with minimum grade of C.  
L. Course Co-requisites: N/A  
M. Other Restrictions: N/A  
N. Registration Restrictions: N/A  
O. Course Fees: No

III. Instructional Goals and Student Learning Outcomes
A. Instructional Goals. The instructor will:  
   1. Describe key attributes of fish habitats including the physical and chemical features that regulate ecosystem productivity  
   2. Introduce the food webs that support fish production in marine, lotic, and lentic systems.  
   3. Introduce fish bioenergetics models and examine the environmental factors that regulate fish growth, condition, and reproduction  
   4. Compare and contrast life history strategies and discuss the role of evolution in shaping life history patterns  
   5. Discuss the factors that regulate fish biodiversity, current threats to fish biodiversity, and the consequences of biodiversity loss.  
   6. Cover the basics of population dynamics in the fishery management context  
   7. Introduce basic field, lab, and statistical methods used by fishery managers and researchers
B. Student Learning Outcomes and Assessment Measures

<table>
<thead>
<tr>
<th>Student Learning Outcomes: Upon completion of this course, the student will be able to:</th>
<th>Assessment Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Outline the key process, materials, and organisms that constitute aquatic food webs and map the flow of energy and materials that lead to fish production in representative habitats</td>
<td>Quizzes, group application exercises, writing assignments, and/or examinations</td>
</tr>
<tr>
<td>2. Demonstrate and apply knowledge of fish ecology to describe linkages among habitat quality, the growth and condition of individuals, the abundance and productivity of populations, and the structure of communities.</td>
<td>Quizzes, group application exercises, writing assignments, and/or examinations</td>
</tr>
<tr>
<td>3. Describe the role of evolution in shaping the morphological, physiological, and behavioral adaptations that adapt fishes to their characteristic habitats and enable competition and partitioning of resources among and within species.</td>
<td>Quizzes, group application exercises, writing assignments, and/or examinations</td>
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<tr>
<td>4. Discuss the importance of fish biodiversity within populations and communities; characterize important threats to fish biodiversity both regionally and globally; and analyze the ecological and sociological ramifications of diminished biodiversity.</td>
<td>Quizzes, group application exercises, writing assignments, and/or examinations</td>
</tr>
<tr>
<td>5. Design standardized sampling regimes for specific habitats and apply bioenergetics models, stable isotope analyses, life history models, measures of growth and fitness, population estimates, and stock-recruit models in management and research contexts.</td>
<td>Quizzes, group application exercises, writing assignments, and/or examinations</td>
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IV. Course Level Justification

This course builds on concepts presented in 200- and 300-level courses and is comparable to 400-level fish ecology courses offered at other universities.

V. Topical Course Outline

A. Food webs and the structure of aquatic ecosystems
   1. The physical environment
   2. The chemical environment
   3. Energy sources and feeding roles

B. Individuals
   1. Bioenergetics
   2. Growth
   3. Reproduction

C. Populations
   1. Survival in the freshwater environment
2. Survival in the marine environment
3. Life history, evolution, and adaptation
4. Population dynamics

D. Communities
1. Predation and competition

E. Conservation
1. Abundance and diversity, past, present and future
2. Biodiversity loss and the consequences thereof

F. Tools for fishery management and research

VI. Suggested Texts


Selected articles from the primary literature

VII. Bibliography


Course Action Request
University of Alaska Anchorage
Proposal to Initiate, Add, Change, or Delete a Course

1a. School or College
AS CAS

1b. Division
AMSC Division of Math Science

1c. Department
Biological Sciences

2. Course Prefix
BIOL

3. Course Number
A476

4. Previous Course Prefix & Number

5a. Credits/CEUs
3

5b. Contact Hours
(Lecture + Lab)
(3+0)

6. Complete Course Title
Wildlife Population Dynamics and Management

Abbreviated Title for Transcript (30 character)
Wildlife Pop. Dynam. Mgmt

7. Type of Course
☒ Academic ☐ Preparatory/Development ☐ Non-credit ☐ CEU ☐ Professional Development

8. Type of Action:
☒ Add ☐ Change ☐ Delete

If a change, mark appropriate boxes:

☐ Prefix
☐ Credits
☐ Title
☐ Grading Basis
☐ Course Description
☐ Test Score Prerequisites
☐ Automatic Restrictions
☐ Other (please specify)

☐ Course Number
☐ Contact Hours
☐ Repeat Status
☐ Cross-Listed/Stacked
☐ Co-requisites
☐ Registration Restrictions
☐ General Education Requirement

☐ Class
☐ Level
☐ College
☐ Major

9. Repeat Status No
☐ of Repeats
☑ Max Credits

10. Grading Basis
☒ A-F ☐ P/NP ☐ NG

11. Implementation Date
From: Fall/2015 To: Fall/9999

12. Cross Listed with
☒ Stacked with
☐ Cross-Listed Coordination Signature

13a. Impacted Courses or Programs: List any programs or college requirements that require this course.
Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

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Initiator Signed Initials: __________ Date: __________

13b. Coordination Email
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison
Date: 6Jan14

14. General Education Requirement
Mark appropriate box:
☐ Oral Communication ☐ Written Communication ☞ Quantitative Skills ☐ Humanities
☐ Fine Arts ☐ Social Sciences ☐ Natural Sciences ☐ Integrative Capstone

15. Course Description (suggested length 20 to 50 words)
History and ecological principles underlying fish and wildlife management, including key theories of population ecology, methods for estimating population size, survival, and recruitment, and discussions of how theory is applied in contemporary population management in the face of uncertainty and habitat changes

16a. Course Prerequisite(s) (list prefix and number or test code and score)
(BIOL A271 and [MATH A107 or MATH A109 or MATH A200] with minimum grade of C).

16b. Co-requisite(s) (concurrent enrollment required)

16c. Automatic Restriction(s)
☐ College ☐ Major ☐ Class ☐ Level

16d. Registration Restriction(s) (non-codable)

17. ☐ Mark if course has fees

18. ☐ Mark if course is a selected topic course

19. Justification for Action
Creating new, permanent course, for content that has previously been covered in special topics course and meets needs of students interested in careers or graduate school in wildlife biology. This is part of our overall curriculum revision, which seeks to streamline completion of the B.S. in Biological Sciences degree and align our degree with the core concepts and competencies outlined in Vision and Change in Undergraduate Biology Education (National Science Foundation and American Association for the Advancement of Science).
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</table>
I. Date of Initiation: Spring 2014

II. Curriculum Action Request
A. College: College of Arts and Sciences
B. Course Prefix: BIOL
C. Course Number: A476
D. Number of Credits: 3
E. Contact Hours: 3+0
F. Course Title: Wildlife Population Dynamics and Management
G. Grading Basis: A-F
H. Implementation Date: Fall 2015
I. Cross-listed/Stacked: N/A
J. Course Description: History and ecological principles underlying fish and wildlife management, including key theories of population ecology, methods for estimating population size, survival, and recruitment, and discussions of how theory is applied in contemporary population management in the face of uncertainty and habitat changes.
K. Course Prerequisites: {BIOL A271 and [MATH A107 or MATH A109 or MATH A200]} with minimum grade of C.
L. Course Co-requisites: N/A
M. Other Restrictions: N/A
N. Registration Restrictions: N/A
O. Course Fees: No

III. Instructional Goals and Student Learning Outcomes
A. Instructional Goals. The instructor will:
   1. Provide a basic description of the goals of, and need for wildlife management
   2. Introduce the philosophy and history of the North American model of wildlife management, including comparison with the European model and government funding mechanisms.
   3. Introduce and develop core concepts in population biology and ecology, including population demographic models
   4. Emphasize the extent and historical/geographic patterns of human impacts on the wildlife populations, and on how humans have designed and implemented management programs.
   5. Provide detailed examples of how the vital rates of populations are influenced by both intrinsic and extrinsic factors, and of how changes in that habitat may
influence species diversity and abundance through impacts on population
growth rates and interactions among species.

6. Relate all of the above to current issues in wildlife management and case
studies that demonstrate management successes and failures - with a focus on
Alaskan issues where possible. The need for balancing different perspectives
and needs will be covered - including economic value (e.g., fisheries, hunting),
cultural value (subsistence use), conservation value (wildlife in wildlands,
resilience within ecosystems), and future values, and expose students to
discussions on these topics from local experts.

7. Teach students how to evaluate and integrate information from a variety of
different sources and perspectives.

B. Student Learning Outcomes and Assessment Measures

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<th>Student Learning Outcomes: Upon completion of this course, the student will be able to:</th>
<th>Assessment Measures</th>
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<tbody>
<tr>
<td>1. Identify and assess the linkages between wildlife population ecology, management approaches, and conservation strategies.</td>
<td>Written assignments and examinations</td>
</tr>
<tr>
<td>2. Integrate information from scientific articles with that provided in lecture and textbook assignments, and use this information to evaluate the scientific accuracy of popular press (TV, newspaper, magazine, web) reports on wildlife management issues</td>
<td>Exams, written assignments, in class reports</td>
</tr>
<tr>
<td>3. Communicate their understanding of vertebrate population ecology, and the impacts that humans are having on the system directly and indirectly to peers</td>
<td>In-class presentation, exams, and writing assignment</td>
</tr>
<tr>
<td>4. Analyze, assess, and evaluate the impact that humans are having on the vertebrate populations through in-depth study of current 'hot topics' such as global warming, habitat loss, disease, etc.</td>
<td>Presentations, exams, and written assignments</td>
</tr>
<tr>
<td>5. Analyze the range of options available for addressing specific wildlife management scenarios and identify the consequences (intended and unintended) of each on both wildlife and human populations.</td>
<td>Exams, written assignments, in class reports</td>
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</table>

IV. Course Level Justification

This course builds on concepts presented in 200 level courses. Students are required to learn and integrate information from a variety of scientific disciplines as it relates to wildlife management, to read, understand, and apply ideas conveyed by primary scientific literature, to synthesize biological knowledge and social considerations; and to apply course materials to current problems.
V. **Topical Course Outline**
   A. Introduction to Wildlife Population Biology and the need for conservation & management
      1. History and philosophy of Wildlife Management
      2. Population ecology methods and approaches
   B. Defining a population for management
      1. Species concepts
      2. Distinct Population Segments
      3. The role of genetics
   C. Estimating population vital rates
      1. Essential parameters
      2. Methodological approaches
      3. Variation among and within populations
      4. Individual variation in ‘quality’
   D. Models of population growth
      1. Geometric, exponential, logistic and others
      2. Stage-structured population models
      3. Density dependent models
   E. The impact of predation & disease on populations
   F. Management of populations
      1. Harvest rates and quotas
      2. Population viability models
      3. Conservation of small and endangered species
   G. Case studies demonstrating wildlife management successes and failures

VI. **Suggested Texts**


VII. **Bibliography**

Course Action Request  
University of Alaska Anchorage  
Proposal to Initiate, Add, Change, or Delete a Course

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| 8. Type of Action: | ☒ Add | ☐ Change | ☐ Delete |

If a change, mark appropriate boxes:

- ☐ Prefix
- ☐ Credits
- ☐ Title
- ☐ Grading Basis
- ☐ Course Description
- ☐ Test Score Prerequisites
- ☐ Automatic Restrictions
- ☐ Other

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| 10. Grading Basis   | ☒ A-F | ☐ P/NP | ☐ NG |

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| 12. ☐ Cross Listed with |

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<td>An in-depth examination of the primary forces and processes involved in shaping genetic variation in natural populations (mutation, drift, selection, migration, recombination, mating patterns, population size, and population subdivision), methods of measuring genetic variation in nature, and experimental tests of important ideas in population genetics and microevolution theory.</td>
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| 17. ☐ Mark if course has fees |

| 18. ☐ Mark if course is a selected topic course |

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<td>The course is needed to provide majors in Biological Sciences and Natural Sciences with an upper division course in applied genetics. This is part of our overall curriculum revision, which seeks to streamline completion of the B.S. in Biological Sciences degree and align our degree with the core concepts and competencies outlined in Vision and Change in Undergraduate Biology Education (National Science Foundation and American Association for the Advancement of Science).</td>
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University of Alaska Anchorage  
College of Arts and Sciences  
Course Content Guide

I. Date of Initiation: Spring 2014

II. Curriculum Action Request
A. College: College of Arts and Sciences
B. Course Prefix: BIOL
C. Course Number: A480
D. Number of Credits: 3
E. Contact Hours: 3+0
F. Course Title: Ecological and Conservation Genetics
G. Grading Basis: A-F
H. Implementation Date: Fall 2015
I. Cross-listed/Stacked: N/A
J. Course Description: An in-depth examination of the primary forces and processes involved in shaping genetic variation in natural populations (mutation, drift, selection, migration, recombination, mating patterns, population size, and population subdivision), methods of measuring genetic variation in nature, and experimental tests of important ideas in population genetics and microevolution theory.
K. Course Prerequisites: [BIOL A252 or BIOL A288] with minimum grade of C
L. Course Co-requisites: N/A
M. Other Restrictions: N/A
N. Registration Restrictions: N/A
O. Course Fees: No

III. Instructional Goals and Student Learning Outcomes
A. Instructional Goals. The instructor will:
1. Provide the basis for advanced analysis of evolutionary theory and concepts
2. Build on a theoretical framework to describe how evolutionary process results in evolutionary pattern
3. Link current research on how microevolutionary processes relate to observed responses to environmental and climate change
4. Enable students to undertake analyses and conceptualization of quantitative evolutionary mechanisms
5. Provide detailed examples of modern evolutionary analysis and theory as mechanisms of biotic change and diversification
6. Provide expert assistance in use and interpretation of current analytical software developed for quantitative evolutionary analysis

B. Student Learning Outcomes and Assessment Measures

<table>
<thead>
<tr>
<th>Student Learning Outcomes</th>
<th>Assessment Procedures</th>
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</thead>
<tbody>
<tr>
<td>1. Gain in-depth understanding of evolutionary process, microevolution mechanisms, and macroevolutionary</td>
<td>Exams and conceptual paper</td>
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</table>
IV. **Course Level Justification**

This course is similar to 400-level courses in conservation genetics offered at other universities. Students are required to learn and integrate information at an upper-division level from a variety of scientific disciplines as it relates to applied genetics, advanced evolutionary and ecological analysis, and microevolutionary processes; to read, understand, and apply ideas conveyed by primary scientific literature; and to synthesize current biological knowledge, ecological and evolutionary theory.

V. **Topical Course Outline**

A. Genetic and statistical background
B. Genetic and phenotypic variation
C. Organization of genetic variation
D. Population substructure
E. Sources of variation
F. Darwinian Selection
G. Complex Selection, Sexual Selection
H. Random genetic drift
I. Coalescence
J. Molecular population genetics
K. Mutation and Recombination
L. Stochastic Combinatorics
M. Neutral theory
N. Non-Darwinian dynamics

V. **Suggested Texts**


VII. **Bibliography**


### Course Action Request

**University of Alaska Anchorage**

**Proposal to Initiate, Add, Change, or Delete a Course**

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<th>5b. Contact Hours (Lecture + Lab)</th>
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6. **Complete Course Title**

Spatial Ecology

Abbreviated Title for Transcript (30 character)

7. **Type of Course**

- [x] Academic
- [ ] Preparatory/Development
- [ ] Non-credit
- [ ] CEU
- [ ] Professional Development

8. **Type of Action:**

- [x] Add
- [ ] Change
- [ ] Delete

If a change, mark appropriate boxes:

- Prefix
- Credits
- Title
- Grading Basis
- Course Description
- Test Score Prerequisites
- Automatic Restrictions
- Other

9. **Repeat Status**

# of Repeats | Max Credits
---|---

10. **Grading Basis**

- [x] A-F
- [ ] P/NP
- [ ] NG

11. **Implementation Date**

From: Fall/2015  
To: Fall/9999

12. **Cross Listed with**

- [ ] Stacked with

Cross-Listed Coordination Signature

13a. **Impacted Courses or Programs:** List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at [www.uaa.alaska.edu/governance](http://www.uaa.alaska.edu/governance).

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Initiator Name (typed): Khrys Duddleston  
Initiator Signed Initials: __________  
Date: __________

13b. **Coordination Email**

Date: 6Jan14  
submitted to Faculty Listserv: [uaa-faculty@lists.uaa.alaska.edu](mailto:uaa-faculty@lists.uaa.alaska.edu)

13c. **Coordination with Library Liaison**

Date: 6Jan14

14. **General Education Requirement**

Mark appropriate box:

- [ ] Oral Communication
- [ ] Written Communication
- [ ] Quantitative Skills
- [ ] Humanities
- [ ] Fine Arts
- [ ] Social Sciences
- [ ] Natural Sciences
- [ ] Integrative Capstone

15. **Course Description** *(suggested length 20 to 50 words)*

An examination of spatial ecology including: 1) the physical and ecological nature of landscapes, 2) the use of GIS tools to map and understand patterns in physical and biological properties, and 3) the use of case studies that apply GIS tools to ecological and abiotic processes such as migration of ungulates and birds; local-regional-continental and global patterns of precipitation chemistry and associations of societal practices and spatial patterns in the water and carbon cycles.

16a. **Course Prerequisite(s)** *(list prefix and number or test code and score)*

BIOL A271 with minimum grade of C.

16b. **Co-requisite(s)** *(concurrent enrollment required)*

16c. **Automatic Restriction(s)*

- [ ] College
- [ ] Major
- [ ] Class
- [ ] Level

16d. **Registration Restriction(s)** *(non-codable)*

17. **Mark if course has fees**

18. **Mark if course is a selected topic course**

19. **Justification for Action**

New course which meets the needs of students interested in graduate work or careers in ecology. This is part of our overall curriculum revision, which seeks to streamline completion of the B.S. in Biological Sciences degree and align our degree with the core concepts and competencies outlined in Vision and Change in Undergraduate Biology Education (National Science Foundation and American Association for the Advancement of Science).
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442
I. Date of Initiation: Spring 2014

II. Curriculum Action Request
A. College: College of Arts and Sciences
B. Course Prefix: BIOL
C. Course Number: A482
D. Number of Credits: 3
E. Contact Hours: 3+0
F. Course Title: Spatial Ecology
G. Grading Basis: A-F
H. Implementation Date: Fall 2015
I. Cross-listed/Stacked: N/A
J. Course Description: An examination of spatial ecology including: 1) the physical and ecological nature of landscapes, 2) the use of GIS tools to map and understand patterns in physical and biological properties and 3) the use of case studies that apply GIS tools to ecological and abiotic processes such as migration of ungulates and birds; local-regional-continental and global patterns of precipitation chemistry and associations of societal practices and spatial patterns in the water and carbon cycles.
K. Course Prerequisites: BIOL A271 with minimum grade of C.
L. Course Co-requisites: N/A
M. Other Restrictions: N/A
N. Registration Restrictions: N/A
O. Course Fees: No

III. Instructional Goals and Student Learning Outcomes
A. Instructional Goals. The instructor will:
   1. Provide a description of the abiotic and biotic environments from the micro to the global scale.
   2. Discuss the role of key abiotic processes that vary spatially and temporally that have major effects on organisms, ecosystems and landscapes.
   3. Provide advanced information on food web ecology, atmospheric processes, land use patterns and migration ecology.
   4. Introduce the vocabulary of Geographic Information Systems.
   5. Introduce GIS concepts through discussion of spatial patterns in abiotic traits, animal distributions and migration dynamics.
   6. Conduct class exercises in ArcGIS.
   7. Encourage class discussion of spatial issues that are of relevance to Alaska, the Arctic and the global community.
   8. Help students understand GIS applications to research and resource management.

B. Student Learning Outcomes and Assessment Measures:

<table>
<thead>
<tr>
<th>Student Learning Outcomes</th>
<th>Assessment Measures</th>
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</table>
this course, the student will be able to:

1. Describe traits of the abiotic and biotic environment that have important spatial and temporal patterns. Written assignments and examinations

2. Describe key migration and food web traits in northern systems and key spatial patterns. Written assignments and examinations

3. Explain and use the key facets of GIS tools and their application to spatial ecology. Written assignments, examinations and classroom exercises

4. Explain some of the causes of spatial and temporal patterns of animal distributions, atmospheric chemistry, the water and the carbon cycles. Written assignments and examinations

5. Describe how important societal processes-land use change- is being manifested spatially in Arctic and Temperate systems. Written assignments and examinations, classroom discussions

6. Interpret the causes of spatial and temporal patterns in abiotic and biotic traits. Written assignments and examinations, classroom discussions

IV. Course Level Justification
The class builds upon a foundation of basic biological, ecological and environmental knowledge. It assumes some proficiency with the vocabulary of biology and environmental sciences. It is similar to other senior level courses in ecology at other universities.

V. Topical Course Outline
A. Overview of Landscape Ecology
   1. Facets of Abiotic Traits-micro to global scales
      a. Precipitation
      b. Temperature
   2. Properties of Key Biotic traits
      a. Animal Abundances
      b. Species Distributions
   3. Watershed and Ecosystem Processes
      a. Biogeochemical Cycles
      b. Linkages between system components
   4. Food web Ecology
      a. Land
      b. Aquatic
      c. Marine
   5. Migration Ecology
      a. Birds
      b. Fish
      c. Mammals

B. Spatial and temporal patterns in Landscapes
   1. Spatial and temporal variation in Abiotic traits
      a. Precipitation
      b. Atmospheric Chemistry
      c. Temperature
   2. Spatial and temporal variation in biotic traits
      a. Birds
      b. Fish
c. Mammals
d. Insects
e. Human activities

C. Geographic Information Systems
   1. ArcGIS Introduction
   2. Data Collection
   3. Data Management
   4. Types of GIS files
      a. Shapefiles/geodata bases
   5. Retrieval of data-bases
   6. Development of Data layers
   7. Modeling techniques for GIS data

D. Application exercises in GIS and Spatial Ecology
   1. Compare existing techniques for modeling species distribution, habitat use, and niche selection
   2. Apply advanced spatial analysis techniques to real-world migration ecology, conservation biology, precipitation and biogeochemistry, food web ecology, and case examples based on Alaska, Arctic, Boreal and Global ecology.

VI. Suggested Texts

Gorr, W and K. Kurland. GIS Tutorial 1: Basic Workbook. 2010

VII. Bibliography
Journals that feature Spatial Ecology:

Ecological Monographs. Ecological Society of America. Ithaca, NY
Functional Ecology. Journals of the British Ecological Society
Oecologica. International Association for Ecology. Berlin
Landscape Ecology, Springer Verlag, NY
**Course Action Request**  
**University of Alaska Anchorage**  
Proposal to Initiate, Add, Change, or Delete a Course

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An exploration of the principles and techniques used for study and collection of baseline ecological data in remote landscapes. Course activities will focus on survey and analytical resources, and design of simple ecological projects as well as those with complex and multidisciplinary components.

