I. Roll
( ) Dave Fitzgerald (CBPP) ( ) Ira Ortega (COE) ( ) Christina Stuive (SA) ( ) Adjunct vacancy
( ) Paola Banchero (CAS) ( ) Jeffrey Callahan (CTC) ( ) Francisco Miranda (FS CAS) ( ) USUAA vacancy
( ) Mari Ippolito (CAS) ( ) Utpal Dutta (SOE) ( ) Alberta Harder (FSAL) ( ) Ex-Officio Members:
( ) Barbara Harville(CAS) ( ) Michael Hawfield (KPC) ( ) Soren Orley (FSAL) ( ) Susan Kalina
( ) Len Smiley (CAS) ( ) Kevin Keating (LIB) ( ) FS at large vacancy ( ) Lora Volden
( ) Lynn Senette (COH) ( ) Joan O’Leary (Mat-su) ( ) Kathryn Hollis Buchanan(Kodiak) ( ) S&P
( ) Eileen Weatherby (COH) ( ) Vacant (Adjunct)

II. Approval of the Agenda (pg.1-2)

III. Approval of Meeting Summary (pg. 3-4)

IV. Administrative Report
A. Vice Provost for Undergraduate Academic Affairs Susan Kalina

B. University Registrar Lora Volden

V. Chair’s Report
A. UAB Chair- Dave Fitzgerald

B. GERC

VI. Program/Course Action Request- Second Readings

VII. Program/Course Action Request- First Readings

Chg ECON A321 Intermediate Microeconomics (3 cr)(3+0)(pg. 5-9)
Del CIS A360 Object-Oriented Programming in .Net (3 cr)(3+0)(pg. 10-11)
Chg CIS A460 Web Development in the .Net Environment (3 cr)(3+0)(pg. 12-16)
Chg BA A427 International Finance (3 cr)(3+0)(pg. 17-20)
Chg BBA, Marketing (pg. 21-31)
Chg PRT A101 Introduction to Process Technology (3 cr)(3+0)(pg. 32-35)
Chg PRT A110 Introduction to Process Safety/Health/Environmental Awareness (3 cr)(3+0)(pg. 36-40)
Chg PRT A130 Process Technology I: Equipment (4 cr)(4+0)(pg. 41-47)
Chg PRT A160 Oil & Gas Exploration and Production I (3 cr)(3+0)(pg. 48-53)
Chg PRT A230 Process Technology II: Systems (4 cr)(3+2)(pg. 54-59)
Chg PRT A231 Process Technology III: Operations (4 cr)(3+2)(pg. 60-66)
Chg    PRT A250    Process Troubleshooting (3 cr)(3+0)(pg. 67-70)
Chg    PRT A255    Quality Concepts for the Process Industry (1 cr)(1+0)(pg. 71-74)

VIII. Old Business

IX. New Business
A. Election of New Chair
B. Policy on Returning Students / Re Enrollment (pg. 75)
C. Review Goals (pg. 76)

X. Informational Items and Adjournment
I. Roll
(x) Dave Fitzgerald (CBPP)  ( ) Ira Ortega (COE)  (x) Christina Stuive (SA)  ( ) Adjunct vacancy
(e) Paola Banchero (CAS)  (x) Jeffrey Callahan (CTC) (x) Francisco Miranda (FS CAS)  ( ) USUAA vacancy
(x) Mari Ippolito (CAS)  (e) Utpal Dutta (SOE) (x) Alberta Harder (FSAL)  Ex-Officio Members:
(e) Barbara Harville (CAS)  (x) Michael Hawfield (KPC) (x) Soren Orley (FSAL)  ( ) Susan Kalina
(x) Len Smiley (CAS)  (x) Kevin Keating (LIB)  ( ) FS at large vacancy  (x) Lora Volden
(x) Lynn Senette (COH)  (x) Joan O’Leary (Mat-su) (x) Kathrynn Hollis Buchanan (Kodiak)  (x) S&P
(x) Eileen Weatherby (COH)  ( ) Vacant (Adjunct)

II. Approval of the Agenda (pg. 1-2)
  Approved

III. Approval of Meeting Summary (pg. 3-4)
The OEC in Community Mental Health Services was waived for first reading and approved for second
Approved as amended