The course is needed to provide majors in Biological Sciences and Natural Sciences with an upper division course in advanced ecological techniques. The addition is part of an overall curriculum revision in the Biological Sciences in which we aim to align our curriculum with the core concepts and competencies outlined in Vision and Change in Undergraduate Biology Education (National Science Foundation and American Association for the Advancement of Science).
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I. Date of Initiation: Spring 2014

II. Curriculum Action Request

A. College: College of Arts and Sciences
B. Course Prefix: BIOL
C. Course Number: A483
D. Number of Credits: 2
E. Contact Hours: 2+0
F. Course Title: Exploration Ecology
G. Grading Basis: A-F
H. Implementation Date: Fall 2015
I. Cross-listed/Stacked: N/A
J. Course Description: An exploration of the principles and techniques used for study and collection of baseline ecological data in remote landscapes. Course activities will focus on survey and analytical resources, and design of simple ecological projects as well as those with complex and multidisciplinary components.
K. Course Prerequisites: BIOL A271 with minimum grade of C
L. Course Co-requisites: BIOL A484
M. Other Restrictions: N/A
N. Registration Restrictions: Instructor Approval
O. Course Fees: No

III. Instructional Goals and Student Learning Outcomes

A. Instructional Goals. The instructor will:
   1. Provide a basic understanding of ecological survey and analysis
   2. Enable students to apply theory to field-based settings.
   3. Assist students in acquiring skills needed for acquisition and analysis of data, interpretation of results, and preparation of reports and publication.

B. Student Learning Outcomes and Assessment Measures

<table>
<thead>
<tr>
<th>Student Learning Outcomes: Upon completion of this course, the student will be able to:</th>
<th>Assessment Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Demonstrate understanding of critical aspects of ecological theory relating to acquisition of baseline data and information.</td>
<td>Exams and written assignments</td>
</tr>
<tr>
<td>2. Read, understand, and integrate information from scientific articles with that provided in lecture and textbook assignments, and to use this information to evaluate the scientific accuracy of reports from the popular press or public science.</td>
<td>Exams, written assignments, in-class presentations.</td>
</tr>
<tr>
<td>3. Communicate to others the results of original research they have conducted</td>
<td>Written reports, in-class presentations.</td>
</tr>
</tbody>
</table>
IV. Course Level Justification
This course is proposed to build field course offerings in the department and greater course depth in advanced ecology and environmental biology.

V. Topical Course Outline
A. Introduction
   1. Field Safety
   2. Planning a Research Program
B. Research Design
   1. Principles of Sampling
   2. Data Acquisition
   3. General Census Methods
   4. Data Mining
   5. General Survey Methods
   6. Data Reduction
   7. Introduction to Analysis
C. Introduction to Analysis
   1. Using R For Analysis
   2. Free-ware Software Programs
   3. Data Screening
D. Statistical Analysis
   1. Univariate Statistics
   2. Multivariate Statistics
   3. Group Analysis
E. Testing and Discrimination
   1. Multivariate Gradient Analysis
   2. Ordination
F. Photogrammetry and Image Analysis
G. Time Series Analysis
H. Reporting and Results Selection

VI. Suggested Texts


VII. Bibliography


### Course Action Request

**University of Alaska Anchorage**

**Proposal to Initiate, Add, Change, or Delete a Course**

<table>
<thead>
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<th>5b. Contact Hours (Lecture + Lab)</th>
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</thead>
<tbody>
<tr>
<td>BIOL</td>
<td>A484</td>
<td>N/A</td>
<td>4</td>
<td>(0+8)</td>
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</table>

#### 6. Complete Course Title

Experiential Learning: Exploration Ecology Field Study

EL: Exploration Ecology Field

Abbreviated Title for Transcript (30 character)

#### 7. Type of Course

- [X] Academic
- [ ] Preparatory/Development
- [ ] Non-credit
- [ ] CEU
- [ ] Professional Development

#### 8. Type of Action:

- [X] Add
- [ ] Change
- [ ] Delete

If a change, mark appropriate boxes:

- [ ] Prefix
- [ ] Credits
- [ ] Title
- [ ] Grading Basis
- [ ] Cross-Listed/Stacked
- [ ] Course Description
- [ ] Course Prerequisites
- [ ] Co-requisites
- [ ] Test Score Prerequisites
- [ ] Registration Restrictions
- [ ] Co-requisite(s)
- [ ] Registration Restrictions
- [ ] General Education Requirement
- [ ] Class
- [ ] Level
- [ ] College
- [ ] Major
- [ ] Other

(please specify)

#### 9. Repeat Status No / # of Repeats / Max Credits

- [X] A-F
- [ ] P/NP
- [ ] NG

#### 11. Implementation Date

- [X] From: Fall/2015
- [ ] To: Fall/9999

#### 12. Cross Listed with

- [ ] Stacked with

Cross-Listed Coordination Signature

#### 13a. Impacted Courses or Programs:

List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at [www.uaa.alaska.edu/governance](http://www.uaa.alaska.edu/governance).

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<tr>
<td>3.</td>
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<td></td>
</tr>
</tbody>
</table>

Initiator Name (typed): **Khrys Duddleston**  
Initiator Signed Initials: __________  
Date: __________

#### 13b. Coordination Email

submitted to Faculty Listserv: [uaa-faculty@lists.uaa.alaska.edu](mailto:uaa-faculty@lists.uaa.alaska.edu)

#### 13c. Coordination with Library Liaison

Date: **6Jan14**

#### 14. General Education Requirement

Mark appropriate box:

- [ ] Oral Communication
- [ ] Written Communication
- [ ] Quantitative Skills
- [ ] Humanities
- [ ] Social Sciences
- [ ] Natural Sciences
- [ ] Integrative Capstone

#### 15. Course Description

(suggested length 20 to 50 words)

Field exploration of the principles and techniques used for study and collection of baseline ecological data in remote landscapes. Course activities will focus on field survey and methodology, and design of simple ecological projects as well as those with complex and multidisciplinary components.

#### 16a. Course Prerequisite(s)

(list prefix and number or test code and score)

#### 16b. Co-requisite(s)

(concurrent enrollment required)

<table>
<thead>
<tr>
<th>BIOL A483</th>
</tr>
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</table>

#### 16c. Automatic Restriction(s)

- [ ] College
- [ ] Major
- [ ] Class
- [ ] Level

#### 16d. Registration Restriction(s)

(non-codable)

Instructor Approval

#### 17. Mark if course has fees

- [X] Mark if course is a selected topic course

#### 19. Justification for Action

The course is needed to provide majors in Biological Sciences and Natural Sciences with an upper division course in advanced ecological techniques. The addition is part of an overall curriculum revision in the Biological Sciences in which we aim to align our curriculum with the core concepts and competencies outlined in Vision and Change in Undergraduate Biology Education (National Science Foundation and American Association for the Advancement of Science).
<table>
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<tr>
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<th>Date</th>
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<th>Disapproved</th>
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<tbody>
<tr>
<td>Khrys Duddleston</td>
<td></td>
<td></td>
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<th>College/School Curriculum Committee Chair</th>
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</table>
I. Date of Initiation: Spring 2014

II. Curriculum Action Request
A. College: College of Arts and Sciences
B. Course Prefix: BIOL
C. Course Number: A484
D. Number of Credits: 4
E. Contact Hours: 0+8
F. Course Title: Experiential Learning: Exploration Ecology Field Study
G. Grading Basis: A-F
H. Implementation Date: Fall 2015
I. Cross-listed/Stacked: N/A
J. Course Description: Field exploration of the principles and techniques used for study and collection of baseline ecological data in remote landscapes. Course activities will focus on field survey and methodology, and design of simple ecological projects as well as those with complex and multidisciplinary components
K. Course Prerequisites: N/A
L. Course Co-requisites: BIOL A483
M. Other Restrictions: N/A
N. Registration Restrictions: Instructor Approval
O. Course Fees: Yes

III. Instructional Goals and Student Learning Outcomes
A. Instructional Goals. The instructor will:
1. Provide a basic understanding of ecological survey and analysis
2. Enable students to apply theory to field-based settings.
3. Assist students in acquiring skills needed for acquisition and analysis of data, interpretation of results, and preparation of reports and publication.

B. Student Learning Outcomes and Assessment Measures

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<th>Assessment Measures</th>
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<td>1. Design and conduct field based ecological research</td>
<td>Written assignments and data logs.</td>
</tr>
<tr>
<td>2. Utilize field-collected data in scientific analysis</td>
<td>Written assignments and reports</td>
</tr>
<tr>
<td>3. Initiate, understand, and follow appropriate safety, collection, landuse, and other regulations</td>
<td>Permits, forms, and reports</td>
</tr>
</tbody>
</table>
IV. **Course Level Justification**
This course builds field course offerings in the department and greater course depth in advanced ecology and environmental biology.

V. **Topical Course Outline**
- Lab 1: Lab and Field Safety
- Lab 2: Techniques of Sample Counts (Mark-Recapture, N-mixture Models)
- Lab 3: Techniques of Sample Counts 2
- Lab 4: Field Survey Techniques
- Lab 5: Distance Sampling, Indices, and Metrics
- Lab 6: Indirect Sampling by Proxy
- Lab 7: Indirect Sampling by Proxy 2
- Lab 8: Introduction to R Programming
- Lab 9: Multivariate Analysis, Groups
- Lab 10: Multivariate Analysis, Gradients
- Lab 11: Multivariate Analysis, Higher-order and Discrete
- Lab 12: Meta-Analysis.

VI. **Suggested Texts**

VII. **Bibliography**

Course Action Request  
University of Alaska Anchorage  
Proposal to Initiate, Add, Change, or Delete a Course

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<td>(3+0)</td>
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6. Complete Course Title  
Evolutionary Ecology  
Evolutionary Ecology  
Abbreviated Title for Transcript (30 character)  

7. Type of Course  
[ ] Academic  
[ ] Preparatory/Development  
[ ] Non-credit  
[ ] CEU  
[ ] Professional Development

8. Type of Action:  
[ ] Add  
[ ] Change  
[ ] Delete

If a change, mark appropriate boxes:  
[ ] Prefix  
[ ] Credits  
[ ] Title  
[ ] Grading Basis  
[ ] Course Description  
[ ] Test Score Prerequisites  
[ ] Automatic Restrictions  
[ ] Co-requisites  
[ ] Registration Restrictions  
[ ] General Education Requirement

9. Repeat Status No  
[ ] # of Repeats  
[ ] Max Credits

10. Grading Basis  
[ ] A-F  
[ ] P/NP  
[ ] NG

11. Implementation Date  
From: Fall/2015  
To: Fall/9999

12. [ ] Cross Listed with  
[ ] Stacked with  
Cross-Listed Coordination Signature

13a. Impacted Courses or Programs: List any programs or college requirements that require this course.  
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Initiator Name (typed): Khrys Duddleston  
Initiator Signed Initials: _________  
Date: __________________

13b. Coordination Email  
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison  
Date: 6Jan14

14. General Education Requirement  
Mark appropriate box:  
[ ] Oral Communication  
[ ] Written Communication  
[ ] Quantitative Skills  
[ ] Humanities  
[ ] Fine Arts  
[ ] Social Sciences  
[ ] Natural Sciences  
[ ] Integrative Capstone

15. Course Description (suggested length 20 to 50 words)  
Explores conceptual issues in the evolution of life histories and species interactions, as well as foundational and contemporary research in topics such as quantitative genetics, natural selection, and the evolution of sex. The course includes collection, interpretation, and integration of data into papers and presentations. Themes, including readings and case studies, will change with instructor.

16a. Course Prerequisite(s) (list prefix and number or test code and score)  
[BIOL A271 and BIOL A288] with minimum grade of C

16b. Co-requisite(s) (concurrent enrollment required)

16c. Automatic Restriction(s)

16d. Registration Restriction(s) (non-codable)

17. [ ] Mark if course has fees

18. [ ] Mark if course is a selected topic course

19. Justification for Action  
The course is needed to provide majors in Biological Sciences and Natural Sciences with an upper division course in evolutionary ecology. Creating new, permanent course as part of our overall curriculum revision, which seeks to streamline completion of the B.S. in Biological Sciences degree and align our degree with the core concepts and competencies outlined in Vision and Change in Undergraduate Biology Education (National Science Foundation and American Association for the Advancement of Science).
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<td>Provost or Designee</td>
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</table>
I. Date of Initiation: Spring 2014
II. Curriculum Action Request
A. College: College of Arts and Sciences
B. Course Prefix: BIOL
C. Course Number: A486
D. Number of Credits: 3
E. Contact Hours: 3+0
F. Course Title: Evolutionary Ecology
G. Grading Basis: A-F
H. Implementation Date: Fall 2015
I. Cross-listed/Stacked: N/A
J. Course Description: Explores conceptual issues in the evolution of life histories and species interactions, as well as foundational and contemporary research in topics such as quantitative genetics, natural selection, and the evolution of sex. The course includes collection, interpretation, and integration of data into papers and presentations.
K. Course Prerequisites: [BIOL A271 and BIOL A288] with minimum grade of C
L. Course Co-requisites: N/A
M. Other Restrictions: N/A
N. Registration Restrictions: None N/A

III. Instructional Goals and Student Learning Outcomes
A. Instructional Goals. The instructor will:
   1. Provide a basis for understanding the principles of the evolution.
   2. Explain common themes in the evolution of life histories
   3. Present foundational and contemporary studies for discussion.
   4. Contrast a range of approaches in the study of evolutionary ecology.
   5. Present important themes and primary literature in evolutionary ecology in the instructor’s area of expertise (e.g., vertebrate evolution, plant-animal interactions, etc.)

B. Student Learning Outcomes and Assessment Measures

<table>
<thead>
<tr>
<th>Student Learning Outcomes: Upon completion of this course, the student will be able to:</th>
<th>Assessment Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Contrast the ecological contexts that result in the evolution of various life history traits.</td>
<td>Examinations and/or written assignments</td>
</tr>
<tr>
<td>2. Synthesize the relationships of trait variation, heritability, and phenotypic selection to explain responses to evolution.</td>
<td>Examinations and/or written assignments</td>
</tr>
<tr>
<td>3. Evaluate foundational and contemporary research in evolutionary ecology.</td>
<td>Discussions and/or student presentations</td>
</tr>
</tbody>
</table>
IV. Course Level Justification
This course employs fundamental elements in evolution, genetics, and ecology in a synthetic approach to explore contemporary research questions in the field and is similar to other 400-level ecology courses offered at other universities.

V. Topical Course Outline
A. Introduction and Basic Principles
B. Fundamental Patterns in Evolution
   1. Macroevolutionary perspective: Speciation, Extinction, and Diversification Rates
C. Trait Variation and Natural Selection
   1. Phenotypic, Genotypic, Environmental Sources of Variation
   2. Changes in Trait Distribution Within Generations
D. Phenotypic Plasticity
   1. Genotype by Environmental Interactions
E. Fitness and Evolutionarily Stable Strategies
F. Quantitative Genetics and Heritability
   1. Additive and Non-Additive sources of Phenotypic Variation
   2. Measuring Trait Heritability
   3. Response to Selection
   4. Correlated Trait Evolution
G. Allocation and Trade-Offs
H. Evolution of Sex and Mating Systems
   1. Costs and Benefits of Gene Exchange
   2. Patterns of Outcrossing, Mixed Mating, and Self-fertilization
I. Sexual Selection
J. Evolutionary Patterns in Birth, Growth, and Death
   1. Offspring Number and Size
   2. Growth Rates
   3. Timing of Reproduction
   4. Senescence
K. Evolution of Species Interactions
   1. Coevolution
   2. Character Displacement
   3. Defense
   4. Mutualism
L. Patterns Specialization and Generalization

VI. Suggested Texts


VII. Bibliography


Additional reference books in thematic areas, for example:


## Course Action Request

**University of Alaska Anchorage**

Proposal to Initiate, Add, Change, or Delete a Course

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## Complete Course Title

Comparative Anatomy of Vertebrates

Abbreviated Title for Transcript (30 character):

- Comp. Anatomy of Vertebrates

## Type of Course

- Academic
- Preparatory/Development
- Non-credit
- CEU
- Professional Development

## Type of Action:

- Add
- Change
- Delete

If a change, mark appropriate boxes:

- Prefix
- Credits
- Title
- Grading Basis
- Course Description
- Test Score Prerequisites
- Automatic Restrictions
- Other CCG (please specify)

## Repeat Status No # of Repeats Max Credits

10. Grading Basis

- A-F
- P/NP
- NG

11. Implementation Date

- semester/year

From: Fall/2015
To: Fall/9999

12. Cross Listed with

- Stacked with

Cross-Listed Coordination Signature

## Impacted Courses or Programs:

List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at [www.uaa.alaska.edu/governance](http://www.uaa.alaska.edu/governance).

### Impact Program/Course Date of Coordination Chair/Coordinator Contacted

1. 
2. 
3. 

Initiator Name (typed): Khrys Duddleston Initiator Signed Initials: ______________ Date: ______________

13b. Coordination Email

Date: 6Jan14

submitted to Faculty Listserv: [uaa-faculty@lists.uaa.alaska.edu](mailto:uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison

Date: 6Jan14

14. General Education Requirement

Mark appropriate box:

- Oral Communication
- Written Communication
- Quantitative Skills
- Humanities
- Fine Arts
- Social Sciences
- Natural Sciences
- Integrative Capstone

## Course Description (suggested length 20 to 50 words)

A comparative exploration of vertebrate anatomy. The aim of the course is to investigate the links between the forms and functions of shared organ systems and to discuss their evolutionary, ecological and physiological implications.

## Course Prerequisite(s) (list prefix and number or test code and score)

BIOL A288 with minimum grade of C

## Co-requisite(s) (concurrent enrollment required)

## Registration Restriction(s) (non-codable)

## Mark if course has fees

## Mark if course is a selected topic course

## Justification for Action

We are removing the laboratory portion of the course. The course has been modified as part of our overall curriculum revision in which we aim to streamline the B.S. in Biological Sciences degree and align our curriculum with the core concepts and competencies outlined in Vison and Change in Undergraduate Biology Education (National Science Foundation and American Association for the Advancement of Science).

Initiator (faculty only)

Khrys Duddleston

Initiator (TYPE NAME)

Approved

Disapproved

Dean/Director of School/College

Date

Approved

Disapproved

Undergraduate/Graduate Academic

Date

Approved

Disapproved

Board Chair

Date

Approved

Disapproved

Provost or Designee

Date
University of Alaska Anchorage  
College of Arts and Sciences  
Course Content Guide

I. Date of Initiation: Spring 2014

II. Curriculum Action Request
A. College: College of Arts and Sciences
B. Course Prefix: BIOL
C. Course Number: A487
D. Number of Credits: 3
E. Contact Hours: 3+0
F. Course Title: Comparative Anatomy of Vertebrates
G. Grading Basis: A-F
H. Implementation Date: Fall 2015
I. Cross-listed/Stacked: N/A
J. Course Description: A comparative exploration of vertebrate anatomy.
The aim of the course is to investigate the links between the forms and functions of shared organ systems and to discuss their evolutionary, ecological and physiological implications
K. Course Prerequisites: BIOL A288 with minimum grade of C.
L. Course Co-requisites: N/A
M. Other Restrictions: N/A
N. Registration Restrictions: N/A
O. Course Fees: No

III. Instructional Goals and Student Learning Outcomes
A. Instructional Goals. The instructor will:
   1. Present the principles of comparative vertebrate anatomy and integrate biological principles of chordate (particularly vertebrate) structure, function and ecology.
   2. Characterize how organ systems within the vertebrates are related phylogenetically and evolutionarily.
   3. Describe important anatomical features and phylogenetic relationships within the vertebrates, including the comprehension of phylogenetic relationships.

B. Student Learning Outcomes and Assessment Measures

<table>
<thead>
<tr>
<th>Student Learning Outcomes: Upon completion of this course, the student will be able to:</th>
<th>Assessment Measures</th>
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<tbody>
<tr>
<td>1. Describe principles of comparative vertebrate anatomy mirrored by evolutionary associations between the structure, function and ecology of chordate phyla (particularly vertebrates).</td>
<td>Written assignments and examinations</td>
</tr>
<tr>
<td>2. Master and apply the necessary background knowledge and intellectual skills required to discuss and critically evaluate the fundamental features associated with vertebrate functional morphology and its evolution.</td>
<td>Written assignments and examinations</td>
</tr>
</tbody>
</table>
3. Identify vertebrate organ systems and their structure and functions

4. Master the vocabulary and nomenclature associated with the anatomy of the vertebrate organ systems

IV. Course Level Justification
This course is designed for Biological and Natural Sciences majors as an elective undergraduate course comparable to 400-level comparative anatomy of vertebrates courses offered at other universities. This course covers the principle concepts and processes of comparative vertebrate anatomy in the context of evolution and is essential to the student’s ability to succeed and integrate content with other 400-level courses in biological sciences.

V. Topical Course Outline
A. Evolution and Morphology
B. Origins of the Chordates
C. Vertebrate Diversity
   1. Aquatic vertebrates: Jawless fish, Cartilagenous fish, Bony fish
   2. Terrestrial vertebrates: Amphibians and Amniotes
D. Biological Design
   1. Size and shape
   2. Biomechanics
E. Life History and Vertebrate Development
F. Integumentary system (the skin)
G. Skeletal system
   1. Skull
   2. Axial skeleton
   3. Appendicular skeleton
H. Muscular system
I. Respiratory system
J. Circulatory system
K. Digestive system

VI. Suggested Texts

VII. Bibliography
## Course Action Request

**University of Alaska Anchorage**

Proposal to Initiate, Add, Change, or Delete a Course

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</table>

<table>
<thead>
<tr>
<th>2. Course Prefix</th>
<th>3. Course Number</th>
<th>4. Previous Course Prefix &amp; Number</th>
<th>5a. Credits/CEUs</th>
<th>5b. Contact Hours (Lecture + Lab)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL</td>
<td>A488</td>
<td>N/A</td>
<td>4</td>
<td>(2+4)</td>
</tr>
</tbody>
</table>

### 6. Complete Course Title

**Experiential Learning: Developmental Biology**

**EL: Developmental Biology**

Abbreviated Title for Transcript (30 character)

### 7. Type of Course

- Academic
- Preparatory/Development
- Non-credit
- CEU
- Professional Development

### 8. Type of Action:

- [ ] Add
- [ ] Change
- [x] Delete

*If a change, mark appropriate boxes:

- Prefix
- Credits
- Title
- Grading Basis
- Course Description
- Test Score Prerequisites
- Contact Hours
- Co-requisites
- Registration Restrictions
- General Education Requirement
- Other CCG (please specify)

### 9. Repeat Status

- No
- # of Repeats
- Max Credits

### 10. Grading Basis

- [x] A-F
- [ ] P/NP
- [ ] NG

### 11. Implementation Date

- semester/year
  
  From: Fall/2015  
  To: Fall/9999

### 12. Cross Listed with

- [ ] Stacked with

Cross-Listed Coordination Signature

### 13a. Impacted Courses or Programs: List any programs or college requirements that require this course.

*Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at [www.uaa.alaska.edu/governance](http://www.uaa.alaska.edu/governance).*

<table>
<thead>
<tr>
<th>Impacted Program/Course</th>
<th>Date of Coordination</th>
<th>Chair/Coordinator Contacted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Date:</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Date:</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Date:</td>
<td></td>
</tr>
</tbody>
</table>

Initiator Name (typed): **Khrys Duddleston**  
Initiator Signed Initials: _________  
Date: __________________

### 13b. Coordination Email

submitted to Faculty Listserv: [uaa-faculty@lists.uaa.alaska.edu](mailto:uaa-faculty@lists.uaa.alaska.edu)

### 13c. Coordination with Library Liaison

Date: 6Jan14

### 14. General Education Requirement

- [ ] Oral Communication
- [ ] Written Communication
- [ ] Quantitative Skills
- [ ] Humanities
- [ ] Fine Arts
- [ ] Social Sciences
- [ ] Natural Sciences
- [ ] Integrative Capstone

### 15. Course Description (suggested length 20 to 50 words)

An in depth study of the molecular and cellular principles which underlie the development of tissues and organ systems in animals, including classical embryology through utilization of numerous laboratory techniques within an authentic experiential learning environment.

### 16. Course Prerequisite(s) (list prefix and number or test code and score)

- BIOL A252 with minimum grade of C

### 16b. Co-requisite(s) (concurrent enrollment required)

### 16c. Automatic Restriction(s)

- [ ] College
- [ ] Major
- [ ] Class
- [ ] Level

### 16d. Registration Restriction(s) (non-codable)

### 17. [x] Mark if course has fees

### 18. [ ] Mark if course is a selected topic course

### 19. Justification for Action

The title, description and contact hours are being updated to reflect course design and content. As part of our overall curriculum revision, which seeks to align our degree with the core concepts and competencies in Vision and Change in Undergraduate Biology Education (National Science Foundation and American Association for the Advancement of Science), this course will become part of our rotation of upper division electives in molecular biology. It is being revised as an experiential learning course which combines conceptual theory and an authentic laboratory experience into a single course.
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<th>Date</th>
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</tr>
<tr>
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<tr>
<td>College/School Curriculum Committee Chair</td>
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<td>Provost or Designee</td>
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<tr>
<td></td>
<td>Disapproved</td>
<td></td>
</tr>
</tbody>
</table>
University of Alaska Anchorage
College of Arts and Sciences
Course Content Guide

I. Date of Initiation: Spring 2014

II. Curriculum Action Request
A. College: College of Arts and Sciences
B. Course Prefix: BIOL
C. Course Number: A488
D. Number of Credits: 4
E. Contact Hours: 2+4
F. Course Title: Experiential Learning: Developmental Biology
G. Grading Basis: A-F
H. Implementation Date: Fall 2015
I. Cross-listed/Stacked: N/A
J. Course Description: An in depth study of the molecular and cellular principles which underlie the development of tissues and organ systems in animals, including classical embryology through utilization of numerous laboratory techniques within an authentic experiential learning environment.
K. Course Prerequisites: BIOL A252 with minimum grade of C.
L. Course Co-requisites: N/A
M. Other Restrictions: N/A
N. Registration Restrictions: None
O. Course Fees: Yes

III. Instructional Goals and Student Learning Outcomes
A. Instructional Goals. The instructor will:
   1. Explain and provide a framework for understanding the principles and key concepts of development, and describe the process.
   2. Provide hands-on examples by which genes in the fertilized egg control cell behavior in the embryo to determine its pattern, form and behavior.
   3. Discuss the latest research findings relevant to embryogenesis and how genes and epigenetics control cell behavior and development.
   4. Train students in classical histology and in the latest research techniques in developmental biology.

B. Student Learning Outcomes and Assessment Measures

<table>
<thead>
<tr>
<th>Student Learning Outcomes: Upon completion of this course, the student will be able to:</th>
<th>Assessment Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Illustrate the fundamental concepts of development in animals.</td>
<td>In class discussions, written assignments</td>
</tr>
<tr>
<td>2. Evaluate the mechanisms by which gene expression controls specific aspects of development in different model organisms.</td>
<td>Hands-on experiential learning including mating/fertilization, developmental staging, and RNA interference and analysis; written lab reports; in-class discussions</td>
</tr>
<tr>
<td>3. Analyze data presented in the primary literature on developmental biology.</td>
<td>Presentations, in class discussions</td>
</tr>
</tbody>
</table>
4. Formulate and test hypotheses regarding the role of specific genes or epigenetic effects on development.

Experimental design and implementation, data analysis, written assignment, in class discussion

IV. Course Level Justification
This course is designed for Biological and Natural Sciences majors as an elective undergraduate course comparable to 400-level developmental biology courses offered at other universities.

V. Topical Course Outline
A. Basic concepts of development
B. Model organisms
   1. Xenopus, axolotls, Drosophila, sea urchin, chick, pig
C. Developmental genes
D. Vertebrate body axes
E. Specification of vertebrate germ layers
F. Gastrulation
G. Somite formation and patterning
H. Organizer region and neural induction
I. Maternal and early embryonic genes
J. Segmentation and homeotic genes
K. Neural tube formation, neural crest migration and other cell movements
L. Epigenetics and gene expression in development
M. Inheritance of patterns of gene expression
N. Control of gene expression
O. Organogenesis and limb formation
P. Axonal guidance and synapse formation
Q. Sex determination
R. Germ cells and fertilization
S. Regeneration
T. Growth, metamorphosis, aging
U. Evolution and development

VI. Suggested Texts

VII. Bibliography

Primary literature from journals such as Development, Mechanisms of Development, Science, Cell, Nature, and similar titles.
### Course Action Request

**University of Alaska Anchorage**

**Proposal to Initiate, Add, Change, or Delete a Course**

1a. **School or College**
   - AS CAS

1b. **Division**
   - AMSC Division of Math Science

1c. **Department**
   - Biological Sciences

<table>
<thead>
<tr>
<th>2. Course Prefix</th>
<th>3. Course Number</th>
<th>4. Previous Course Prefix &amp; Number</th>
<th>5a. Credits/CEUs</th>
<th>5b. Contact Hours (Lecture + Lab)</th>
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<tr>
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<td>N/A</td>
<td>1.0</td>
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6. **Complete Course Title**
   - Instructional Practicum: Laboratory
   - Instructional Practicum: Lab

   **Abbreviated Title for Transcript (30 character)**

7. **Type of Course**
   - [x] Academic
   - [ ] Preparatory/Development
   - [ ] Non-credit
   - [ ] CEU
   - [ ] Professional Development

8. **Type of Action:**
   - [ ] Add
   - [ ] Change
   - [ ] Delete

   *If a change, mark appropriate boxes:*
   - [ ] Prefix
   - [ ] Course Number
   - [ ] Contact Hours
   - [ ] Repeat Status
   - [ ] Grading Basis
   - [ ] Cross-Listed/Stacked
   - [x] Course Description
   - [ ] Course Prerequisites
   - [ ] Co-requisites
   - [ ] Test Score Prerequisites
   - [ ] Registration Restrictions
   - [ ] General Education Requirement
   - [ ] Class
   - [ ] Level
   - [ ] College
   - [ ] Major
   - [ ] Other CCG (please specify)

9. **Repeat Status**
   - Yes
   - # of Repeats: 1
   - Max Credits: 2

10. **Grading Basis**
   - [x] A-F
   - [ ] P/NP
   - [ ] NG

11. **Implementation Date**
    - From: Fall/2015
    - To: Fall/9999

12. **Cross Listed with**
    - [ ] Stacked with

13a. **Impacted Courses or Programs:**
    - List any programs or college requirements that require this course.

    *Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.*

    | Impacted Program/Course | Date of Coordination | Chair/Coordinator Contacted |
    |-------------------------|----------------------|-----------------------------|
    | 1.                      |                      |                             |
    | 2.                      |                      |                             |
    | 3.                      |                      |                             |

13b. **Initiator Name (typed):** Khrys Duddleston  
    **Initiator Signed Initials:** _________  
    **Date:** __________________

13c. **Coordination with Library Liaison**
    - Date: 6Jan14

14. **General Education Requirement**
    - Mark appropriate box:
      - [ ] Oral Communication
      - [ ] Written Communication
      - [ ] Quantitative Skills
      - [ ] Humanities
      - [ ] Fine Arts
      - [ ] Social Sciences
      - [ ] Natural Sciences
      - [ ] Integrative Capstone

15. **Course Description** *(suggested length 20 to 50 words)*
    - Supervised instructional experience in a 2-hr, 3-hr or 4-hr biology laboratory or experiential learning course. Planning, presentation of material, achievement testing and correlation with lecture under the direct supervision of department faculty. Add Special Note about Repeat and mimic original description.

16a. **Course Prerequisite(s)** *(list prefix and number or test code and score)*
    - N/A

16b. **Co-requisite(s)** *(concurrent enrollment required)*

16c. **Automatic Restriction(s)**
    - [ ] College
    - [ ] Major
    - [ ] Class
    - [ ] Level

17. **Mark if course has fees**
18. **Mark if course is a selected topic course**

19. **Justification for Action**
    - Update of CCG: modifying instructional goals and student expectations

---

**Initiator (faculty only)**

**Khrys Duddleston**  
**Initiator (TYPE NAME)**

**Approved**

**Disapproved**

<table>
<thead>
<tr>
<th>Department Chair</th>
<th>Date</th>
</tr>
</thead>
</table>

**Approved**

**Department Chair**

**Disapproved**

**Approved**

**Undergraduate/Graduate Academic Board Chair**

**Disapproved**

**Approved**

**Provost or Designee**

**Disapproved**

**Date**

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468
I. Date of Initiation: Spring 2014

II. Curriculum Action Request
A. College: College of Arts and Sciences
B. Course Prefix: BIOL
C. Course Number: A495
D. Number of Credits: 1
E. Contact Hours: 0+3
F. Course Title: Instructional Practicum: Laboratory
G. Grading Basis: A-F
H. Implementation Date: Fall 2015
I. Cross-listed/Stacked: N/A
J. Course Description: Supervised instructional experience in a 2-hr, 3-hr or 4-hr biology laboratory or experiential learning course. Planning, presentation of material, achievement testing and correlation with lecture under the direct supervision of department faculty. Special Note: May be repeated once for credit.

K. Course Prerequisites: N/A
L. Course Co-requisites: N/A
M. Other Restrictions: N/A
N. Registration Restrictions: Minimum 20 credits in BIOL
O. Course Fees: No

III. Instructional Goals and Student Learning Outcomes
A. Instructional Goals. The instructor will:
1. Mentor students in learning how to teach effectively
2. Model appropriate instructor/student relationship and instructor ethics in and out of the classroom
3. Actively guide students in pedagogical methods and techniques to assist and answer student questions
4. Provide supervisory coordination to maintain the coordinated delivery of practical and lecture materials and presentations

B. Student Learning Outcomes and Assessment Measures

<table>
<thead>
<tr>
<th>Students will be able to:</th>
<th>Assessment Method:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Apply basic pedagogical skills by delivering instructional presentations in an experiential learning or laboratory setting.</td>
<td>Presentations, assisting instructor and students</td>
</tr>
<tr>
<td>2. Apply theoretical and practical teaching tools to organize, plan, present, demonstrate, assess and nurture student learning in an experiential learning or laboratory setting.</td>
<td>Presentations, assisting instructor and students</td>
</tr>
</tbody>
</table>
3. Effectively communicate skills in an experiential learning or laboratory setting.

Presentations, assisting instructor and students

IV. Course Level Justification
Designed for Biological and Natural Sciences majors and as elective undergraduate course comparable to 400-level teaching practica offered at other universities. Enables students to plan and present materials, conduct exams and quizzes, and correlate laboratory presentations with lecture material under direct supervision and mentoring of department faculty.

V. Topical Course Outline
A. Student will attend all weekly laboratory sessions for the course assigned
B. Student will attend all weekly planning meetings
C. Student will assist course enrollees with experiments and answer questions during class
D. Student will prepare and deliver 2 separate laboratory/experiential learning lead-ins
   1. Student will help prepare quizzes, exam questions and homework questions associated with the 2 laboratory lead-ins they prepare
   2. Student will help grade quizzes, exam questions and homework questions associated with the 2 laboratory lead-ins they prepare

VI. Suggested Texts
The text will vary depending on the assigned class for instructor practicum.

VII. Bibliography

8Jan14

To: CAS Course and Curriculum Committee
   Undergraduate Academic Board

From: Khrys Duddleston, Chair
       Department of Biological Sciences Curriculum Committee

RE: Changes to the B.A. in Biological Sciences Degree

The Department of Biological Sciences proposes the following changes to the B.A. in Biological Sciences Degree

1. Changes to the core course requirements
2. Organize upper division electives into five areas
3. Updating upper division course offerings

These changes are intended to ensure that core course requirements prepare students for upper division electives as well as improve the depth and breadth of exposure to sub disciplines within the biological sciences. The purpose for making these changes is to improve the time to completion of the degree and align our curriculum with the core concepts and competencies outlined in Vision and Change in Undergraduate Biology Education: A Call to Action (2013), a report of a national conference organized by the American Association for the Advancement of Science with support from the National Science Foundation.

Please contact me if you have any additional questions.
<table>
<thead>
<tr>
<th>1a. School or College</th>
<th>1b. Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS CAS</td>
<td>Biological Sciences</td>
</tr>
</tbody>
</table>

2. Complete Program Title/Prefix

   Bachelor of Arts, Biological Sciences

3. Type of Program

   Choose one from the appropriate drop down menu:

   Undergraduate: Bachelor of Arts or Graduate: CHOOSE ONE

   This program is a Gainful Employment Program: [ ] Yes or [X] No

4. Type of Action:

   PROGRAM: [ ] Add [X] Change [ ] Delete

   PREFIX: [ ] Add [ ] Change [ ] Inactivate

5. Implementation Date (semester/year)

   From: Fall/2015 To: Fall/9999

6a. Coordination with Affected Units

   Department, School, or College: CAS

   Initiator Name (typed): Khrys Duddleston

   Initiator Signed Initials: [ ]

   Date: [ ]

6b. Coordination Email submitted to Faculty Listserv (uaa-faculty@lists.uaa.alaska.edu)

   Date: 6Jan14

6c. Coordination with Library Liaison

   Date: 6Jan14

7. Title and Program Description - Please attach the following:

   [X] Cover Memo [X] Catalog Copy in Word using the track changes function

8. Justification for Action

   The purpose for making these changes is to improve the time to completion of the degree and align our curriculum with the core concepts and competencies outlined in Vision and Change in Undergraduate Biology Education: A Call to Action (2013), a report of a national conference organized by the American Association for the Advancement of Science with support from the National Science Foundation.
8Jan14

To: CAS Course and Curriculum Committee
   Undergraduate Academic Board

From: Khrys Duddleston, Chair
       Department of Biological Sciences Curriculum Committee

RE: Changes to the B.S. in Biological Sciences Degree

The Department of Biological Sciences proposes the following changes to the B.S. in Biological Sciences Degree

1. Changes to the core course requirements
2. Organize upper division electives into five areas
3. Require students to take a minimum of three credits in four of the five areas, and a minimum of six experiential learning credits from 2 of the five areas

These changes are intended to ensure that core course requirements prepare students for upper division electives as well as improve the depth and breadth of exposure to sub disciplines within the biological sciences. The purpose for making these changes is to improve the time to completion of the degree and align our curriculum with the core concepts and competencies outlined in Vision and Change in Undergraduate Biology Education: A Call to Action (2013), a report of a national conference organized by the American Association for the Advancement of Science with support from the National Science Foundation.

Please contact me if you have any additional questions.
Program/Prefix Action Request
University of Alaska Anchorage
Proposal to Initiate, Add, Change, or Delete a Program of Study or Prefix

1a. School or College
AS CAS

1b. Department
Biological Sciences

2. Complete Program Title/Prefix
Bachelor of Science, Biological Sciences

3. Type of Program
Choose one from the appropriate drop down menu:
Undergraduate: or Graduate:
Bachelor of Science
CHOOSE ONE

This program is a Gainful Employment Program:
☐ Yes or ☒ No

4. Type of Action:
PROGRAM
☐ Add
☒ Change
☐ Delete

PREFIX
☐ Add
☐ Change
☐ Inactivate

5. Implementation Date (semester/year)
From: Fall/2015 To: Fall/9999

6a. Coordination with Affected Units
Department, School, or College: CAS
Initiator Name (typed): Khrys Duddleston
Initiator Signed Initials: _________
Date:________________

6b. Coordination Email submitted to Faculty Listserv (uaa-faculty@lists.uaa.alaska.edu) Date: 6Jan14

6c. Coordination with Library Liaison Date: 6Jan14

7. Title and Program Description - Please attach the following:
☒ Cover Memo ☒ Catalog Copy in Word using the track changes function

8. Justification for Action
The purpose for making these changes is to improve the time to completion of the degree and align our curriculum with the core concepts and competencies outlined in Vision and Change in Undergraduate Biology Education: A Call to Action (2013), a report of a national conference organized by the American Association for the Advancement of Science with support from the National Science Foundation.

Initiator (faculty only)
Khrys Duddleston
Initiator (TYPE NAME)

Dean/Director of School/College
Date

Undergraduate/Graduate Academic Board Chair
Date

Provost or Designee
Date
BIOLOGICAL SCIENCES

ConocoPhillips Integrated Sciences Building (CPSB), Room 101P, (907) 786-4770
www.uaa.alaska.edu/biology

Biology is the science concerned with the study of living organisms. It encompasses a vast range of biological disciplines, from the study of microbes and molecular biology to the study of plants, animals and the environment. The undergraduate program in the Biological Sciences includes courses that provide students with a broad understanding of both traditional and modern biological sciences. These courses are suitable as preparation for professional degrees, teaching, or careers in government or industry. Both the Bachelor of Arts and the Bachelor of Science degrees are available for undergraduates. A Master of Science degree program in Biological Sciences as well as a joint UAA-UAF Doctor of Science degree program is available for students already holding a baccalaureate degree.

A program of study in the biological sciences requires completion of a basic science core curriculum in the chemical, physical and mathematical sciences as well as required and elective courses in the biological sciences. A degree in the biological sciences prepares students who wish to pursue careers in medicine, dentistry, veterinary medicine, ecology and the environmental sciences in the private or public sector, or who wish to attend graduate school. Students are strongly encouraged to consult with their academic advisors within the Department of Biological Sciences to determine which electives best suit their programmatic needs and career requirements.

The Bachelor of Arts and the Bachelor of Science degree programs require a total of 120-125 credits for graduation and can be completed in four years by students who have had adequate high school preparation in math and sciences. Refer to the beginning of this chapter for recommended high school courses.

Program Student Learning Outcomes

It is expected that graduates of the Biological Sciences program will:

1. Demonstrate an understanding of the core concepts in the biological sciences: evolution; structure and function relationships; information flow, exchange and storage; transformation of energy and matter
2. Apply the process of science and construct knowledge through observations, experimentation, quantitative reasoning and hypothesis testing
3. Read, analyze and synthesize primary literature, and communicate scientific concepts and data in written and oral form

Community Service Courses

The department offers a wide range of community service courses as a service to the people in the Anchorage area and extended campuses who wish to become more knowledgeable about the science of biology and how it relates to them. Unless noted otherwise in the course description, community service courses do not satisfy either core requirements or elective credit toward any degree programs in the biological sciences. All are offered as demand warrants.

- BIOL A074  Field Natural History
- BIOL A075  Local Flora
- BIOL A100  Human Biology
- BIOL A124  Biota of Alaska: Selected Topics
- BIOL A126  Birds in Field and Laboratory

Departmental Honors in Biology

Undergraduate Biological Science majors may be recognized for exceptional performance by earning departmental honors in Biology. In order to receive honors in biology, a student must meet each of the following requirements:

1. Meet the requirements for Graduation with Honors as listed in Chapter 7.
2. Meet the requirements for a BA/BS degree in Biological Sciences.
3. Earn a grade point average of 3.50 or above in the major requirements.
4. During the senior year of their academic program, the student must gain faculty approval for and complete, with a grade of B or better, a senior thesis research project, with enrollment in BIOL A499 Senior Thesis. Biological Science faculty members must approve the project proposal and final written report.

**Bachelor of Arts, Biological Sciences**

**Admission Requirements**

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7.

**Academic Progress**

To graduate with a BA in Biological Sciences, the student must complete all courses covered under Major Requirements for a BA in Biological Sciences with a grade of C or better. All prerequisites for Biology courses must be completed with a grade of C or better. Students who audit, or are unable to earn a grade of C or better in, a lower-division (100 or 200 level) course in the Department of Biological Sciences (BIOL) may repeat the course two additional times on a space available basis. Students who audit, or are unable to earn a grade of C or better in, an upper-division (300 or 400 level) course in the Department of Biological Sciences may repeat the course one additional time on a space available basis. Students repeating a course in the Department of Biological Sciences are required to complete all components of that course during the semester in which the course is retaken. When repeating a course with a linked lecture and laboratory component, both components must be repeated. Students enrolled in a laboratory or Experiential Learning course in the Department of Biological Sciences must attend the lab or course the first week of class or they may be administratively dropped.

**Graduation Requirements**

Students must complete the following graduation requirements:

**A. General University Requirements**

Complete the General University Requirements for All Baccalaureate Degrees located at the beginning of this chapter.

**B. General Education Requirements**

Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

**C. College of Arts and Sciences Requirements**

Complete the College of Arts and Sciences Requirements listed at the beginning of the CAS section.