IV. Administrative Report
   A. Vice Provost for Undergraduate Academic Affairs Susan Kalina

   B. University Registrar Lora Volden
   Grades are due May 8th
   Received an email from procurement last week that stated the funds to purchase the online catalog will
   be available soon
   Went to a conference last week which discussed federal compliance issues

V. Chair’s Report
   A. UAB Chair- Dave Fitzgerald
   Reminded the board that next week is the last meeting of the year and a chair will need to be elected

   B. GERC
   Had no curriculum to review
   Discussed the process for removing courses from the GER list
   Discussed the GER Social Science Template

VI. Program/Course Action Request- Second Readings
   Chg  PSY A427 Field Experience in Psychology (3 cr) (1+6) (pg. 5-9)
   Unanimously Approved

   Chg  BS, Psychology (pg. 10)
   Unanimously Approved

   Chg  BA, Psychology (pg. 11-20)
   Unanimously Approved

VII. Program/Course Action Request- First Readings
   Chg  Minor, Civil Engineering (pg. 21)
   Waive first reading, approve for second

   Chg  BS, Civil Engineering (pg. 22-35)
   Waive first reading, approve for second
Add Prefix, Fisheries Technology (FT) (pg. 36-37)

Withdrawn as it already exists

Chg PRT A101 Introduction to Process Technology (3 cr)(3+0)(pg. 38-41)
Chg PRT A110 Introduction to Process Safety/Health/Environmental Awareness (3 cr)(3+0)(pg. 42-46)
Chg PRT A130 Process Technology I: Equipment (4 cr)(4+0)(pg. 47-53)
Chg PRT A160 Oil & Gas Exploration and Production I (3 cr)(3+0)(pg. 54-59)
Chg PRT A230 Process Technology II: Systems (4 cr)(3+2)(pg. 60-65)
Chg PRT A231 Process Technology III: Operations (4 cr)(3+2)(pg. 66-72)
Chg PRT A250 Process Troubleshooting (3 cr)(3+0)(pg. 73-76)
Chg PRT A255 Quality Concepts for the Process Industry (1 cr)(1+0)(pg. 77-80)

All PRT courses are postponed until coordination is attained with the CTC curriculum committee

VIII. Old Business

IX. New Business

X. Informational Items and Adjournment
## 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>CB CBPP</th>
<th>1b. Division</th>
<th>ADEP Division of Econ Public Pol</th>
<th>1c. Department</th>
<th>Economics</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Course Prefix</td>
<td>ECON</td>
<td>3. Course Number</td>
<td>A321</td>
<td>4. Previous Course Prefix &amp; Number</td>
<td>N/A</td>
</tr>
<tr>
<td>5a. Credits/CEUs</td>
<td>3.0</td>
<td>5b. Contact Hours (Lecture + Lab)</td>
<td>(3+0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Complete Course Title</td>
<td>Intermediate Microeconomics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abbreviated Title for Transcript (30 character)</td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>7. Type of Course</td>
<td>☒ Academic</td>
<td>☐ Preparatory/Development</td>
<td>☐ Non-credit</td>
<td>☐ CEU</td>
<td>☐ Professional Development</td>
</tr>
<tr>
<td>8. Type of Action:</td>
<td>☐ Add</td>
<td>☒ Change</td>
<td>☐ Delete</td>
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<td></td>
</tr>
<tr>
<td>If a change, mark appropriate boxes:</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>☐ Prefix</td>
<td>☐ Course Number</td>
<td>☐ Credits</td>
<td>☐ Contact Hours</td>
<td>☐ Grade</td>
<td>☐ Repeat Status</td>
</tr>
<tr>
<td>☐ Grading Basis</td>
<td>☐ Cross-Listed/Stacked</td>
<td>☐ Title</td>
<td>☐ Registration Restrictions</td>
<td>☐ Credits</td>
<td>☐ Title</td>
</tr>
<tr>
<td>☐ Test Score Prerequisites</td>
<td>☐ Co-requisites</td>
<td>☐ Other Restrictions</td>
<td>☐ Registration Restrictions</td>
<td>☐ Class</td>
<td>☐ Major</td>
</tr>
<tr>
<td>☐ Other Restrictions</td>
<td>☐ Registration Restrictions</td>
<td>☐ Other Update CCG (please specify)</td>
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</tr>
<tr>
<td>9. Repeat Status No</td>
<td>☐ # of Repeats</td>
<td>☐ Max Credits</td>
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<tr>
<td>10. Grading Basis</td>
<td>☒ A-F</td>
<td>☐ P/NP</td>
<td>☐ NG</td>
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<tr>
<td>11. Implementation Date</td>
<td>☐ semester/year</td>
<td>From: Spring/2014</td>
<td>To: 9999</td>
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<tr>
<td>12. ☐ Cross Listed with</td>
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<tr>
<td>☐ Stacked with</td>
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</tr>
<tr>
<td>Cross-Listed Coordination Signature</td>
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<td></td>
</tr>
<tr>
<td>13a. Impacted Courses or Programs:</td>
<td>List any programs or college requirements that require this course.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<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></td>
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</tr>
<tr>
<td>Impacted Program/Course</td>
<td>Date of Coordination</td>
<td>Chair/Coordinator Contacted</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. See attached list</td>
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<tr>
<td>2.</td>
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<tr>
<td>3.</td>
<td></td>
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<tr>
<td>Initiator Name (typed): Jonathan Alevy</td>
<td>Initiator Signed Initials:</td>
<td>Date:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13b. Coordination Email</td>
<td>Date: 04/05/2013</td>
<td></td>
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</tr>
<tr>
<td>submitted to Faculty Listserv: <a href="mailto:uaa-faculty@lists.uaa.alaska.edu">uaa-faculty@lists.uaa.alaska.edu</a></td>
<td></td>
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</tr>
<tr>
<td>13c. Coordination with Library Liaison</td>
<td>Date: 04/05/2013</td>
<td></td>
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<tr>
<td>14. General Education Requirement</td>
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<tr>
<td>Mark appropriate box:</td>
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<tr>
<td>☐ Oral Communication</td>
<td>☐ Written Communication</td>
<td>☐ Quantitative Skills</td>
<td>☐ Humanities</td>
<td></td>
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</tr>
<tr>
<td>☐ Fine Arts</td>
<td>☐ Social Sciences</td>
<td>☐ Natural Sciences</td>
<td>☐ Integrative Capstone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Course Description (suggested length 20 to 50 words)</td>
<td>Analysis of demand and supply under various market structures, consumer and producer theory, factor pricing and theory of distribution, and survey of welfare economics.</td>
<td></td>
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</tr>
<tr>
<td>16a. Course Prerequisite(s) (list prefix and number or test code and score)</td>
<td>(ECON A201 and ECON A202 and (MATH A200 or MATH A272)) with a minimum grade of C</td>
<td></td>
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</tr>
<tr>
<td>16b. Co-requisite(s) (concurrent enrollment required)</td>
<td>N/A</td>
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<td></td>
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</tr>
<tr>
<td>16c. Other Restriction(s)</td>
<td>☐ College</td>
<td>☐ Major</td>
<td>☐ Class</td>
<td>☐ Level</td>
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<tr>
<td>16d. Registration Restriction(s) (non-codable)</td>
<td>N/A</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>17. ☒ Mark if course has fees Standard CBPP computer lab fee</td>
<td></td>
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<tr>
<td>18. ☐ Mark if course is a selected topic course</td>
<td></td>
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<tr>
<td>19. Justification for Action</td>
<td>Update course description, prerequisites, textbooks, bibliography, outline, instructional goals, and student learning outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Initiator (faculty only) | Jonathan Alevy | Date: |
| Approved | | Dean/Director of School/College | Date: |
| Disapproved | | |

Initiator (TYPE NAME) | | |
| Approved | | Undergraduate/Graduate Academic | Date: |
| Disapproved | | Board Chair | Date: |
| Approved | | |
| Disapproved | | Provost or Designee | Date: |
| Approved | | |


13a. Impacted courses or programs ECON A321

<table>
<thead>
<tr>
<th>Impacted program/course</th>
<th>Date of Coordination</th>
<th>Chair/coordinator contacted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics, BBA</td>
<td>