**D. Major Requirements**

1. Complete these required core courses (34-35 credits):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL A108</td>
<td>Principles and Methods in Biology</td>
<td>6</td>
</tr>
<tr>
<td>BIOL A242</td>
<td>Fundamentals of Cell Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL A252</td>
<td>Principles of Genetics</td>
<td>3</td>
</tr>
<tr>
<td>BIOL A271</td>
<td>Principles of Ecology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL A288</td>
<td>Principles of Evolution</td>
<td>3</td>
</tr>
<tr>
<td>BIOL A243</td>
<td>Experiential Learning; Genetics and Cell Biology</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>or</td>
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<tr>
<td>BIOL A273</td>
<td>Experiential Learning; Ecology and Evolution</td>
<td>4</td>
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<tr>
<td>BIOL A492</td>
<td>Undergraduate Seminar</td>
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<tr>
<td>CHEM A105</td>
<td>General Chemistry I</td>
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<tr>
<td>CHEM A105L</td>
<td>General Chemistry I Laboratory</td>
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<tr>
<td>CHEM A106</td>
<td>General Chemistry II</td>
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<tr>
<td>CHEM A106L</td>
<td>General Chemistry II Laboratory</td>
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<tr>
<td>STAT A252</td>
<td>Elementary Statistics (3)</td>
<td>3-4</td>
</tr>
</tbody>
</table>
2. Complete 18-19 credits of upper division program electives from the following areas.
   a. A minimum of 3 credits must come from each of 4 of the 5 areas.*
   b. A minimum of 6 credits must be Experiential Learning from 2 areas**. 18-19

Genetics, Cellular and Molecular Biology

BIOL A340  Microbial Biology (3)
BIOL A451  Microbial Biotechnology (3)
BIOL A452  Human Genome (3)
BIOL A461  Molecular Biology (3)
BIOL A462  Virology (3)
BIOL A463  Molecular Biology of Cancer (3)
BIOL A464  Metals in Biology (3)
BIOL A471  Immunology (3)

BIOL A342  Experiential Learning: Microbial Biology (4)
BIOL A403  Experiential Learning: Microscopical Tissue Techniques (6)
BIOL A454  Experiential Learning: Microbial Biotechnology (4)
BIOL A455  Experiential Learning: Bioinformatics (4)
BIOL A465  Experiential Learning: Molecular Biology (4)
BIOL A488  Experiential Learning: Developmental Biology (4)

Ecology and Evolution

BIOL A365  Astrobiology (3)
BIOL A430  Marine Mammals and Seabirds (3)
BIOL A441  Animal Behavior (3)
BIOL A445  Plant-Herbivore Ecology (4)
BIOL A450  Microbial Ecology (3)
BIOL A472  Biogeography (3)
BIOL A473  Conservation Biology (3)
BIOL A474  Ecotoxicology (3)
BIOL A475  Fish Ecology (3)
BIOL A476  Wildlife Population Dynamics and Management (3)
BIOL A477  Tundra and Taiga Ecosystems (3)
BIOL A478  Biological Oceanography (3)
BIOL A479  Physiological Plant Ecology (3)
BIOL A480  Ecological and Conservation Genetics (3)
BIOL A481  Marine Biology (3)
BIOL A482  Spatial Ecology (3)
BIOL A483  Exploration Ecology (2)
BIOL A486  Evolutionary Ecology (3)
BIOL A489  Population Genetics and Evolutionary Processes (3)

BIOL A442  Experiential Learning: Animal Behavior (3)
BIOL A453  Experiential Learning: Microbial Ecology (4)
BIOL A484  Experiential Learning: Exploration Ecology Field Study (4)
### Diversity and Organismal Biology

- BIOL A320 Vertebrate Biology (3)
- BIOL A330 Plant Biology (3)
- BIOL A340 Microbial Biology (3)
- BIOL A423 Ichthyology (3)
- BIOL A427 Marine Invertebrate Biology (3)
- BIOL A430 Marine Mammals and Seabirds (3)
- BIOL A431 Plant Diversity and Evolution (3)
- BIOL A487 Comparative Anatomy of Vertebrates (3)
- BIOL A321 Experiential Learning: Vertebrate Biology (2)
- BIOL A332 Experiential Learning: Plant Biology (2)
- BIOL A342 Experiential Learning: Microbial Biology (4)

### Physiology

- BIOL A310 Principles of Animal Physiology (3)
- BIOL A316 Principles of Plant Physiology (3)
- BIOL A412 Behavioral Endocrinology (3)
- BIOL A413 Neurophysiology (3)
- BIOL A414 Chronobiology (3)
- BIOL A415 Comparative Animal Physiology (3)
- BIOL A416 Exercise Physiology (3)
- BIOL A418 Fish Physiology (3)
- BIOL A479 Physiological Plant Ecology (3)
- BIOL A487 Comparative Anatomy of Vertebrates (3)

### Additional Upper Division Electives

- BIOL A456 Nonlinear Dynamics and Chaos (3)
- BIOL A490 Selected Lecture Topics in Biology (1-3)
- BIOL A495 Instructional Practicum: Laboratory (1)
- BIOL A497 Independent Study in Biology (1-12)
- BIOL A498 Individual Research (1-6)
- BIOL A499 Senior Thesis (3)
- BIOL A490L Selected Laboratory Topics in Biology (1-3)
- BIOL A406 Experiential Learning: Biostatistics (4)
- BIOL A408 Experiential Learning: Scanning Electron Microscopy (SEM)

*Several courses are listed under more than one area. Each course can only count toward the credit requirement in one area.*

**BIOL A498 credits may not be counted toward the Experiential Learning minimum requirement**

**BIOL A490L credits may be counted toward the Experiential Learning minimum requirement**

3. It is recommended that students complete 8 credits from the following:

- GEOL A111 Physical Geology (4)
- GEOL A221 Historical Geology (4)
- or
- PHYS A123 Basic Physics I (3)
- and
- PHYS A123L Basic Physics I Laboratory (1)
- PHYS A124 Basic Physics II (3)
4. A total of 124 credits is required for the degree, 42 credits of which must be upper division.

Bachelor of Science, Biological Sciences

The Bachelor of Science degree includes a single core program of coursework with electives selected from 4 sub-disciplines within the biological sciences. A wide selection of electives is available to all students, including courses offered under BIOL A490, which is a selected topics course. It is imperative that students consult their academic advisors within the Department of Biological Sciences to determine which electives are most appropriate to their career interests. Some of these elective courses are offered periodically, depending on demand. Refer to course descriptions to identify these courses.

Admission Requirements

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7.

Academic Progress

To graduate with a BS in Biological Sciences, the student must complete all courses covered under Major Requirements for a BS in Biological Sciences with a grade of C or better. All prerequisites for Biology courses must be completed with a grade of C or better. Students who audit, or are unable to earn a grade of C or better in, a lower-division (100 or 200 level) course in the Department of Biological Sciences (BIOL) may repeat the course two additional times on a space available basis. Students who audit, or are unable to earn a grade of C or better in, an upper-division (300 or 400 level) course in the Department of Biological Sciences may repeat the course one additional time on a space available basis. Students repeating a course in the Department of Biological Sciences are required to complete all components of that course during the semester in which the course is retaken. When repeating a course with a linked lecture and laboratory component, both components must be repeated. Students enrolled in a laboratory or Experiential Learning course in the Department of Biological Sciences must attend the lab or course the first week of class or they may be administratively dropped.

Graduation Requirements

Students must complete the following graduation requirements:

A. General University Requirements

Complete the General University Requirements for All Baccalaureate Degrees located at the beginning of this chapter.

B. General Education Requirements

Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C. College of Arts and Sciences Requirements

Complete the College of Arts and Sciences Requirements listed at the beginning of the CAS section.

D. Major Requirements

1. Some major requirements may also be used to satisfy the College of Arts and Sciences BS requirements.
2. Complete these required support courses (36 credits):

   - CHEM A105  General Chemistry I  3
   - CHEM A105L General Chemistry I Laboratory  1
   - CHEM A106  General Chemistry II  3
3. Complete Biological Sciences core courses (22 credits):

- BIOL A108 Principles and Methods in Biology 6
- BIOL A242 Fundamentals of Cell Biology 3
- BIOL A252 Principles of Genetics 3
- BIOL A271 Principles of Ecology 3
- BIOL A288 Principles of Evolution 3
- BIOL A243 Experiential Learning: Genetics and Cell Biology 4
  or
- BIOL A273 Experiential Learning: Ecology and Evolution 4
- BIOL A492 Undergraduate Seminar 1

4. Complete at least 24 credits of upper division program electives from the following areas.
   a. A minimum of 3 credits must come from each of 4 of the five 5 areas*.
   b. A minimum of 6 credits must be Experiential Learning from 2 areas**. 24

**Genetics, Cellular and Molecular Biology**

- BIOL A340 Microbial Biology (3)
- BIOL A451 Microbial Biotechnology (3)
- BIOL A452 Human Genome (3)
- BIOL A461 Molecular Biology (3)
- BIOL A462 Virology (3)
- BIOL A463 Molecular Biology of Cancer (3)
- BIOL A464 Metals in Biology (3)
- BIOL A471 Immunology (3)
- BIOL A342 Experiential Learning: Microbial Biology (4)
- BIOL A403 Experiential Learning: Microscopical Tissue Techniques (6)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL A454</td>
<td>Experiential Learning: Microbial Biotechnology</td>
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<tr>
<td>BIOL A455</td>
<td>Experiential Learning: Bioinformatics</td>
<td>(4)</td>
</tr>
<tr>
<td>BIOL A465</td>
<td>Experiential Learning: Molecular Biology</td>
<td>(4)</td>
</tr>
<tr>
<td>BIOL A488</td>
<td>Experiential Learning: Developmental Biology</td>
<td>(4)</td>
</tr>
<tr>
<td></td>
<td><strong>Ecology and Evolution</strong></td>
<td></td>
</tr>
<tr>
<td>BIOL A365</td>
<td>Astrobiology</td>
<td>(3)</td>
</tr>
<tr>
<td>BIOL A430</td>
<td>Marine Mammals and Seabirds</td>
<td>(3)</td>
</tr>
<tr>
<td>BIOL A441</td>
<td>Animal Behavior</td>
<td>(3)</td>
</tr>
<tr>
<td>BIOL A445</td>
<td>Plant-Herbivore Ecology</td>
<td>(4)</td>
</tr>
<tr>
<td>BIOL A450</td>
<td>Microbial Ecology</td>
<td>(3)</td>
</tr>
<tr>
<td>BIOL A472</td>
<td>Biogeography</td>
<td>(3)</td>
</tr>
<tr>
<td>BIOL A473</td>
<td>Conservation Biology</td>
<td>(3)</td>
</tr>
<tr>
<td>BIOL A474</td>
<td>Ecotoxicology</td>
<td>(3)</td>
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<tr>
<td>BIOL A475</td>
<td>Fish Ecology</td>
<td>(3)</td>
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<tr>
<td>BIOL A476</td>
<td>Wildlife Population Dynamics and Management</td>
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<td>Tundra and Taiga Ecosystems</td>
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<td>Biological Oceanography</td>
<td>(3)</td>
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<td>BIOL A479</td>
<td>Physiological Plant Ecology</td>
<td>(3)</td>
</tr>
<tr>
<td>BIOL A480</td>
<td>Ecological and Conservation Genetics</td>
<td>(3)</td>
</tr>
<tr>
<td>BIOL A481</td>
<td>Marine Biology</td>
<td>(3)</td>
</tr>
<tr>
<td>BIOL A482</td>
<td>Spatial Ecology</td>
<td>(3)</td>
</tr>
<tr>
<td>BIOL A483</td>
<td>Exploration Ecology</td>
<td>(2)</td>
</tr>
<tr>
<td>BIOL A486</td>
<td>Evolutionary Ecology</td>
<td>(3)</td>
</tr>
<tr>
<td>BIOL A489</td>
<td>Population Genetics and Evolutionary Processes</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td><strong>Diversity and Organismal Biology</strong></td>
<td></td>
</tr>
<tr>
<td>BIOL A442</td>
<td>Experiential Learning: Animal Behavior</td>
<td>(3)</td>
</tr>
<tr>
<td>BIOL A453</td>
<td>Experiential Learning: Microbial Ecology</td>
<td>(4)</td>
</tr>
<tr>
<td>BIOL A484</td>
<td>Experiential Learning: Exploration Ecology Field Study</td>
<td>(4)</td>
</tr>
<tr>
<td></td>
<td><strong>Physiology</strong></td>
<td></td>
</tr>
<tr>
<td>BIOL A310</td>
<td>Principles of Animal Physiology</td>
<td>(3)</td>
</tr>
<tr>
<td>BIOL A316</td>
<td>Principles of Plant Physiology</td>
<td>(3)</td>
</tr>
<tr>
<td>BIOL A412</td>
<td>Behavioral Endocrinology</td>
<td>(3)</td>
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<td>BIOL A413</td>
<td>Neurophysiology</td>
<td>(3)</td>
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<tr>
<td>BIOL A414</td>
<td>Chronobiology</td>
<td>(3)</td>
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</table>
BIOL A415 Comparative Animal Physiology (3)
BIOL A416 Exercise Physiology (3)
BIOL A418 Fish Physiology (3)
BIOL A479 Physiological Plant Ecology (3)
BIOL A487 Comparative Anatomy of Vertebrates (3)

**Additional Upper Division Electives**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<td>BIOL A456</td>
<td>Nonlinear Dynamics and Chaos (3)</td>
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<td>BIOL A490</td>
<td>Selected Lecture Topics in Biology (1-3)</td>
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</tr>
<tr>
<td>BIOL A495</td>
<td>Instructional Practicum: Laboratory (1)</td>
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</tr>
<tr>
<td>BIOL A497</td>
<td>Independent Study in Biology (1-12)</td>
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</tr>
<tr>
<td>BIOL A498</td>
<td>Individual Research (1-6)</td>
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<td>BIOL A499</td>
<td>Senior Thesis (3)</td>
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<tr>
<td>BIOL A490L</td>
<td>Selected Laboratory Topics in Biology (1-3)</td>
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<tr>
<td>CHEM A441</td>
<td>Principles of Biochemistry I (3)</td>
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<tr>
<td>CHEM A442</td>
<td>Principles of Biochemistry II (3)</td>
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<td>CHEM A443</td>
<td>Biochemistry Laboratory (2)</td>
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<table>
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<tr>
<td>BIOL A406</td>
<td>Experiential Learning: Biostatistics (4)</td>
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</tr>
<tr>
<td>BIOL A408</td>
<td>Experiential Learning: Scanning Electron Microscopy (SEM)</td>
<td></td>
</tr>
</tbody>
</table>

*Several courses are listed under more than one area. Each course can only count toward the credit requirement in one area.
**BIOL A498 credits may not be counted toward the Experiential Learning minimum requirement
**BIOL A490L credits may be counted toward the Experiential Learning minimum requirement

5. A total of 122-125 credits is required for the degree, 42 credits of which must be upper division.

**Bachelor of Science, Natural Sciences**

The Department of Biological Sciences also oversees the Bachelor of Science in Natural Sciences. This curriculum emphasizes the interrelationships among the sciences. A program of study in the Natural Sciences requires that students select an option within the degree, and complete all courses required within the option, as well as sufficient science elective courses to meet minimum unit requirements for graduation. Students accepted into this flexible degree program select one of three options: the General Sciences Option is designed for students who are interested in understanding the interrelationships among various scientific fields, or in teaching science at the secondary level. The Pre-Health Professions Option is designed to meet the admission requirements of specific professional schools in medicine, dentistry, and veterinary medicine. The Environmental Sciences Option is designed to prepare students for graduate school or for employment in the private or public sector.

For a complete program description see the Natural Sciences section of this chapter.

**Minor, Biological Sciences**

Students majoring in another subject who wish to minor in Biological Sciences must complete the following requirements. A total of 28 credits is required for the minor, 12 of which must be upper division.

<table>
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<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>BIOL A108</td>
<td>Principles and Methods in Biology</td>
<td>6</td>
</tr>
<tr>
<td>BIOL A242</td>
<td>Fundamentals of Cell Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL A252</td>
<td>Principles of Genetics</td>
<td>3</td>
</tr>
<tr>
<td>BIOL A288</td>
<td>Principles of Evolution</td>
<td>3</td>
</tr>
</tbody>
</table>

Upper division Biological Sciences electives 12

**FACULTY**

*Eric Bortz, Assistant Professor, ebortz@uaa.alaska.edu*
*C. Loren Buck, Professor, clbuck@uaa.alaska.edu*
Biology is the science concerned with the study of living organisms. It encompasses a vast range of biological disciplines, from the study of microbes and molecular biology to the study of plants, animals and the environment. The undergraduate program in the Biological Sciences includes courses that provide students with a broad understanding of both traditional and modern biological sciences. These courses are suitable as preparation for professional degrees, teaching, or careers in government or industry. Both the Bachelor of Arts and the Bachelor of Science degrees are available for undergraduates. A Master of Science degree program in Biological Sciences as well as a joint UAA-UAF Doctor of Science degree program is available for students already holding a baccalaureate degree.

A program of study in the biological sciences requires completion of a basic science core curriculum in the chemical, physical and mathematical sciences as well as required and elective courses in the biological sciences. A degree in the biological sciences prepares students who wish to pursue careers in medicine, dentistry, and veterinary medicine, ecology and the environmental sciences in the private or public sector, or who wish to attend graduate school. The cell-molecular area focuses on pre-professional sciences for students wishing to pursue careers in medicine, dentistry, and veterinary medicine, ecology and the environmental sciences in the private or public sector, or who wish to attend graduate school. The organismal-ecology-evolution area is a more diversified curriculum emphasizing environmental, organismal, evolutionary, and general biological sciences preparatory for graduate school or for employment in the private or public sector.

Students are strongly encouraged to consult with their academic advisors within the Department of Biological Sciences to determine which electives best suit their programmatic needs and career requirements.

The Bachelor of Arts and the Bachelor of Science degree programs require a total of 120-125 credits for graduation and can be completed in four years by students who have had adequate high school preparation in math and sciences. Refer to the beginning of this chapter for recommended high school courses.

**Program Student Learning Outcomes**

It is expected that graduates of the Biological Sciences program will have the ability to:

1. Demonstrate an understanding of.
2. Design and conduct projects that include fieldwork, laboratory analysis, and interpretation in the discipline.
3. Apply the process of science and construct knowledge through observations, experimentation, quantitative reasoning and hypothesis testing.
4. Read, analyze and synthesize primary literature, and communicate scientific concepts and data in written and oral form.

**Community Service Courses**

The department offers a wide range of community service courses as a service to the people in the Anchorage area and extended campuses who wish to become more knowledgeable about the science of biology and how it relates to them. Unless noted otherwise in the course description, community service courses do not satisfy either core requirements or elective credit toward any degree programs in the biological sciences. All are offered as demand warrants.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>BIOL A074</td>
<td>Field Natural History</td>
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<td>BIOL A075</td>
<td>Local Flora</td>
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<tr>
<td>BIOL A100</td>
<td>Human Biology</td>
</tr>
<tr>
<td>BIOL A124</td>
<td>Biota of Alaska: Selected Topics</td>
</tr>
<tr>
<td>BIOL A126</td>
<td>Birds in Field and Laboratory</td>
</tr>
</tbody>
</table>
Departmental Honors in Biology

Undergraduate Biological Science majors may be recognized for exceptional performance by earning departmental honors in Biology. In order to receive honors in biology, a student must meet each of the following requirements:

1. Meet the requirements for Graduation with Honors as listed in Chapter 7.
2. Meet the requirements for a BA/BS degree in Biological Sciences.
3. Earn a grade point average of 3.50 or above in the major requirements.
4. During the senior year of their academic program, the student must gain faculty approval for and complete, with a grade of B or better, a senior thesis research project, with enrollment in BIOL A499 Senior Thesis. Biological Science faculty members must approve the project proposal and final written report.

Bachelor of Arts, Biological Sciences

Admission Requirements

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7.

Academic Progress

To graduate with a BA in Biological Sciences, the student must complete all courses covered under Major Requirements for a BA in Biological Sciences with a grade of C or better. All prerequisites for Biology courses must be completed with a grade of C or better. Students who audit, or are unable to earn a grade of C or better in, a lower-division (100 or 200 level) course in the Department of Biological Sciences (BIOL) may repeat the course two additional times on a space available basis. Students who audit, or are unable to earn a grade of C or better in, an upper-division (300 or 400 level) course in the Department of Biological Sciences may repeat the course one additional time on a space available basis. Students repeating a course in the Department of Biological Sciences are required to complete all components of that course during the semester in which the course is retaken. When repeating a course with a linked lecture and laboratory component, both components must be repeated. Students enrolled in a laboratory or Experiential Learning course in the Department of Biological Sciences must attend the lab or course the first week of class or they may be administratively dropped.

Graduation Requirements

Students must complete the following graduation requirements:

A. General University Requirements

Complete the General University Requirements for All Baccalaureate Degrees located at the beginning of this chapter.

B. General Education Requirements

Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

C. College of Arts and Sciences Requirements

Complete the College of Arts and Sciences Requirements listed at the beginning of the CAS section.

D. Major Requirements

1. Complete these required core courses (25-34.75 credits):
   
   BIOL A115 Fundamentals of Biology I 4
   BIOL A116 Fundamentals of Biology II 4
   BIOL A198 Principles and Methods in Biology 3
   BIOL A242 Fundamentals of Cell Biology 4
   BIOL A252 Principles of Genetics 4
   BIOL A271 Principles of Ecology 4
   BIOL A285 Principles of Evolution 4
   BIOL A243 Experiential Learning: Genetics and Cell Biology 4
   or
BIOL A273 Experiential Learning: Ecology and Evolution 4

BIOL A492 Undergraduate Seminar 1

CHEM A105 General Chemistry I 3

CHEM A105L General Chemistry I Laboratory 1

CHEM A106 General Chemistry II 3

CHEM A106L General Chemistry II Laboratory 1

STAT A252 Elementary Statistics (3) 3-4

or

STAT A253 Applied Statistics for the Sciences (4) or

STAT A207 Probability and Statistics (4)

2. Complete 15-17 credits of upper division program electives from the following four areas.

a. At least 3 credits must come from each of 4 of the 5 areas.*

b. A minimum of 6 credits must be Experiential Learning from 2 areas**  18-19

Genetics, Cellular and Molecular Biology

BIOL A340 General Microbiology (3)

BIOL A341 Microbial Biology (3)

BIOL A451 Applied Microbiology (3)

BIOL A452 Human Genome (3)

BIOL A453 Advanced Human Genome (3)

BIOL A461 Molecular Biology (3)

BIOL A462 Virology (3)

BIOL A463 Molecular Biology of Cancer (3)

BIOL A464 Metals in Biology (3)

BIOL A465 Molecular Biology Laboratory (3)

BIOL

CHEM A471 Immunochemistry Immunology (4)

BIOL A342 Experiential Learning: Microbial Biology (4)

BIOL A403 Experiential Learning: Microscopical Tissue Techniques (6)

BIOL A454 Experiential Learning: Microbial Biotechnology (4)

BIOL A455 Experiential Learning: Bioinformatics (4)

BIOL A466 Experiential Learning: Molecular Biology (4)

BIOL A467 Microtechnique (4)

BIOL A488 Experiential Learning: Developmental Biology (4)

Ecology and Evolution

BIOL A365 Astrobiology (3)

BIOL A430 Marine Mammals and Seabirds (3)

BIOL A441 Animal Behavior (3)

BIOL A445 Plant-Herbivore Ecology (4)

BIOL A450 Microbial Ecology (3)

BIOL A472A473 Biogeography (3)

BIOL A473 Conservation Biology (3)

BIOL A474 Ecotoxicology (3)

BIOL A475 Fish Ecology (2)

BIOL A476 Wildlife Population Dynamics and Management (3)
BIOL A477  Tundra and Taiga Ecosystems (3)
BIOL A478  Biological Oceanography (3)
BIOL A479  Physiological Plant Ecology (3)
BIOL A480  Ecological and Conservation Genetics (3)
BIOL A481  Marine Biology (3)
BIOL A482  Spatial Ecology (3)
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BIOL A486  Evolutionary Ecology (3)
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BIOL A441  Animal Behavior (4)
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BIOL A450  Microbial Ecology (3)
BIOL A477  Tundra and Taiga Ecosystems (2)
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BIOL A442  Experiential Learning: Animal Behavior (3)
BIOL A453  Experiential Learning: Microbial Ecology (4)
BIOL A484  Experiential Learning: Exploration Ecology Field Study (4)

Diversity and Organismal Biology
BIOL A320  Vertebrate Biology (3)
BIOL A330  Plant Biology (2)
BIOL A340  Microbial Biology (3)
BIOL A423  Ichthyology (3)
BIOL A427  Marine Invertebrate Biology (3)
BIOL A430  Marine Mammals and Seabirds (3)
BIOL A331  Plant Diversity and Evolution (3)
BIOL A332  Biology of Vascular Plants (4)
BIOL A421  Biology of Vascular Plants (4)
BIOL A426  General Microbiology (5)
BIOL A423  Ichthyology (4)
BIOL A425  Mammalogy (3)
BIOL A476  Ornithology (4)
BIOL A427  Invertebrate Zoology (4)
BIOL A430  Marine Mammal Biology (4)

Physiology
BIOL A310  Principles of Animal Physiology (43)
BIOL A316  Introduction to Plant Physiology (3)
BIOL A412  Behavioral Endocrinology (3)
BIOL A413  Neurophysiology (3)
BIOL A414  Chronobiology (3)
BIOL A415  Comparative Animal Physiology (3)
BIOL A416  Exercise Physiology (3)
BIOL A418  Fish Physiology (3)
BIOL A479  Physiological Plant Ecology (3)
BIOL A487  Comparative Anatomy of Vertebrates (3)

**Additional Upper Division Electives**

1. ASTR/
   BIOL A365  Astrobiology (3)
2. BIOL/CHEM/PHYS A456  Nonlinear Dynamics and Chaos (3)
3. BIOL A490  Selected Lecture Topics in Biology (1-3)
4. BIOL A490L Selected Laboratory Topics in Biology (1-3)
5. BIOL A495  Instructional Practicum: Laboratory (1)
6. BIOL A497  Independent Study in Biology (1-12)
7. BIOL A498  Individual Research (1-6)
8. BIOL A499  Senior Thesis (3)
9. BIOL A490L Selected Laboratory Topics in Biology (1-3)
10. BIOL A406  Experiential Learning: Biostatistics (4)
11. BIOL A408  Experiential Learning: Scanning Electron Microscopy (SEM) (6)

*Several courses are listed under more than one area. Each course can only count toward the credit requirement in one area.
**BIOL A498 credits may not be counted toward the Experiential Learning minimum requirement
***BIOL A490L credits may be counted toward the Experiential Learning minimum requirement

3. The following may be taken for upper division elective credit in addition to the 15-17 credits required as stated in 2 above:

1. ASTR/
   BIOL A365  Astrobiology (3)
2. BIOL/CHEM/PHYS A456  Nonlinear Dynamics and Chaos (3)
3. BIOL A490  Selected Lecture Topics in Biology (1-3)
4. BIOL A490L Selected Laboratory Topics in Biology (1-3)
5. BIOL A495  Instructional Practicum: Laboratory (1)
6. BIOL A497  Independent Study in Biology (1-12)
7. BIOL A498  Individual Research (1-6)
8. BIOL A499  Senior Thesis (3)

4. It is recommended that students complete 8 credits from the following:

   8
   1. GEOL A111  Physical Geology (4)
   2. GEOL A221  Historical Geology (4)
   3. PHYS A123  Basic Physics I (3)
      or
   4. PHYS A123L Basic Physics I Laboratory (1)
   5. PHYS A124  Basic Physics II (3)

   For more information, see the university catalog for the specific requirements.
and

PHYS A124L  Basic Physics II Laboratory (1)

or

PHYS A211  General Physics I (3)

and

PHYS A211L  General Physics I Laboratory (1)

PHYS A212  General Physics II (3)

and

PHYS A212L  General Physics II Laboratory (1)

A total of 124 credits is required for the degree, 42 credits of which must be upper division.

**Bachelor of Science, Biological Sciences**

The Bachelor of Science degree includes a single core program of coursework with electives selected from 4 sub-disciplines within the biological sciences, with two areas of study. Completing courses from the cellular and molecular biology area prepares students for professional careers in areas such as medicine, dentistry, and veterinary science. Completing courses from the organismal, ecology, and evolutionary area prepares students for careers in environmental, organismal, and evolutionary biology. A wide selection of electives is available to all students, including courses offered under BIOL A490, which is a selected topics course. It is imperative that students consult their academic advisors within the Department of Biological Sciences to determine which electives are most appropriate to their career interests. Some of these elective courses are offered periodically, depending on demand. Refer to course descriptions to identify these courses.

**Admission Requirements**

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7.

**Academic Progress**

To graduate with a BS in Biological Sciences, the student must complete all courses covered under Major Requirements for a BS in Biological Sciences with a grade of C or better. All prerequisites for Biology courses must be completed with a grade of C or better. Students who audit, or are unable to earn a grade of C or better in, a lower-division (100 or 200 level) course in the Department of Biological Sciences (BIOL) may repeat the course two additional times on a space available basis. Students who audit, or are unable to earn a grade of C or better in, an upper-division (300 or 400 level) course in the Department of Biological Sciences may repeat the course one additional time on a space available basis. Students repeating a course in the Department of Biological Sciences are required to complete all components of that course during the semester in which the course is retaken. When repeating a course with a linked lecture and laboratory component, both components must be repeated. Students enrolled in a laboratory or Experiential Learning course in the Department of Biological Sciences must attend the lab or course the first week of class or they may be administratively dropped.

**Graduation Requirements**

Students must complete the following graduation requirements:

**A. General University Requirements**

Complete the General University Requirements for All Baccalaureate Degrees located at the beginning of this chapter.

**B. General Education Requirements**

Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

**C. College of Arts and Sciences Requirements**

Complete the College of Arts and Sciences Requirements listed at the beginning of the CAS section.

**D. Major Requirements**

1. Some major requirements may also be used to satisfy the College of Arts and Sciences BS requirements.
2. Complete these required support courses (36 credits):
CHEM A105  General Chemistry I  3
CHEM A105L General Chemistry I Laboratory  1
CHEM A106  General Chemistry II  3
CHEM A106L General Chemistry II Laboratory  1
CHEM A321  Organic Chemistry I  3
CHEM A322  Organic Chemistry II  3
CHEM A323L  Organic Chemistry Laboratory 2
MATH A200  Calculus I  4
MATH A201  Calculus II  4
PHYS A123  Basic Physics I (3)  8
PHYS A123L Basic Physics I Laboratory (1)
and
PHYS A124  Basic Physics II (3)  4
PHYS A124L Basic Physics II Laboratory (1)
or
PHYS A211  General Physics I (3)  4
PHYS A211L General Physics I Laboratory (1)  4
and
PHYS A212  General Physics II (3)  4
PHYS A212L General Physics II Laboratory (1)
STAT A253  Applied Statistics for the Sciences (4)  4
or
STAT A307  Probability and Statistics (4)  4
STAT A307S Intermediate Statistics for the Sciences*  3
or
3 upper division biological sciences credits
*It is recommended that STAT A307 be taken. Students may substitute STAT A307 with 3 upper division Biological Sciences credits.

3. Complete Biological Sciences core courses (32-3322 credits):

BIOL A115  Fundamentals of Biology I with  4
BIOL A116  Fundamentals of Biology II  4
BIOL A108  Principles and Methods in Biology  6
BIOL A242  Fundamentals of Cell Biology  4
BIOL A252  Principles of Genetics  4
BIOL A271  Principles of Ecology  4
BIOL A288 Principles of Evolution  3

BIOL A243 Experiential Learning: Genetics and Cell Biology  4
or
BIOL A273 Experiential Learning: Ecology and Evolution  4

BIOL A216 Principles of Physiology (4)  3-4
or
BIOL A216 Introduction to Plant Physiology (3)
BIOL A340 General Microbiology  5
BIOL A492 Undergraduate Seminar  1
4. Complete at least 11-1224 credits of upper division program

- Electives from the following areas:
  
  a. A minimum of 3 credits must come from each of 4 of the five 5 areas*.

  4. b. A minimum of 6 credits must be Experiential Learning from 2 areas**.

- Recommended electives in cellular and molecular biology:

  **Genetics, Cellular and Molecular Biology**
  - BIOL A340 Microbial Biology (3)
  - BIOL A451 Microbial Biotechnology (3)
  - BIOL A452 Human Genome (3)
  - BIOL A461 Molecular Biology (3)
  - BIOL A462 Virology (3)
  - BIOL A463 Molecular Biology of Cancer (3)
  - BIOL A464 Metals in Biology (3)
  - BIOL A471 Immunology (3)
  - BIOL A342 Experiential Learning: Microbial Biology (4)
  - BIOL A403 Experiential Learning: Microscopical Tissue Techniques (6)
  - BIOL A454 Experiential Learning: Microbial Biotechnology (4)
  - BIOL A455 Experiential Learning: Bioinformatics (4)
  - BIOL A465 Experiential Learning: Molecular Biology (4)
  - BIOL A488 Experiential Learning: Developmental Biology (4)

  **Ecology and Evolution**
  - BIOL A365 Astrobiology (3)
  - BIOL A430 Marine Mammals and Seabirds (3)
  - BIOL A441 Animal Behavior (3)
  - BIOL A445 Plant-Herbivore Ecology (4)
  - BIOL A450 Microbial Ecology (3)
  - BIOL A472 Biogeography (3)
  - BIOL A473 Conservation Biology (3)
  - BIOL A474 Ecotoxicology (3)
  - BIOL A475 Fish Ecology (2)
  - BIOL A476 Wildlife Population Dynamics and Management (3)
  - BIOL A477 Tundra and Taiga Ecosystems (3)
  - BIOL A478 Biological Oceanography (3)
  - BIOL A479 Physiological Plant Ecology (3)
  - BIOL A480 Ecological and Conservation Genetics (3)
  - BIOL A481 Marine Biology (3)
  - BIOL A482 Spatial Ecology (3)
  - BIOL A483 Exploration Ecology (3)
  - BIOL A486 Evolutionary Ecology (3)
  - BIOL A489 Population Genetics and Evolutionary Processes (3)

  * BIOL A442 Experiential Learning: Animal Behavior (2)
  - BIOL A453 Experiential Learning: Microbial Ecology (4)
  - BIOL A484 Experiential Learning: Exploration Ecology Field Study (4)

- Diversity and Organismal Biology
BIOL A320 Vertebrate Biology (3)  
BIOL A330 Plant Biology (3)  
BIOL A340 Microbial Biology (3)  
BIOL A423 Ichthyology (3)  
BIOL A427 Marine Invertebrate Biology (2)  
BIOL A430 Marine Mammals and Seabirds (2)  
BIOL A431 Plant Diversity and Evolution (2)  
BIOL A487 Comparative Anatomy of Vertebrates (3)  
BIOL A321 Experiential Learning: Vertebrate Biology (2)  
BIOL A332 Experiential Learning: Plant Biology (2)  
BIOL A342 Experiential Learning: Microbial Biology (4)  

**Physiology**  
BIOL A310 Principles of Animal Physiology (3)  
BIOL A316 Principles of Plant Physiology (3)  
BIOL A412 Behavioral Endocrinology (3)  
BIOL A413 Neurophysiology (3)  
BIOL A414 Chronobiology (3)  
BIOL A415 Comparative Animal Physiology (3)  
BIOL A416 Exercise Physiology (3)  
BIOL A418 Fish Physiology (3)  
BIOL A479 Physiological Plant Ecology (3)  
BIOL A487 Comparative Anatomy of Vertebrates (3)  

**Additional Upper Division Electives**  
BIOL A456 Nonlinear Dynamics and Chaos (3)  
BIOL A490 Selected Lecture Topics in Biology (1-3)  
BIOL A495 Instructional Practicum: Laboratory (1)  
BIOL A497 Independent Study in Biology (1-12)  
BIOL A498 Individual Research (1-6)  
BIOL A499 Senior Thesis (3)  
BIOL A490L Selected Laboratory Topics in Biology (1-3)  
CHEM A441 Principles of Biochemistry I (3)  
CHEM A442 Principles of Biochemistry II (3)  
CHEM A443 Biochemistry Laboratory (2)  
BIOL A406 Experiential Learning: Biostatistics (4)  
BIOL A408 Experiential Learning: Scanning Electron Microscopy (SEM) (6)  

*Several courses are listed under more than one area. Each course can only count toward the credit requirement in one area.*  
**BIOL A498 credits may not be counted toward the Experiential Learning minimum requirement**  
**BIOL A490L credits may be counted toward the Experiential Learning minimum requirement**  

**CHEM A441, Principles of Biochemistry I (3)**  
**CHEM A442, Principles of Biochemistry II (3)**  
**CHEM A443, Biochemistry Laboratory (2)**
b. Recommended elective courses in organismal, ecology and evolutionary biology:

**Botany**
- BIOL A316 Introduction to Plant Physiology (3)
- BIOL A331 Systematic Botany (4)
- BIOL A333 Biology of Non-Vascular Plants (4)
- BIOL A334 Biology of Vascular Plants (4)
- BIOL A479 Physiological Plant Ecology (3)

**Zoology**
- BIOL A415 Comparative Animal Physiology (3)
- BIOL A422 Ichthyology (4)
- BIOL A425 Mammalogy (3)
- BIOL A426 Ornithology (4)
- BIOL A427 Invertebrate Zoology (4)
- BIOL A487 Comparative Anatomy of Vertebrates (4)

**Ecology-Systems**
- BIOL A309 Biogeography (3)
- BIOL A373 Conservation Biology (3)
- BIOL A378 Marine Biology (3)
- BIOL A430 Marine Mammal Biology (4)
- BIOL A441 Animal Behavior (4)
- BIOL A415 Plant-Herbivore Ecology (4)
- BIOL A450 Microbial Ecology (3)
- BIOL A477 Tundra and Taiga Ecosystems (3)
- BIOL A478 Biological Oceanography (4)
5. A total of 122-125 credits is required for the degree, 42 credits of which must be upper division.

**Bachelor of Science, Natural Sciences**

The Department of Biological Sciences also oversees the Bachelor of Science in Natural Sciences. This curriculum emphasizes the interrelationships among the sciences. A program of study in the Natural Sciences requires that students select an option within the degree, and complete all courses required within the option, as well as sufficient science elective courses to meet minimum unit requirements for graduation. Students accepted into this flexible degree program select one of three options: the General Sciences Option is designed for students who are interested in understanding the interrelationships among various scientific fields, or in teaching science at the secondary level. The Pre-Health Professions Option is designed to meet the admission requirements of specific professional schools in medicine, dentistry, and veterinary medicine. The Environmental Sciences Option is designed to prepare students for graduate school or for employment in the private or public sector.

For a complete program description see the Natural Sciences section of this chapter.
Minor, Biological Sciences

Students majoring in another subject who wish to minor in Biological Sciences must complete the following requirements. A total of 28 credits is required for the minor, 12 of which must be upper division.

- **Biol A115**  Fundamentals of Biology I  4
- **Biol A116**  Fundamentals of Biology II  4
- **Biol A108**  Principles and Methods in Biology  6
- **Biol A242**  Fundamentals of Cell Biology  4
- **Biol A252**  Principles of Genetics  4
- **Biol A288**  Principles of Evolution  3
- Upper division Biological Sciences electives  12

**FACULTY**

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- Frank von Hippel, Professor, favonhippel@uaa.alaska.edu
8Jan14

To: CAS Course and Curriculum Committee
    Undergraduate Academic Board

From: Khrys Duddleston, Chair
    Department of Biological Sciences Curriculum Committee

RE: Changes to the B.S. in Natural Sciences Degree

The Department of Biological Sciences proposes the following changes to the B.S. in Natural Sciences Degree:

1. Changes to the core course requirements
2. Updating upper division course offerings

These changes are being made to update the course requirements and course lists in light of changes the Dept. is making to the B.S. in Biological Sciences curriculum.

Please contact me if you have any additional questions.
## Program/Prefix Action Request

**University of Alaska Anchorage**  
Proposal to Initiate, Add, Change, or Delete a Program of Study or Prefix

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<thead>
<tr>
<th>1a. School or College</th>
<th>1b. Department</th>
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<td>Biological Sciences</td>
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<tbody>
<tr>
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<tr>
<td>Bachelor of Science or CHOOSE ONE</td>
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This program is a Gainful Employment Program: □ Yes or □ No

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<tr>
<td>Initiator Name (typed): Khrys Duddleston</td>
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<tr>
<td>Initiator Signed Initials: _________</td>
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<td>Date:________________</td>
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<th>6b. Coordination Email submitted to Faculty Listserv (<a href="mailto:uaa-faculty@lists.uaa.alaska.edu">uaa-faculty@lists.uaa.alaska.edu</a>)</th>
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<th>6c. Coordination with Library Liaison</th>
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| 7. Title and Program Description - Please attach the following:                          |
| ☑ Cover Memo                                                                             |
| ☑ Catalog Copy in Word using the track changes function                                 |

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<th>8. Justification for Action</th>
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<tr>
<td>The purpose for making these changes is to improve the time to completion of the degree and align our curriculum with the core concepts and competencies outlined in Vision and Change in Undergraduate Biology Education: A Call to Action (2013), a report of a national conference organized by the American Association for the Advancement of Science with support from the National Science Foundation.</td>
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<th>Initiator (faculty only)</th>
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<td>Khrys Duddleston</td>
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The undergraduate program in Natural Sciences is founded on a curriculum that emphasizes the interrelationships among the sciences. A program of study in the Natural Sciences requires that students select an option within the degree and complete all courses required within the option, as well as sufficient science elective courses to meet minimum unit requirements for graduation.

Students accepted into this flexible degree program select one of three options: the General Sciences Option is designed for students who are interested in understanding the interrelationships among various scientific fields, or in teaching science at the secondary level. The Pre-Health Professions Option is designed to meet the admission requirements of specific professional schools in medicine, dentistry, and veterinary medicine. The Environmental Sciences Option is designed to prepare students for graduate school or for employment in the private or public sector.

The Natural Sciences program is administered by the Department of Biological Sciences. Upon acceptance to the major the student will be assigned an academic advisor from the Department of Biological Sciences in accordance with the student’s declared option, and students are strongly encouraged to consult with their academic advisors to determine which electives best suit their career requirements.

**Bachelor of Science, Natural Sciences**

**Admission Requirements**

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7. Declare the major (see Major Requirements) and select one of three options: General Sciences, Pre-Health Professions or Environmental Sciences.

**Program Student Learning Outcomes**

It is expected that graduates of the Natural Sciences program will:

1. Demonstrate their knowledge of central conceptual models used in the major thematic areas of natural sciences.
2. Identify problems, devise solutions and communicate solutions effectively.

**Academic Progress**

To graduate with a BS in Natural Sciences, the student must complete all courses covered under Major Requirements for a BS in Natural Sciences with a grade of C or better. All prerequisites for courses used to meet the Natural Sciences degree requirements must be completed with a grade of C or better. Students who audit a course intended to meet the Natural Sciences degree requirements or who are unable to earn a grade of C or better in the course may repeat the course. Students who audit, or are unable to earn a grade of C or better in, a lower-division (100 or 200 level) course in the Department of Biological Sciences (BIOL) may repeat the course two additional times on a space available basis. Students who audit, or are unable to earn a grade of C or better in, an upper-division (300 or 400 level) course in the Department of Biological Sciences may repeat the course one additional time on a space available basis. Students repeating a course in the Department of Biological Sciences are required to complete all components of that course during the semester in which the course is retaken. When repeating a course with a lecture and laboratory component, both components must be repeated. Students enrolled in a laboratory or Experiential Learning course in the Department of Biological Sciences must attend the lab or course the first week of class or they may be administratively dropped.

**Graduation Requirements**

Students must complete the following graduation requirements:

**A. General University Requirements**

Complete the General University Requirements for All Baccalaureate Degrees located at the beginning of this chapter.
B. General Education Requirements

Complete the General Education Requirements for Baccalaureate Degrees (GERs) listed at the beginning of this chapter.

C. College of Arts and Sciences Requirements

Complete the College of Arts and Sciences (CAS) Requirements listed at the beginning of the CAS section. It is recommended that MATH A200 or MATH A272, STAT A253 or STAT A307, and the computer programming requirements be completed in the first two years of study.

D. Major Requirements

1. To declare the Bachelor of Science in Natural Sciences as their major, students must meet with an advisor and then apply to be accepted into the major. To schedule your advising session, contact the Department of Biological Sciences. At the advising session students are required to:
   a. choose one of the three options and
   b. file a preliminary program of study with the Department of Biological Sciences.

2. It is strongly recommended that any changes to the preliminary program be reviewed by an advisor to ensure that the final program of study will meet all requirements for graduation.

3. Students must submit a final Program of Study-Natural Sciences Degree form signed by their advisor to both the Office of the Registrar and the Department of Biological Sciences during the semester prior to the semester in which they plan to graduate. All courses listed in the Program of Study-Natural Sciences Degree form must be approved by the formal advisor before submitting the form to the Office of the Registrar and the Department of Biological Sciences.

4. No more than 6 credits may come from courses designated as A495, A498 and A499 combined, with no more than 2 credits from A495.

5. No more than 4 credits may be A492, with no more than 2 from the same discipline.

6. Courses not listed as approved for the Natural Sciences degree may be considered by petition, which should be signed by an advisor.

7. A total of 120-124 credits is required for the degree, of which 42 credits must be upper division.

Note 1: It is suggested that the required science sequences for any option be completed in the first two years of study.

Note 2: Students are encouraged to pay careful attention to prerequisite requirements when designing their program of study.

Note 3: Some courses meet more than one of the requirements (GER, CAS, Major). Consult the beginning of this chapter for information about GERs and the beginning of the CAS section for information about CAS requirements.

Environmental Sciences Option (80 credits)

1. Complete the following required courses (28 credits):
   - BIOL A108 Principles and Methods in Biology 6
   - CHEM A105 General Chemistry I 3
   - CHEM A105L General Chemistry I Laboratory 1
   - CHEM A106 General Chemistry II 3
   - CHEM A106L General Chemistry II Laboratory 1
   - GEOL A111 Physical Geology 4
   - GEOL A221 Historical Geology 4
   - ENVI A211 Environmental Science: Systems and Processes 3
   - ENVI A212 Living on Earth: People and the Environment 3

2. Complete an additional 52 credits of degree electives from the approved course lists for the Environmental Sciences Option.
   a. A minimum of 32 credits must be upper division.
b. A minimum of 20 credits must come from the following Natural and Physical Sciences Course List for the Environmental Sciences Option:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ASTR/</td>
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<td>GEOL A179</td>
<td>Fundamentals of Oceanography Laboratory (1)</td>
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<td>CPLX A200</td>
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<td>BIOL A242</td>
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<td>BIOL A252</td>
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<td>BIOL A271</td>
<td>Principles of Ecology (3)</td>
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<td>BIOL A273</td>
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<td>BIOL A288</td>
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<tr>
<td>BIOL A340</td>
<td>Microbial Biology (3)</td>
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<td>BIOL A342</td>
<td>Experiential Learning: Microbial Biology (4)</td>
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<tr>
<td>BIOL A403</td>
<td>Experiential Learning: Microscopical Tissue Techniques (6)</td>
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<td>BIOL A406</td>
<td>Experiential Learning: Biostatistics (4)</td>
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<td>BIOL A408</td>
<td>Experiential Learning: Scanning Electron Microscopy (SEM) (6)</td>
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<td>BIOL A415</td>
<td>Comparative Animal Physiology (3)</td>
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<td>BIOL A418</td>
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<td>BIOL A423</td>
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<td>BIOL A427</td>
<td>Marine Invertebrate Biology (3)</td>
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<td>BIOL A430</td>
<td>Marine Mammals and Seabirds (3)</td>
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<td>BIOL A431</td>
<td>Plant Diversity and Evolution (3)</td>
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<td>BIOL A476</td>
<td>Wildlife Population Dynamics and Management (3)</td>
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<td>BIOL A477</td>
<td>Tundra and Taiga Ecosystems (3)</td>
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<td>Physiological Plant Ecology</td>
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<td>Ecological and Conservation Genetics</td>
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<td>BIOL A484</td>
<td>Experiential Learning: Exploration Ecology Field Study</td>
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<td>Comparative Anatomy of Vertebrates</td>
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<td>Population Genetics and Evolutionary Processes</td>
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<td>Physical Chemistry: A Biological Orientation</td>
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<td>GEOL A190</td>
<td>Introductory Topics in Geology</td>
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<td>Mineralogy</td>
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<td>GEOL A322</td>
<td>Igneous and Metamorphic Petrology</td>
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<td>GEOL A325</td>
<td>Geology of Ore Deposits</td>
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<td>Structural Geology</td>
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<td>Geomorphology</td>
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<td>GEOL A360</td>
<td>Geochemistry</td>
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GEOL A380 Anchorage Field Studies (3)
GEOL A381 Kenai Peninsula Field Studies (3)
GEOL A382 Geological Field Studies (3)
GEOL A450 Paleoclimatology and Global Change (3)
GEOL A452 Sedimentology and Stratigraphy (4)
GEOL A454 Glacial and Quaternary Geology (3)
GEOL A455 Permafrost (3)
GEOL A456 Geoarchaeology (3)
GEOL A460 Environmental Geochemistry (3)
GEOL A475 Environmental Geophysics (3)
GEOL A480 Geological Field Methods (3)
GEOL A481 Alaskan Field Investigations (3)
GEOL A482 Geological Field Investigations (3)
GEOL A490 Advanced Topics in Geology (1-4)
GEOL A492 Geology Seminar (1)
GEOL A495 Geology Internship (1-3)
GEOL A498 Student Research (1-3)
GEOL A499 Senior Thesis (3)
LSIS A201 Life on Earth (5)
LSIS A202 Concepts and Processes: Natural Sciences (5)

PHYS A123 Basic Physics I* (3)
PHYS A123L Basic Physics I Laboratory* (1)
PHYS A124 Basic Physics II* (3)
PHYS A124L Basic Physics II Laboratory* (1)
PHYS A211 General Physics I (3)
PHYS A211L General Physics I Laboratory* (1)
PHYS A212 General Physics II* (3)
PHYS A212L General Physics II Laboratory* (1)
PHYS A303 Modern Physics (3)

*Students cannot get credit for both PHYS 123/L and PHYS 211/L or PHYS 124/L and PHYS 212/L.

a. A minimum of 15 credits must come from the following Math and Computational Skills Course List for the Environmental Sciences Option: 15

CS A109 Computer Programming (Languages Vary) (3)c
or
CS A110 Java Programming (3)
or
CS A111 Visual Basic .NET Programming (3)
or
CSCE A201 Computer Programming I (4)
CSCE A202 Object-Oriented Programming (3)
CSCE A302 Object-Oriented Design Patterns (3)
CSCE A311 Data Structures and Algorithms (3)
CSCE A351 Automata, Algorithms and Complexity (3)
CSCE A360 Database Systems (3)
CSCE A385  Computer Graphics (3)
CSCE A411  Artificial Intelligence (3)
CSCE A412  Evolutionary Computing (3)
GEO A157  Analytical and Digital Cartography (3)
GEO A167  Remote Sensing and Image Analysis (4)
GEO A248  Digital Terrain Cartography (3)
GEO A257  Elements of Photogrammetry (3)
GEO A359  Geodesy and Map Projections (3)
GEO A459  Geodetic Geomatics (3)
GEO A467  Analytical and Digital Photogrammetry (3)
GIS A268  Elements of Geographic Information Systems (GIS) (4)
GIS A295  Internship in Geographic Information Systems I (3)
GIS A366  Spatial Information Analysis and Modeling (3)
GIS A367  GIS and Remote Sensing (3)
GIS A370  GIS and Remote Sensing for Natural Resources (3)
GIS A433  Coastal Mapping (3)
GIS A458  Design and Management of Spatial Information (3)
GIS A468  Integration of Geomatics Technologies (3)
GIS A495  Internship in Geographic Information Systems II (3)
MATH A200  Calculus I (4)
or
MATH A272  Applied Calculus (3)
MATH A201  Calculus II (4)
MATH A202  Calculus III (4)
MATH A215  Introduction to Mathematical Proofs (3)
MATH A231  Introduction to Discrete Mathematics (3)
MATH A302  Ordinary Differential Equations (3)
MATH A303  Introduction to Modern Algebra (3)
MATH A305  Introduction to Geometries (3)
MATH A306  Discrete Methods (3)
MATH A314  Linear Algebra (3)
MATH A321  Analysis of Several Variables (3)
MATH A324  Advanced Calculus (3)
MATH A371  Stochastic Processes (3)
MATH A407  Mathematical Statistics I (3)
MATH A408  Mathematical Statistics II (3)
MATH A410  Introduction to Complex Analysis (3)
MATH A422  Partial Differential Equations (3)
STAT A253  Applied Statistics for the Sciences (4)
or
STAT A307  Probability and Statistics (4)
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<td>Intermediate Statistics for the Sciences (3)</td>
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<tr>
<td>STAT A402</td>
<td>Scientific Sampling (3)</td>
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<td>STAT A403</td>
<td>Regression Analysis (3)</td>
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<tr>
<td>STAT A404</td>
<td>Analysis of Variance (3)</td>
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<td>STAT A405</td>
<td>Nonparametric Statistics (3)</td>
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<td>STAT A407</td>
<td>Time Series Analysis (3)</td>
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<td>STAT A408</td>
<td>Multivariate Statistics (3)</td>
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<tr>
<td>STAT A490</td>
<td>Selected Topics in Statistics (1-3)</td>
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d. A minimum of 9 credits must come from the following Social Sciences Course List for the Environmental Sciences Option:

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<tr>
<td>ANTH A101</td>
<td>Introduction to Anthropology (3)</td>
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<tr>
<td>ANTH A202</td>
<td>Cultural Anthropology (3)</td>
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<tr>
<td>ANTH A205</td>
<td>Biological Anthropology (3)</td>
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<tr>
<td>ANTH A335</td>
<td>Native North Americans (3)</td>
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<tr>
<td>ANTH A354</td>
<td>Culture and Ecology (3)</td>
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<tr>
<td>ANTH A415</td>
<td>Applied Anthropology (3)</td>
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<tr>
<td>ANTH A445</td>
<td>Evolution of Humans and Disease (3)</td>
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<tr>
<td>CEL A292</td>
<td>Introduction to Civic Engagement (3)</td>
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<tr>
<td>CEL A390</td>
<td>Selected Topics in Civic Engagement (1-3)</td>
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<tr>
<td>ECON A201</td>
<td>Principles of Macroeconomics (3)</td>
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<tr>
<td>ECON A202</td>
<td>Principles of Microeconomics (3)</td>
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<tr>
<td>ECON A210</td>
<td>Environmental Economics and Policy (3)</td>
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<tr>
<td>ECON A300</td>
<td>The Economy of Alaska (3)</td>
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<tr>
<td>ECON A321</td>
<td>Intermediate Microeconomics (3)</td>
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<tr>
<td>ECON A324</td>
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<tr>
<td>ECON A435</td>
<td>Natural Resource Economics (3)</td>
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<tr>
<td>ENVI/PHIL</td>
<td>Environmental Ethics (3)</td>
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<td>A303</td>
<td>Environmental Planning and Problem Solving (4)</td>
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<td>A470</td>
<td>Topics in Environment and Society (3)</td>
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<tr>
<td>A490</td>
<td>Local Places/Global Regions: An Introduction to Geography (3)</td>
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<tr>
<td>GEOG A101</td>
<td>People, Places and Ecosystems (3)</td>
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<td>LSSS A311</td>
<td>Introduction to Sociology (3)</td>
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<td>SOC A101</td>
<td>Environmental Sociology (3)</td>
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<td>SOC A404</td>
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Pre-Health Professions Option (80 credits)

1. Complete the following required courses (22 credits):

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<tr>
<td>BIOL A108</td>
<td>Principles and Methods in Biology 6</td>
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<tr>
<td>CHEM A105</td>
<td>General Chemistry I 3</td>
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<tr>
<td>CHEM A105L</td>
<td>General Chemistry I Laboratory 1</td>
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<tr>
<td>CHEM A106</td>
<td>General Chemistry II 3</td>
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<td>General Chemistry II Laboratory 1</td>
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<tr>
<td>PHYS A123</td>
<td>Basic Physics I 3</td>
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<td>PHYS A123L</td>
<td>Basic Physics I Laboratory 1</td>
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</table>
2. Complete an additional 58 credits of degree electives from the approved course lists for the Pre-Health Professions Option.
   a. A minimum of 32 credits must be upper division.
   b. A minimum of 24 credits must come from the following
      Natural Sciences Course List for the Pre-Health Professions Option: 24
      
      BIOL A111 Human Anatomy and Physiology I (4)
      BIOL A112 Human Anatomy and Physiology II (4)
      BIOL/CPLX A200 Introduction to Complexity (3)
      BIOL A240 Introductory Microbiology for Health Sciences (4)
      or
      BIOL A340 Microbial Biology (3)
      and
      BIOL A342 Experiential Learning: Microbial Biology (4)
      BIOL A242 Fundamentals of Cell Biology (3)
      BIOL A252 Principles of Genetics (3)
      BIOL A243 Experiential Learning: Genetics and Cell Biology (4)
      BIOL A310 Principles of Animal Physiology (3)
      BIOL A320 Vertebrate Biology (3)
      BIOL A321 Experiential Learning: Vertebrate Biology (2)
      BIOL A403 Experiential Learning: Microscopical Tissue Techniques (6)
      BIOL A408 Experiential Learning: Scanning Electron Microscopy (SEM) (6)
      BIOL A412 Behavioral Endocrinology (3)
      BIOL A413 Neurophysiology (3)
      BIOL A414 Chronobiology (3)
      BIOL A415 Comparative Animal Physiology (3)
      BIOL A416 Exercise Physiology (3)
      BIOL A451 Microbial Biotechnology (3)
      BIOL A452 Human Genome (3)
      BIOL A454 Experiential Learning: Microbial Biotechnology (4)
      BIOL A455 Experiential Learning: Bioinformatics (4)
      BIOL/CHEM/PHYS A456 Nonlinear Dynamics and Chaos (3)
      BIOL A461 Molecular Biology (3)
      BIOL A462 Virology (3)
      BIOL A463 Molecular Biology of Cancer (3)
      BIOL A464 Metals in Biology (3)
      BIOL A465 Experiential Learning: Molecular Biology (4)
      BIOL/CHEM A471 Immunology (3)
      BIOL A487 Comparative Anatomy of Vertebrates (4)
      BIOL A488 Experiential Learning: Developmental Biology (4)
A minimum of (15) credits must come from the following Social Sciences Course List for the Pre-Health Professions Option: 15

- ANTH A101 Introduction to Anthropology (3)
- ANTH A205 Biological Anthropology (3)
- ANTH A324 Psychological Anthropology (3)
- ANTH A365 Modern Human Biological Diversity (3)
- ANTH A445 Evolution of Humans and Disease (3)
- ANTH A455 Medical Anthropology (3)
- ANTH A457 Food and Nutrition: An Anthropological Perspective (3)
- ANTH A485 Human Osteology (4)
- ANTH A486 Applied Human Osteology (3)
- ANTH A490 Selected Topics in Anthropology (1-3)
- ECON A201 Principles of Macroeconomics (3)
- ECON A202 Principles of Microeconomics (3)
- HS A210 Introduction to Environmental Health (3)
- HS A220 Core Concepts in the Health Sciences (3)
- HS A230 Introduction to Global Health (3)
- HS A326 Introduction to Epidemiology (3)
- HS A492 Senior Seminar: Contemporary Health Policy (3)
- PHIL A302 Biomedical Ethics (3)
- PSY A111 General Psychology (3)
- PSY A143 Death and Dying (3)
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<td>Lifespan Development</td>
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<tr>
<td>PSY A260</td>
<td>Statistics for Psychology</td>
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<td>PSY A260L</td>
<td>Statistics for Psychology Lab</td>
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<tr>
<td>PSY A261</td>
<td>Research Methods in Psychology</td>
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<td>PSY A345</td>
<td>Abnormal Psychology</td>
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<td>PSY A355</td>
<td>Learning and Cognition</td>
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<td>PSY A366</td>
<td>Perception</td>
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<td>PSY A368</td>
<td>Personality</td>
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<td>PSY A370</td>
<td>Behavioral Neuroscience</td>
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<td>PSY A412</td>
<td>Foundations of Modern Psychology</td>
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<td>PSY A420</td>
<td>Conducting Research in Psychology</td>
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<td>PSY A425</td>
<td>Clinical Psychology</td>
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<td>PSY A428</td>
<td>Evolutionary Psychology</td>
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<td>PSY A450</td>
<td>Adult Development and Aging</td>
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<td>PSY A455</td>
<td>Mental Health Services in Alaska</td>
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<td>PSY A485</td>
<td>Health Psychology</td>
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<td>PSY A498</td>
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A minimum of 9 credits must come from the following Math and Computational Skills Course List for the Pre-Health Professions Option:

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<td>MATH A272</td>
<td>Applied Calculus</td>
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<tr>
<td>MATH A201</td>
<td>Calculus II</td>
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<tr>
<td>MATH A202</td>
<td>Calculus III</td>
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<tr>
<td>MATH A215</td>
<td>Introduction to Mathematical Proofs</td>
<td>3</td>
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<tr>
<td>MATH A231</td>
<td>Introduction to Discrete Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH A302</td>
<td>Ordinary Differential Equations</td>
<td>3</td>
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<tr>
<td>MATH A303</td>
<td>Introduction to Modern Algebra</td>
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<td>MATH A305</td>
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<td>Selected Topics in Applied Mathematics</td>
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STAT A308 Intermediate Statistics for the Sciences (3)
STAT A402 Scientific Sampling (3)
STAT A403 Regression Analysis (3)
STAT A404 Analysis of Variance (3)
STAT A405 Nonparametric Statistics (3)
STAT A407 Time Series Analysis (3)
STAT A408 Multivariate Statistics (3)
STAT A490 Selected Topics in Statistics (1-3)

**General Sciences Option (80 credits)**

1. Complete the following required courses (30 credits):
   - BIOL A108 Principles and Methods in Biology 6
   - CHEM A105 General Chemistry I 3
   - CHEM A105L General Chemistry I Laboratory 1
   - CHEM A106 General Chemistry II 3
   - CHEM A106L General Chemistry II Laboratory 1
   - GEOL A111 Physical Geology 4
   - GEOL A221 Historical Geology 4
   - PHYS A123 Basic Physics I (3) 8
   - PHYS A123L Basic Physics I Laboratory (1)
   - PHYS A124 Basic Physics II (3)
   - PHYS A124L Basic Physics II Laboratory (1)
   - or
   - PHYS A211 General Physics I (3)
   - PHYS A211L General Physics I Laboratory (1)
   - and
   - PHYS A212 General Physics II (3)
   - PHYS A212L General Physics II Laboratory (1)

2. Complete an additional 50 credits of degree electives. 50
   a. The credits may come from the following course lists:
   i. Environmental Sciences Option Course Lists (above)
   ii. Pre-Health Professions Course Lists (above)
   iii. General Sciences Additional Course List
      - ASTR A103 Solar System Astronomy (3)
      - ASTR A103L Solar System Astronomy Laboratory (1)
      - ASTR A104 Stars, Galaxies and Cosmology (3)
      - ASTR A104L Stars, Galaxies and Cosmology Laboratory (1)
      - PHYS A311 Intermediate Classical Mechanics (3)
      - PHYS/EE A314 Electromagnetics (3)
      - PHYS A320 Simulation of Physical Systems (3)
      - PHYS/EE A324 Electromagnetics II (3)
      - PHYS A403 Quantum Mechanics (3)
b. At least two of the following disciplines must be represented at the upper division level: Astronomy, Biology, Chemistry, Geology, Mathematics, Physics, Statistics.

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Liliya Vugmeyster, Associate Professor, lvgmeyster@uaa.alaska.edu.
The undergraduate program in Natural Sciences is founded on a curriculum that emphasizes the interrelationships among the sciences. A program of study in the Natural Sciences requires that students select an option within the degree and complete all courses required within the option, as well as sufficient science elective courses to meet minimum unit requirements for graduation.

Students accepted into this flexible degree program select one of three options: the General Sciences Option is designed for students who are interested in understanding the interrelationships among various scientific fields, or in teaching science at the secondary level. The Pre-Health Professions Option is designed to meet the admission requirements of specific professional schools in medicine, dentistry, and veterinary medicine. The Environmental Sciences Option is designed to prepare students for graduate school or for employment in the private or public sector.

The Natural Sciences program is administered by the Department of Biological Sciences. Upon acceptance to the major, the student will be assigned an academic advisor from the Department of Biological Sciences in accordance with the student’s declared option, and students are strongly encouraged to consult with their academic advisors to determine which electives best suit their career requirements.

Bachelor of Science, Natural Sciences

Admission Requirements

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7. Declare the major (see Major Requirements) and select one of three options: General Sciences, Pre-Health Professions or Environmental Sciences.

Program Student Learning Outcomes

It is expected that graduates of the Natural Sciences program will:

1. Demonstrate their knowledge of central conceptual models used in the major thematic areas of natural sciences.
2. Identify problems, devise solutions and communicate solutions effectively.

Academic Progress

To graduate with a BS in Natural Sciences, the student must complete all courses covered under Major Requirements for a BS in Natural Sciences with a grade of C or better. All prerequisites for courses used to meet the Natural Sciences degree requirements must be completed with a grade of C or better. Students who audit a course intended to meet the Natural Sciences degree requirements or who are unable to earn a grade of C or better in the course may repeat the course. Students who audit, or are unable to earn a grade of C or better in, a lower-division (100 or 200 level) course in the Department of Biological Sciences (BIOL) may repeat the course two additional times on a space available basis. Students who audit, or are unable to earn a grade of C or better in, an upper-division (300 or 400 level) course in the Department of Biological Sciences may repeat the course one additional time on a space available basis. Students repeating a course in the Department of Biological Sciences are required to complete all components of that course during the semester in which the course is retaken. When repeating a course with a lecture and laboratory component, both components must be repeated. Students enrolled in a laboratory or Experiential Learning course in the Department of Biological Sciences must attend the lab or course the first week of class or they may be administratively dropped.

Graduation Requirements

Students must complete the following graduation requirements:

A. General University Requirements

Complete the General University Requirements for All Baccalaureate Degrees located at the beginning of this chapter.
B. General Education Requirements

Complete the General Education Requirements for Baccalaureate Degrees (GERs) listed at the beginning of this chapter.

C. College of Arts and Sciences Requirements

Complete the College of Arts and Sciences (CAS) Requirements listed at the beginning of the CAS section. It is recommended that MATH A200 or MATH A272, STAT A253 or STAT A307, and the computer programming requirements be completed in the first two years of study.

D. Major Requirements

1. To declare the Bachelor of Science in Natural Sciences as their major, students must meet with an advisor and then apply to be accepted into the major. To schedule your advising session, contact the Department of Biological Sciences. At the advising session students are required to:
   a. choose one of the three options and
   b. file a preliminary program of study with the Department of Biological Sciences.
2. It is strongly recommended that any changes to the preliminary program be reviewed by an advisor to ensure that the final program of study will meet all requirements for graduation.
3. Students must submit a final Program of Study-Natural Sciences Degree form signed by their advisor to both the Office of the Registrar and the Department of Biological Sciences during the semester prior to the semester in which they plan to graduate. All courses listed in the Program of Study-Natural Sciences Degree form must be approved by the formal advisor before submitting the form to the Office of the Registrar and the Department of Biological Sciences.
4. No more than 6 credits may come from courses designated as A495, A498 and A499 combined, with no more than 2 credits from A495.
5. No more than 4 credits may be A492, with no more than 2 from the same discipline.
6. Courses not listed as approved for the Natural Sciences degree may be considered by petition, which should be signed by an advisor.
7. A total of 120-124 credits is required for the degree, of which 42 credits must be upper division.

Note 1: It is suggested that the required science sequences for any option be completed in the first two years of study.

Note 2: Students are encouraged to pay careful attention to prerequisite requirements when designing their program of study.

Note 3: Some courses meet more than one of the requirements (GER, CAS, Major). Consult the beginning of this chapter for information about GERs and the beginning of the CAS section for information about CAS requirements.

Environmental Sciences Option (80 credits)

1. Complete the following required courses (28-30 credits):
   - BIOL A115 Fundamentals of Biology I 4
   - BIOL A116 Fundamentals of Biology II 4
   - BIOL A108 Principles and Methods in Biology 6
   - CHEM A105 General Chemistry I 3
   - CHEM A105L General Chemistry I Laboratory 1
   - CHEM A106 General Chemistry II 3
   - CHEM A106L General Chemistry II Laboratory 1
   - GEOL A111 Physical Geology 4
   - GEOL A221 Historical Geology 4
   - ENVI A211 Environmental Science: Systems and Processes 3
   - ENVI A212 Living on Earth: People and the Environment 3

2. Complete an additional 50-52 credits of degree electives from the approved course lists for the Environmental Sciences Option.
   a. A minimum of 32 credits must be upper division.
   b. 
b. A minimum of 20 credits must come from the following Natural and Physical Sciences Course List for the Environmental Sciences Option:

- ASTR/
- BIOL A365 Astrobiology (3)
- BIOL/
- GEOL A178 Fundamentals of Oceanography (3)
- BIOL/
- GEOL A179 Fundamentals of Oceanography Laboratory (1)
- BIOL/
- CPLX A200 Introduction to Complexity (3)
- BIOL A242 Fundamentals of Cell Biology (4)
- BIOL A252 Principles of Genetics (3)
- BIOL A271 Principles of Ecology (3)
- BIOL A288 Principles of Evolution (3)
- BIOL A308 Principles of Evolution (3)
- BIOL A310 Principles of Animal Physiology (4)
- BIOL A316 Introduction to Principles of Plant Physiology (3)
- BIOL A331 Systematic Botany (4)
- BIOL A333 Biology of Non-Vascular Plants (4)
- BIOL A334 Biology of Vascular Plants (4)
- BIOL A340 General Microbiology/Microbial Biology (5)
- BIOL A342 Experiential Learning: Microbial Biology (4)
- BIOL A403 Experiential Learning: Microscopic Tissue Techniques (6)
- BIOL A406 Experiential Learning: Biostatistics (4)
- BIOL A408 Experiential Learning: Scanning Electron Microscopy (SEM) (6)
- BIOL A309 Biogeography (5)
- BIOL A373 Conservation Biology (3)
- BIOL A378 Marine Biology (3)
- BIOL A403 Microtechnique (4)
- BIOL A415 Comparative Animal Physiology (5)
- BIOL A418 Fish Physiology (3)
- BIOL A423 Ichthyology (4)
- BIOL A427 Ornithology (4)
- BIOL A427 Marine Invertebrate Zoology (4)
- BIOL A430 Marine Mammals and Seabirds (3)
- BIOL A431 Plant Diversity and Evolution (3)
- BIOL A441 Animal Behavior (4)
- BIOL A442 Experiential Learning: Animal Behavior (3)
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<td>BIOL A450</td>
<td>Microbial Ecology</td>
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<td>BIOL A451</td>
<td>Applied Microbiology/Microbial Biotechnology</td>
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<td>BIOL A453</td>
<td>Experiential Learning: Microbial Ecology</td>
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<td>BIOL A454</td>
<td>Experiential Learning: Microbial Biotechnology</td>
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<td>BIOL/CHEM</td>
<td>Nonlinear Dynamics and Chaos</td>
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<td>BIOL A472</td>
<td>Biogeography</td>
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<td>BIOL A473</td>
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<td>BIOL A474</td>
<td>Ecotoxicology</td>
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<td>BIOL A475</td>
<td>Fish Ecology</td>
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<td>BIOL A476</td>
<td>Wildlife Population Dynamics and Management</td>
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<td>Tundra and Taiga Ecosystem</td>
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<td>BIOL A478</td>
<td>Biological Oceanography</td>
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<td>BIOL A479</td>
<td>Physiological Plant Ecology</td>
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<td>Ecological and Conservation Genetics</td>
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<td>Marine Biology</td>
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<td>BIOL A486</td>
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<td>BIOL A487</td>
<td>Comparative Anatomy of Vertebrates</td>
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<td>Population Genetics and Evolutionary Processes</td>
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<td>CHEM A253</td>
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<td>CHEM A311</td>
<td>Physical Chemistry: A Biological Orientation</td>
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<td>Volcanology</td>
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<td>Mineralogy</td>
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<td>Igneous and Metamorphic Petrology</td>
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<td>Paleoclimatology and Global Change</td>
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<td>GEOL A495</td>
<td>Geology Internship</td>
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<td>Student Research</td>
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<td>Concepts and Processes: Natural Sciences</td>
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<td>PHYS A303</td>
<td>Modern Physics</td>
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*Students cannot get credit for both PHYS 123/L and PHYS 213/L or PHYS 124/L and PHYS 212/L.

- A minimum of 15 credits must come from the following Math and Computational Skills Course:

List for the Environmental Sciences Option:  15

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or

CS A110  Java Programming (3)
or

CS A111  Visual Basic .NET Programming (3)

or

CSCE A201  Computer Programming I (4)
CSCE A202  Object-Oriented Programming (3)
CSCE A302  Object-Oriented Design Patterns (3)
CSCE A311  Data Structures and Algorithms (3)
CSCE A351  Automata, Algorithms and Complexity (3)

CSCE A360  Database Systems (3)
CSCE A385  Computer Graphics (3)
CSCE A411  Artificial Intelligence (3)
CSCE A412  Evolutionary Computing (3)
GEO A157  Analytical and Digital Cartography (3)
GEO A167  Remote Sensing and Image Analysis (4)
GEO A248  Digital Terrain Cartography (3)
GEO A257  Elements of Photogrammetry (3)
GEO A359  Geodesy and Map Projections (3)
GEO A459  Geodetic Geomatics (3)
GEO A467  Analytical and Digital Photogrammetry (3)

GIS A268  Elements of Geographic Information Systems (GIS) (4)
GIS A295  Internship in Geographic Information Systems I (3)
GIS A366  Spatial Information Analysis and Modeling (3)
GIS A376  GIS and Remote Sensing (3)
GIS A370  GIS and Remote Sensing for Natural Resources (3)
GIS A433  Coastal Mapping (3)
GIS A458  Design and Management of Spatial Information (3)
GIS A468  Integration of Geomatics Technologies (3)
GIS A495  Internship in Geographic Information Systems II (3)

MATH A200  Calculus I (4)
or

MATH A272  Applied Calculus (3)
MATH A201  Calculus II (4)
MATH A202  Calculus III (4)
MATH A215  Introduction to Mathematical Proofs (3)
MATH A231  Introduction to Discrete Mathematics (3)
MATH A302  Ordinary Differential Equations (3)
MATH A303  Introduction to Modern Algebra (3)
MATH A305  Introduction to Geometries (3)
MATH A306 Discrete Methods (3)
MATH A314 Linear Algebra (3)
MATH A321 Analysis of Several Variables (3)
MATH A324 Advanced Calculus (3)
MATH A371 Stochastic Processes (3)
MATH A407 Mathematical Statistics I (3)
MATH A408 Mathematical Statistics II (3)
MATH A410 Introduction to Complex Analysis (3)
MATH A422 Partial Differential Equations (3)
STAT A253 Applied Statistics for the Sciences (4)

or

STAT A307 Probability and Statistics (4)
STAT A308 Intermediate Statistics for the Sciences (3)
STAT A402 Scientific Sampling (3)
STAT A403 Regression Analysis (3)
STAT A404 Analysis of Variance (3)
STAT A405 Nonparametric Statistics (3)
STAT A407 Time Series Analysis (3)
STAT A408 Multivariate Statistics (3)
STAT A490 Selected Topics in Statistics (1-3)

d. A minimum of 9 credits must come from the following Social Sciences Course List for the Environmental Sciences Option:

ANTH A101 Introduction to Anthropology (3)
ANTH A202 Cultural Anthropology (3)
ANTH A205 Biological Anthropology (3)
ANTH A335 Native North Americans (3)
ANTH A345 Culture and Ecology (3)
ANTH A415 Applied Anthropology (3)
ANTH A445 Evolution of Humans and Disease (3)
CEL A292 Introduction to Civic Engagement (3)
CEL A390 Selected Topics in Civic Engagement (1-3)

ECON A201 Principles of Macroeconomics (3)
ECON A202 Principles of Microeconomics (3)
ECON A210 Environmental Economics and Policy (3)
ECON A300 The Economy of Alaska (3)
ECON A321 Intermediate Microeconomics (3)
ECON A324 Intermediate Macroeconomics (3)
ECON A435 Natural Resource Economics (3)
ENVI A303 Environmental Ethics (3)
ENVI A470 Environmental Planning and Problem Solving (4)
ENVI A490 Topics in Environment and Society (3)
GEOG A101 Local Places/Global Regions: An Introduction to Geography (3)
LSSS A311 People, Places and Ecosystems (3)
SOC A101 Introduction to Sociology (3)
SOC A404 Environmental Sociology (3)

Pre-Health Professions Option (80 credits)

1. Complete the following required courses (24 credits):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL A115</td>
<td>Fundamentals of Biology I</td>
<td>4</td>
</tr>
<tr>
<td>BIOL A116</td>
<td>Fundamentals of Biology II</td>
<td>4</td>
</tr>
<tr>
<td>BIOL A108</td>
<td>Principles and Methods in Biology</td>
<td>6</td>
</tr>
<tr>
<td>CHEM A105</td>
<td>General Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM A105L</td>
<td>General Chemistry I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHEM A106</td>
<td>General Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM A106L</td>
<td>General Chemistry II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>PHYS A123</td>
<td>Basic Physics I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS A123L</td>
<td>Basic Physics I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>PHYS A124</td>
<td>Basic Physics II</td>
<td>3</td>
</tr>
<tr>
<td>PHYS A124L</td>
<td>Basic Physics II Laboratory</td>
<td>1</td>
</tr>
</tbody>
</table>

2. Complete an additional 56-58 credits of degree electives from the approved course lists for the Pre-Health Professions Option.

   a. A minimum of 32 credits must be upper division.
   b. A minimum of 24 credits must come from the following Natural Sciences Course List for the Pre-Health Professions Option:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL A111</td>
<td>Human Anatomy and Physiology I (4)</td>
</tr>
<tr>
<td>BIOL A112</td>
<td>Human Anatomy and Physiology II (4)</td>
</tr>
<tr>
<td>BIOL A240</td>
<td>Introductory Microbiology for Health Sciences (3)</td>
</tr>
<tr>
<td>BIOL A340</td>
<td>General Microbiology/Microbial Biology (5)</td>
</tr>
<tr>
<td>BIOL A342</td>
<td>Experiential Learning: Microbial Biology (4)</td>
</tr>
<tr>
<td>BIOL A242</td>
<td>Fundamentals of Cell Biology (3)</td>
</tr>
<tr>
<td>BIOL A252</td>
<td>Principles of Genetics (3)</td>
</tr>
<tr>
<td>BIOL A243</td>
<td>Experiential Learning: Genetics and Cell Biology (4)</td>
</tr>
<tr>
<td>BIOL A242</td>
<td>Fundamentals of Cell Biology (4)</td>
</tr>
<tr>
<td>BIOL A252</td>
<td>Principles of Genetics (4)</td>
</tr>
<tr>
<td>BIOL A310</td>
<td>Principles of Animal Physiology (4)</td>
</tr>
<tr>
<td>BIOL A320</td>
<td>Vertebrate Biology (3)</td>
</tr>
<tr>
<td>BIOL A321</td>
<td>Experiential Learning: Vertebrate Biology (2)</td>
</tr>
<tr>
<td>BIOL A403</td>
<td>Experiential Learning: Microscopical Tissue Technique/Microtechnique (4)</td>
</tr>
<tr>
<td>BIOL A408</td>
<td>Experiential Learning: Scanning Electron Microscopy (SEM) (6)</td>
</tr>
<tr>
<td>BIOL A412</td>
<td>Behavioral Endocrinology (3)</td>
</tr>
<tr>
<td>BIOL A413</td>
<td>Neurophysiology (3)</td>
</tr>
<tr>
<td>BIOL A414</td>
<td>Chronobiology (3)</td>
</tr>
<tr>
<td>BIOL A415</td>
<td>Comparative Animal Physiology (3)</td>
</tr>
</tbody>
</table>
c. A minimum of (15) credits must come from the following Social Sciences Course List for the Pre-Health Professions Option:

- ANTH A101 Introduction to Anthropology (3)
- ANTH A205 Biological Anthropology (3)
- ANTH A324 Psychological Anthropology (3)
- ANTH A365 Modern Human Biological Diversity (3)
- ANTH A445 Evolution of Humans and Disease (3)
d. A minimum of 9 credits must come from the following
Math and Computational Skills Course List for the
Pre-Health Professions Option:

MATH A200  Calculus I (4)
MATH A201  Calculus II (4)
MATH A202  Calculus III (4)
MATH A215  Introduction to Mathematical Proofs (3)
MATH A231  Introduction to Discrete Mathematics (3)
MATH A302  Ordinary Differential Equations (3)
MATH A303  Introduction to Modern Algebra (3)
MATH A305  Introduction to Geometries (3)

or

MATH A272  Applied Calculus (3)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH A306</td>
<td>Discrete Methods</td>
<td>(3)</td>
</tr>
<tr>
<td>MATH A314</td>
<td>Linear Algebra</td>
<td>(3)</td>
</tr>
<tr>
<td>MATH A321</td>
<td>Analysis of Several Variables</td>
<td>(3)</td>
</tr>
<tr>
<td>MATH A324</td>
<td>Advanced Calculus</td>
<td>(3)</td>
</tr>
<tr>
<td>MATH A371</td>
<td>Stochastic Processes</td>
<td>(3)</td>
</tr>
<tr>
<td>MATH A407</td>
<td>Mathematical Statistics I</td>
<td>(3)</td>
</tr>
<tr>
<td>MATH A408</td>
<td>Mathematical Statistics II</td>
<td>(3)</td>
</tr>
<tr>
<td>MATH A410</td>
<td>Introduction to Complex Analysis</td>
<td>(3)</td>
</tr>
<tr>
<td>MATH A422</td>
<td>Partial Differential Equations</td>
<td>(3)</td>
</tr>
<tr>
<td>MATH A490A</td>
<td>Selected Topics in Pure Mathematics</td>
<td>(1-3)</td>
</tr>
<tr>
<td>MATH A490B</td>
<td>Selected Topics in Applied Mathematics</td>
<td>(1-3)</td>
</tr>
<tr>
<td>MATH A498</td>
<td>Individual Research</td>
<td>(1-3)</td>
</tr>
<tr>
<td>STAT A253</td>
<td>Applied Statistics for the Sciences</td>
<td>(4)</td>
</tr>
<tr>
<td>STAT A307</td>
<td>Probability and Statistics</td>
<td>(4)</td>
</tr>
<tr>
<td>STAT A308</td>
<td>Intermediate Statistics for the Sciences</td>
<td>(3)</td>
</tr>
<tr>
<td>STAT A402</td>
<td>Scientific Sampling</td>
<td>(3)</td>
</tr>
<tr>
<td>STAT A403</td>
<td>Regression Analysis</td>
<td>(3)</td>
</tr>
<tr>
<td>STAT A404</td>
<td>Analysis of Variance</td>
<td>(3)</td>
</tr>
<tr>
<td>STAT A405</td>
<td>Nonparametric Statistics</td>
<td>(3)</td>
</tr>
<tr>
<td>STAT A407</td>
<td>Time Series Analysis</td>
<td>(3)</td>
</tr>
<tr>
<td>STAT A408</td>
<td>Multivariate Statistics</td>
<td>(3)</td>
</tr>
<tr>
<td>STAT A490</td>
<td>Selected Topics in Statistics</td>
<td>(1-3)</td>
</tr>
</tbody>
</table>

**General Sciences Option (80 credits)**

1. Complete the following required courses (32-30 credits):

   **Biol A115** Fundamentals of Biology I  4
   **Biol A116** Fundamentals of Biology II  4
   **Biol A108** Principles and Methods in Biology  6
   **Chem A105** General Chemistry I  3
   **Chem A105L** General Chemistry I Laboratory  1
   **Chem A106** General Chemistry II  3
   **Chem A106L** General Chemistry II Laboratory  1
   **Geol A111** Physical Geology  4
   **Geol A221** Historical Geology  4
   **Phys A123** Basic Physics I (3)  8
   **Phys A123L** Basic Physics I Laboratory (1)  1
   **Phys A124** Basic Physics II (3)  3
   **Phys A124L** Basic Physics II Laboratory (1)  1
   **Phys A211** General Physics I (3)  3
   **Phys A211L** General Physics I Laboratory (1)  1
   **Phys A212** General Physics II (3)  3
   **Phys A212L** General Physics II Laboratory (1)  1

2. Complete an additional 48-50 credits of degree electives. 48-50
a. The credits may come from the following course lists:
   i. Environmental Sciences Option Course Lists (above)
   ii. Pre-Health Professions Course Lists (above)
   iii. General Sciences Additional Course List
       - ASTR A103 Solar System Astronomy (3)
       - ASTR A103L Solar System Astronomy Laboratory (1)
       - ASTR A104 Stars, Galaxies and Cosmology (3)
       - ASTR A104L Stars, Galaxies and Cosmology Laboratory (1)
       - PHYS A311 Intermediate Classical Mechanics (3)
       - PHYS/EE A314 Electromagnetics (3)
       - PHYS A320 Simulation of Physical Systems (3)
       - PHYS/EE A324 Electromagnetics II (3)
       - PHYS A403 Quantum Mechanics (3)
       - PHYS A413 Statistical and Thermal Mechanics (3)
       - PHYS A498 Individual Research (1-6)

b. At least two of the following disciplines must be represented at the upper division level: Astronomy, Biology, Chemistry, Geology, Mathematics, Physics, Statistics.

FACULTY

Lilian Alessa, Professor, lalessa@uaa.alaska.edu
Eric Bortz, Assistant Professor, ebortz@uaa.alaska.edu
C. Loren Bock, Professor, clbock@uaa.alaska.edu
Jason Burkhead, Assistant Professor, jburkhead@uaa.alaska.edu
Jennifer Mas Burns, Professor, jmburns@uaa.alaska.edu
Matt Carlson, Associate Professor, mcarlson@uaa.alaska.edu
Douglas Causey, Professor, dcausey@uaa.alaska.edu
Kristine Crossen, Associate Professor, krcrossen@uaa.alaska.edu
Kerry Duddleston, Associate Professor, kduddleston@uaa.alaska.edu
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Jerry Kudenov, Professor, jkoudenov@uaa.alaska.edu
Miki Li, Assistant Professor, mli@uaa.alaska.edu
Kristine Mann, Professor Emeritus, afkem@uaa.alaska.edu
Jerry Maselko, Professor, jmaselko@uaa.alaska.edu
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LeeAnn Munk, Associate Professor, lamunk@uaa.alaska.edu
Terry Neumann, Associate Professor, tneumann@uaa.alaska.edu
James Pantaleone, Professor, jtpantaleone@uaa.alaska.edu
Ann Pech, Emeritus Professor, afap@uaa.alaska.edu
Kim Peterson, Professor, kpeterson@uaa.alaska.edu
To: Undergraduate Academic Board  
From: Dr. Talis Colberg, Director, Mat-Su College  
Date: April 16, 2014  
Re: Proposed Deletion of the CAD for Building Construction (Occupational Endorsement) on the Mat-Su College campus

Program Background: How long has the program been offered? If admissions are currently suspended, please indicate the length of the suspension. The CAD for Building Construction (Occupational Endorsement) has been offered on the Mat-Su College (MSC) campus since Fall 2007. Admission to the program was suspended Summer 2013.

Justification for Program Deletion: Why is this program deletion proposed? What other options were considered to resolve the concerns which led to the proposed deletion? Program enrollments had been steadily declining. In AY 2013, the AET program faculty member responsible for all AET programs announced her retirement. She advised of declining employment opportunities for students in AET and recommended closure of the program. With enrollments growing in other MSC programs a decision was made to reallocate the open faculty position and close all AET programs on the Mat-Su College campus.

Impact on Other Programs: How will the deletion affect other UA programs (including those at other campuses and MAUs)? Please include the GERs, programs on other campuses, and programs whose requirements include courses offered within the program proposed for deletion. How have you coordinated with those departments? The Community and Technical College still offers the AET courses and programs, both face-to-face and via distance. Mat-Su College has informed CTC that we intend to close the programs at Mat-Su College.

Impact on Students: How many students are currently enrolled (admitted to the program and taking classes)? How many students are currently admitted (admitted to the program but not currently taking classes)? How does the department plan to accommodate those students? Admitted students were informed of the suspension of admission to the program last year. Four students have completed 0 credits toward the OEC and none have attended UAA for more than two years. These students are being notified that per UAA policy their admission to the program has been cancelled and they must reapply to the University in the event they decide to return. They are encouraged to meet with MSC advisors to explore other career or degree options.

Impact on Stakeholders: Describe any input received from relevant stakeholders, such as industry advisory groups or communities served. The industry has changed and software has replaced the need for AET graduates.

Plans for Program Deletion: What is the planned timeline for the deletion? Will the deleted program be replaced by a new or modified program? The program will not be replaced by a new or modified program. We would like to close the program immediately.

This cover memo should be completed along with the Program Action Request (PAR) form submitted to curriculum bodies for program deletions, as well as the External Approval Requirements form. Catalog copy does not need to be submitted for program deletions.

1 Please contact the Office of the Registrar (786-1560) for assistance identifying these data.
1a. School or College
   MA Mat-SU

1b. Department

2. Complete Program Title/PREFIX
   CAD for Building Construction

3. Type of Program
   Choose one from the appropriate drop down menu:
   Undergraduate: or Graduate: Occupational Endorsement Certificate
   CHOOSE ONE

   This program is a Gainful Employment Program: ☐ Yes or ☐ No

4. Type of Action:
   PROGRAM
   Add
   Change
   ☑️ Delete
   PREFIX
   Add
   Change
   ☐ Inactivate

5. Implementation Date (semester/year)
   From: Fall/2014   To: /

6a. Coordination with Affected Units
   Department, School, or College: MA Mat-Su
   Initiator Name (typed): Talis Colberg
   Initiator Signed Initials: _________
   Date:________________

6b. Coordination Email submitted to Faculty Listserv (uaa-faculty@lists.uaa.alaska.edu)
   Date: ______

6c. Coordination with Library Liaison
   Date: ______

7. Title and Program Description
   Please attach the following:
   ☑️ Cover Memo   ☐ Catalog Copy in Word using the track changes function

8. Justification for Action
   Program suspended in 2013 due to low enrollment and faculty retirement.

   ____________________________________________________________
   Initiator (faculty only)         Date
   Mark Masteller
   Initiator (TYPE NAME)
   _________
   ____________________________
   Approved                      Disapproved
   Dean/Director of School/College
   ____________________________
   Approved                      Disapproved
   Undergraduate/Graduate Academic
   ____________________________
   Approved                      Disapproved
   Board Chair
   ____________________________
   Approved                      Disapproved
   Provost or Designee
   ____________________________
   Approved                      Disapproved
   College/School Curriculum Committee Chair
To: Undergraduate Academic Board
From: Dr. Talis Colberg, Director, Mat-Su College
Date: April 16, 2014
Re: Proposed Deletion of the AAS in Architectural & Engineering Technology degree on the Mat-Su College campus

Program Background: How long has the program been offered? If admissions are currently suspended, please indicate the length of the suspension. The AAS in Architectural & Engineering Technology degree has been offered on the Mat-Su College (MSC) campus since Fall 2001. Admission to the program was suspended Summer 2013.

Justification for Program Deletion: Why is this program deletion proposed? What other options were considered to resolve the concerns which led to the proposed deletion? Program enrollments had been steadily declining. In AY 2013, the AET program faculty member responsible for all AET programs announced her retirement. She advised of declining employment opportunities for students in AET and recommended closure of the program. With enrollments growing in other MSC programs a decision was made to reallocate the open faculty position and close all AET programs on the Mat-Su College campus.

Impact on Other Programs: How will the deletion affect other UA programs (including those at other campuses and MAUs)? Please include the GERs, programs on other campuses, and programs whose requirements include courses offered within the program proposed for deletion. How have you coordinated with those departments? The Community and Technical College still offers the AET courses and programs, both face-to-face and via distance. Mat-Su College has informed CTC that we intend to close the programs at Mat-Su College.

Impact on Students: How many students are currently enrolled (admitted to the program and taking classes)? How many students are currently admitted (admitted to the program but not currently taking classes)? How does the department plan to accommodate those students? Admitted students were informed of the suspension of admission to the program last year. One student will complete the degree Spring 2014. Active outreach is being made to 13 students to determine academic intent. These students are not enrolled in AET courses and appear to be pursuing other majors. If any of these 13 students indicate a desire to complete the degree, MSC advisors will work with them to develop a completion program that will include AET course offerings, face-to-face and online, that are available through the Community and Technical College. When these 13 students were contacted regarding program suspension, none indicated a desire to complete the AET program. Fourteen students, none actively enrolled, have exceeded the five years to complete the degree. These students are being notified that their admission to the program has expired. Thirty-five students have not attended UAA for more than two years. These students are being notified that per UAA policy their admission to the program has been cancelled and they must reapply to the University in the event they decide to return. These students are being encouraged to contact MSC advisors to explore other degree and career options.

Impact on Stakeholders: Describe any input received from relevant stakeholders, such as industry advisory groups or communities served. The industry has changed and software has replaced the need for AET graduates.

Plans for Program Deletion: What is the planned timeline for the deletion? Will the deleted program be replaced by a new or modified program? The program will not be replaced by a new or modified program. We would like to close the program immediately.

1 Please contact the Office of the Registrar (786-1560) for assistance identifying these data.
Program/Prefix Action Request  
University of Alaska Anchorage  
Proposal to Initiate, Add, Change, or Delete a Program of Study or Prefix

<table>
<thead>
<tr>
<th>1a. School or College</th>
<th>1b. Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA Mat-SU</td>
<td></td>
</tr>
</tbody>
</table>

2. Complete Program Title/PREFIX  
Architectural and Engineering Technology

3. Type of Program  
Choose one from the appropriate drop down menu:  
Undergraduate: or  
Graduate:  
Associate of Applied Science  
CHOOSE ONE

This program is a Gainful Employment Program:  
☐ Yes  
☐ No

4. Type of Action:  
PROGRAM  
☐ Add  
☐ Change  
☒ Delete

PREFIX  
☐ Add  
☐ Change  
☐ Inactivate

5. Implementation Date (semester/year)  
From: Fall 2014  
To:  
/

6a. Coordination with Affected Units  
Department, School, or College: MA Mat-Su  
Initiator Name (typed): Talis Colberg  
Date: __________  
Initiator Signed Initials: _________

6b. Coordination Email submitted to Faculty Listserv (uaa-faculty@lists.uaa.alaska.edu)  
Date: ______

6c. Coordination with Library Liaison  
Date: ______

7. Title and Program Description - Please attach the following:  
☒ Cover Memo  
☐ Catalog Copy in Word using the track changes function

8. Justification for Action  
Program suspended in 2013 due to low enrollment and faculty retirement.

Initiator (faculty only)  
Mark Masteller  
Initiator (TYPE NAME)  
☐ Approved  
☐ Disapproved  
Date  
Dean/Director of School/College  
Date

☐ Approved  
☐ Disapproved  
Date  
Undergraduate/Graduate Academic  
Date

☐ Approved  
☐ Disapproved  
Date  
Board Chair

☐ Approved  
☐ Disapproved  
Date  
Provost or Designee

☐ Approved  
☐ Disapproved  
Date  
Department Chair

☐ Approved  
☐ Disapproved  
Date  
College/School Curriculum Committee Chair

---

526
To: Undergraduate Academic Board  
From: Dr. Talis Colberg, Director, Mat-Su College  
Date: April 16, 2014  
Re: Proposed Deletion of the Architectural Drafting (Undergraduate Certificate) on the Mat-Su College campus

Program Background: How long has the program been offered? If admissions are currently suspended, please indicate the length of the suspension. The Architectural Drafting (Undergraduate Certificate) has been offered on the Mat-Su College (MSC) campus since Fall 2001. Admission to the program was suspended Summer 2013.

Justification for Program Deletion: Why is this program deletion proposed? What other options were considered to resolve the concerns which led to the proposed deletion? Program enrollments had been steadily declining. In AY 2013, the AET program faculty member responsible for all AET programs announced her retirement. She advised of declining employment opportunities for students in AET and recommended closure of the program. With enrollments growing in other MSC programs a decision was made to reallocate the open faculty position and close all AET programs on the Mat-Su College campus.

Impact on Other Programs: How will the deletion affect other UA programs (including those at other campuses and MAUs)? Please include the GERs, programs on other campuses, and programs whose requirements include courses offered within the program proposed for deletion. How have you coordinated with those departments? The Community and Technical College still offers the AET courses and programs, both face-to-face and via distance. Mat-Su College has informed CTC that we intend to close the programs at Mat-Su College.

Impact on Students:1 How many students are currently enrolled (admitted to the program and taking classes)? How many students are currently admitted (admitted to the program but not currently taking classes)? How does the department plan to accommodate those students? Admitted students were informed of the suspension of admission to the program last year. One student has applied to graduate spring 2014. Four students have not attended UAA for more than two years. These students are being notified that per UAA policy their admission to the program has been cancelled and they must reapply to the University in the event they decide to return. Additionally, two of these four students have also exceeded the five years length of admission to complete certificate requirements. The students are being encouraged to meet with MSC advisors to explore other career and degree options.

Impact on Stakeholders: Describe any input received from relevant stakeholders, such as industry advisory groups or communities served. The industry has changed and software has replaced the need for AET graduates.

Plans for Program Deletion: What is the planned timeline for the deletion? Will the deleted program be replaced by a new or modified program? The program will not be replaced by a new or modified program. We would like to close the program immediately.

This cover memo should be completed along with the Program Action Request (PAR) form submitted to curriculum bodies for program deletions, as well as the External Approval Requirements form. Catalog copy does not need to be submitted for program deletions.

1 Please contact the Office of the Registrar (786-1560) for assistance identifying these data.
Program/PREFIX Action Request  
University of Alaska Anchorage  
Proposal to Initiate, Add, Change, or Delete a Program of Study or Prefix

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<tr>
<td>Architectural Drafting</td>
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<tbody>
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<td>Choose one from the appropriate drop down menu: Undergraduate: or Graduate: Undergraduate Certificate</td>
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<td>Initiator Name (typed): Talis Colberg</td>
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| 6b. Coordination Email submitted to Faculty Listserv (uaa-faculty@lists.uaa.alaska.edu) |
| Date:___ |

| 6c. Coordination with Library Liaison Date:___ |

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<td>Program suspended in 2013 due to low enrollment and faculty retirement.</td>
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Initiator (faculty only)  
Mark Masteller  
Initiator (TYPE NAME)  
Date:___  

☑ Approved                      ☑ Disapproved  
☑ Disapproved                  Dean/Director of School/College  Date:___  
☑ Approved                     Undergraduate/Graduate Academic  Date:___  
☑ Disapproved                  Board Chair  Date:___  
☑ Approved                     Provost or Designee  Date:___  
☑ Disapproved                  Date:___  

528
To: Undergraduate Academic Board
From: Dr. Talis Colberg, Director, Mat-Su College
Date: 4/16/14
Re: Proposed Deletion of the Structural Drafting (Undergraduate Certificate) on the Mat-Su College campus

Program Background: How long has the program been offered? If admissions are currently suspended, please indicate the length of the suspension. The Structural Drafting (Undergraduate Certificate) has been offered on the Mat-Su College (MSC) campus since Fall 2001. Admission to the program was suspended Summer 2013.

Justification for Program Deletion: Why is this program deletion proposed? What other options were considered to resolve the concerns which led to the proposed deletion? Program enrollments had been steadily declining. In AY 2013, the AET program faculty member responsible for all AET programs announced her retirement. She advised of declining employment opportunities for students in AET and recommended closure of the program. With enrollments growing in other MSC programs a decision was made to reallocate the open faculty position and close all AET programs on the Mat-Su College campus.

Impact on Other Programs: How will the deletion affect other UA programs (including those at other campuses and MAUs)? Please include the GERs, programs on other campuses, and programs whose requirements include courses offered within the program proposed for deletion. How have you coordinated with those departments? The Community and Technical College still offers the AET courses and programs, both face-to-face and via distance. Mat-Su College has informed CTC that we intend to close the programs at Mat-Su College.

Impact on Students: How many students are currently enrolled (admitted to the program and taking classes)? How many students are currently admitted (admitted to the program but not currently taking classes)? How does the department plan to accommodate those students? There are no admitted students in the program.

Impact on Stakeholders: Describe any input received from relevant stakeholders, such as industry advisory groups or communities served. The industry has changed and software has replaced the need for AET graduates.

Plans for Program Deletion: What is the planned timeline for the deletion? Will the deleted program be replaced by a new or modified program? The program will not be replaced by a new or modified program. We would like to close the program immediately.

This cover memo should be completed along with the Program Action Request (PAR) form submitted to curriculum bodies for program deletions, as well as the External Approval Requirements form. Catalog copy does not need to be submitted for program deletions.

1 Please contact the Office of the Registrar (786-1560) for assistance identifying these data.
### Program/Prefix Action Request

**University of Alaska Anchorage**

**Proposal to Initiate, Add, Change, or Delete a Program of Study or Prefix**

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This program is a Gainful Employment Program: □ Yes or □ No

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| 6b. Coordination Email submitted to Faculty Listserv (uaa-faculty@lists.uaa.alaska.edu) | Date: _____ |
|-----------------------------------------------------------------------------------------|

| 6c. Coordination with Library Liaison | Date: _____ |
|--------------------------------------|

| 7. Title and Program Description - Please attach the following: |
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<td>College/School Curriculum Committee Chair</td>
<td>Date</td>
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530
To: Undergraduate Academic Board
From: Dr. Talis Colberg, Director, Mat-Su College
Date: April 16, 2014
Re: Proposed Deletion of the Civil Drafting (Undergraduate Certificate) on the Mat-Su College campus

Program Background: How long has the program been offered? If admissions are currently suspended, please indicate the length of the suspension. The Civil Drafting (Undergraduate Certificate) has been offered on the Mat-Su College (MSC) campus since Fall 2001. Admission to the program was suspended Summer 2013.

Justification for Program Deletion: Why is this program deletion proposed? What other options were considered to resolve the concerns which led to the proposed deletion? Program enrollments had been steadily declining. In AY 2013, the AET program faculty member responsible for all AET programs announced her retirement. She advised of declining employment opportunities for students in AET and recommended closure of the program. With enrollments growing in other MSC programs a decision was made to reallocate the open faculty position and close all AET programs on the Mat-Su College campus.

Impact on Other Programs: How will the deletion affect other UA programs (including those at other campuses and MAUs)? Please include the GERS, programs on other campuses, and programs whose requirements include courses offered within the program proposed for deletion. How have you coordinated with those departments? The Community and Technical College still offers the AET courses and programs, both face-to-face and via distance. Mat-Su College has informed CTC that we intend to close the programs at Mat-Su College.

Impact on Students: How many students are currently enrolled (admitted to the program and taking classes)? How many students are currently admitted (admitted to the program but not currently taking classes)? How does the department plan to accommodate those students? Admitted students were informed of the suspension of admission to the program last year. At this time, three students are currently admitted to the program. None are currently enrolled in AET courses. Active outreach is being made to these three students to determine academic intent. If any of these three students indicate a desire to complete the certificate, MSC advisors will work with them to develop a completion program that will include AET course offerings, face-to-face and online, that are available through the Community and Technical College.

Impact on Stakeholders: Describe any input received from relevant stakeholders, such as industry advisory groups or communities served. The industry has changed and software has replaced the need for AET graduates.

Plans for Program Deletion: What is the planned timeline for the deletion? Will the deleted program be replaced by a new or modified program? The program will not be replaced by a new or modified program. We would like to close the program immediately.

This cover memo should be completed along with the Program Action Request (PAR) form submitted to curriculum bodies for program deletions, as well as the External Approval Requirements form. Catalog copy does not need to be submitted for program deletions.

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2. Complete Program Title/Prefix
Civil Drafting

3. Type of Program
Choose one from the appropriate drop down menu:
Undergraduate: or Graduate: CHOOSE ONE

This program is a Gainful Employment Program: ☐ Yes or ☐ No

4. Type of Action:
- PROGRAM
  - □ Add
  - □ Change
  - ☒ Delete
- PREFIX
  - □ Add
  - □ Change
  - □ Inactivate

5. Implementation Date (semester/year)
From: Fall 2014 To: /

6a. Coordination with Affected Units
Department, School, or College: MA Mat-Su
Initiator Name (typed): Talis Colberg
Initiator Signed Initials: _________
Date: __________

6b. Coordination Email submitted to Faculty Listserv (uaa-faculty@lists.uaa.alaska.edu)
Date: _____

6c. Coordination with Library Liaison
Date: _____

7. Title and Program Description - Please attach the following:
- ☒ Cover Memo
- ☐ Catalog Copy in Word using the track changes function

8. Justification for Action
Program suspended in 2013 due to low enrollment and faculty retirement.

Initiator (faculty only) ____________________________ Date __________
Mark Masteller
Initiator (TYPE NAME)

Approved Disapproved
☐ Dean/Director of School/College Date

Approved Disapproved
☐ Undergraduate/Graduate Academic Date

Approved Disapproved
☐ Board Chair Date

Approved Disapproved
☐ Provost or Designee Date

Approved Disapproved
☐ Department Chair Date

Approved Disapproved
☐ College/School Curriculum Committee Chair Date
To: Undergraduate Academic Board  
From: Dr. Talis Colberg, Director, Mat-Su College  
Date: April 16, 2014  
Re: Proposed Deletion of Mechanical and Electrical Drafting (Undergraduate Certificate) on the Mat-Su College campus

Program Background: How long has the program been offered? If admissions are currently suspended, please indicate the length of the suspension. The Mechanical and Electrical Drafting (Undergraduate Certificate) has been offered on the Mat-Su College (MSC) campus since Fall 2001. Admission to the program was suspended Summer 2013.

Justification for Program Deletion: Why is this program deletion proposed? What other options were considered to resolve the concerns which led to the proposed deletion? Program enrollments had been steadily declining. In AY 2013, the AET program faculty member responsible for all AET programs announced her retirement. She advised of declining employment opportunities for students in AET and recommended closure of the program. With enrollments growing in other MSC programs a decision was made to reallocate the open faculty position and close all AET programs on the Mat-Su College campus.

Impact on Other Programs: How will the deletion affect other UA programs (including those at other campuses and MAUs)? Please include the GERs, programs on other campuses, and programs whose requirements include courses offered within the program proposed for deletion. How have you coordinated with those departments? The Community and Technical College still offers the AET courses and programs, both face-to-face and via distance. Mat-Su College has informed CTC that we intend to close the programs at Mat-Su College.

Impact on Students:¹ How many students are currently enrolled (admitted to the program and taking classes)? How many students are currently admitted (admitted to the program but not currently taking classes)? How does the department plan to accommodate those students? Admitted students were informed of the suspension of admission to the program last year. Two students have not attended UAA for more than two years and one of these two has completed 0 AET credits. These students are being notified that, per UAA policy, their admission to the program has been cancelled and they must reapply to the University in the event they decide to return. Three students have exceeded the five years to complete the degree limit and two of these have earned 0 credits toward the certificate. These students are being notified that their admission to the program has expired. These five students are being encouraged to meet with advisors to explore other degree options.

Impact on Stakeholders: Describe any input received from relevant stakeholders, such as industry advisory groups or communities served. The industry has changed and software has replaced the need for AET graduates.

Plans for Program Deletion: What is the planned timeline for the deletion? Will the deleted program be replaced by a new or modified program? The program will not be replaced by a new or modified program. We would like to close the program immediately.

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| Approved |
| Disapproved |
| College/School Curriculum Committee Chair |

| Approved |
| Disapproved |
| Provost or Designee |

| Approved |
| Disapproved |
| Provost or Designee |

534
COLLEGE OF ARTS AND SCIENCES

The College of Arts and Sciences is dedicated to the principle that an enlightened understanding of the world is fostered by study of the physical environment, cultural values and processes, creative expressions, and systems of thought and discovery. In fulfillment of this educational commitment, the fields of study offered by the college serve two ends: they are intellectually valuable in themselves, and they are an essential complement to other fields of knowledge. The faculty are highly trained and energetic professionals who are here to impart the knowledge and skills of their academic disciplines both to majors within the college and to students in the various professional schools and the community. The formal means of communicating this knowledge and these skills are the courses and degree programs of the college.

The college welcomes applications from students who have just graduated from high school as well as from those who are continuing their higher education, whether to complete an associate or a baccalaureate degree or to undertake graduate studies. Students who wish to begin work on their degrees at another university or at a junior or community college and intend to transfer credits to the University of Alaska Anchorage should plan their coursework in accordance with the General University Requirements and the requirements of the particular program in which they are interested in earning a degree.

Prospective transfer students, particularly those who have not decided upon a major, should pay special attention to the requirements of programs within the College of Arts and Sciences regarding the applicability of credits toward degrees.

High School Preparation

The following high school courses are recommended but not necessarily required in preparation for admission to the various programs within the College of Arts and Sciences:

**Arts**

One to two years with emphasis in basic and fundamental courses in the arts with more advanced courses dependent upon students’ particular interest.

**Computer Science**

One to two years. Basic knowledge of computer science recommended for all college-bound students.

**English**

Four years with emphasis on spelling, writing, grammar, and research skills, such as preparation of bibliographies.

**Language**

One to two years. Suggested languages: German, Russian, Latin, Japanese, French, Spanish, Chinese or Native languages.

**Mathematics**

**BA candidates:** Three years with emphasis on algebra I and II, trigonometry, geometry, analysis.

**BS candidates:** Four years with emphasis on algebra I and II, trigonometry, geometry, analysis.

**Science**

**BA candidates:** Two to three years with emphasis in biology, chemistry, physics, geology and/or earth science.

**BS candidates:** Three to four years with emphasis in biology, chemistry, physics, geology and/or earth science.

**Social Sciences**

Two years with emphasis in world history, U.S. history, comparative political theory, current events, geography, cultural anthropology and/or prehistoric archaeology.

**College of Arts and Sciences Requirements**

To earn a Bachelor of Arts; Bachelor of Science; or Bachelor of Music, Performance, students must complete the CAS requirements shown below, in addition to the General Education Requirements, the General University Requirements, and major program requirements. Students completing an interdisciplinary studies degree in which all academic disciplines represented in their major concentration are within the College of Arts and Sciences must also meet the CAS BA or BS requirements. Students should examine the program descriptions for the major program and consult with an advisor before making final course selections. Some courses may be used to satisfy more than one requirement in a degree program.

**Electives**

No more than 6 credits in lower division Education-Physical Education (EDPE), and/or Physical Education Professional (PEP), and/or Physical Education and Recreation (PER) courses may be applied toward a BA or BS degree program offered by the College of Arts and Sciences.
CAS BA/BS Student Learning Outcomes

The University of Alaska Anchorage (UAA) College of Arts and Sciences recognizes that a college education is a multi-faceted and dynamic series of interactions which provides tools for a wide range of uses, from professional degrees to the joys of life-long learning. At UAA’s College of Arts and Sciences, we value the importance of a heightened awareness of the human and natural world; the advancement of cultural and scientific literacy; the need for creative problem-solving and critical reflection; and the ethical engagement in one’s academic discipline and the community.

Bachelor of Arts

In addition to discipline specific knowledge and methodologies, students graduating with a Bachelor of Arts degree in the College of Arts and Sciences will demonstrate:

- An ability to formulate and evaluate arguments based on evidence;
- An ability to analyze the context and significance of events, concepts, texts, and actions;
- An understanding of cultural differences and similarities and the complexities of intercultural relations;
- A knowledge of scientific approaches to the study of individuals, groups, and systems;
- An application of the creative processes through direct participation in or study of the arts.

Bachelor of Science

In addition to discipline specific quantitative and scientific methods, students graduating with a Bachelor of Science degree in the College of Arts and Sciences will demonstrate:

- An ability to engage in, analyze and communicate results of scientific inquiry;
- An ability to critically reflect on the nature and process of science;
- An understanding of the ethical standards of science, consistent with one’s academic discipline and in professional, social, and cultural contexts;
- An application of scientific skills and knowledge to address problem-oriented questions through authentic research experience or through a community-engaged internship or practicum.

Bachelor of Arts

Students who earn a Bachelor of Arts degree demonstrate the ability to engage in independent, critical thinking, to communicate effectively, and to articulate how the liberal arts shape knowledge and action.

The Bachelor of Arts degree is a liberal arts degree. The basic assumption of a liberal arts degree is that a broad knowledge base will serve the student over a lifetime.

A. Cultural Heritages

1. Comparative Cultures  3  
   (ANTH A250)
2. Western Culture  6  
   (HIST A101 and HIST A102)
3. American Culture  3  
   (HIST A131, HIST A132, PS A101)

B. Arts and Letters

1. Introduction to Literature  3  
   (ENGL A121, ENGL A301, ENGL A302, ENGL A305, ENGL A306, ENGL A307)
2. Language/Humanities  6-8  
   Any two-semester sequence in one of the following humanities sequences or in a language other than English: [AKNS A101-AKNS A102 (with same letter suffix), ART A261-ART A262, ENGL A201-ENGL A202, MUS A221-MUS A222*, PHIL A211-PHIL A212, PHIL A313-PHIL A314, PS A332-PS A333, THR A311-THR A312, THR A411-THR A412]
BA Music majors must select courses outside their major.

C. Ways of Knowing 3
   (ENGL A120, PHIL A101, PHIL A201, PHIL A301, PHIL A421)

D. Social Behavior 3
   Choose one of the following not in the major:
   (ANTH A101, COMM A101, ECON A201, JPC A101,
   PS A102, PSY A111, SOC A101, HUMS/SWK A106)

Bachelor of Science

Students who earn a Bachelor of Science degree demonstrate knowledge of the scientific method and an ability to apply and to think critically about the practice of science. The requirements of the Bachelor of Science degree are designed to equip students with the technical competencies needed in scientific disciplines.

A. Mathematics and Statistics
   (MATH A200 or MATH A272) 3-4
   (STAT A253 or STAT A307) 4

B. Computer Programming
   (CS A109, CS A110, CS A111, CSCE A201, CSCE A202) 3-4

C. Language/Humanities 6-8
   Any two-semester sequence in French, German, Japanese, Russian or Spanish, or one of the following humanities sequences:
   (ART A261-ART A262, ENGL A201-ENGL A202,
   MUS A221-MUS A222, PHIL A211-PHIL A212,
   PHIL A313-PHIL A314, PS A332-PS A333,
   THR A311-THR A312, THR A411-THR A412)

D. Natural Sciences 9*
   To be selected from the following list:
   (ASTR A103, ASTR A104, BIOL A102, BIOL A103, BIOL A111,
   BIOL A112, BIOL A113, BIOL A114, BIOL A115, BIOL A116,
   CHEM A103/L, CHEM A104/L, CHEM A105/L, CHEM A106/L,
   GEOG A111, GEOL A221 PHYS A123/L, PHYS A124/L, PHYS A211/L, PHYS A212/L)

*The total natural science requirement of each student includes 16 credits (7 credits from the natural science GER and 9 credits from the CAS Bachelor of Science requirement). These two requirements may be met by any combination of applicable courses that combine to 16 credits. The total must include two laboratory courses and at least 6 credits in each of two disciplines.

Bachelor of Music, Performance

Language Proficiency 8
   Two semesters of oral language study.

Bachelor of Fine Arts

The Bachelor of Fine Arts is a professionally oriented program designed to prepare students for careers in art. No additional college requirements.

Bachelor of Liberal Studies

The Bachelor of Liberal Studies (BLS) degree is an interdisciplinary program intended for students who prefer a broad liberal arts and sciences degree rather than a Bachelor of Arts or Bachelor of Science degree in a single discipline. No additional college requirements.

CAS Minor

A minor from the College of Arts and Sciences will consist of a minimum of 18 credits, at least 6 of which will be upper division. Refer to each discipline for specific courses required. Also see Minors policy earlier in this chapter.

The following is the listing of degrees available from the College of Arts and Sciences: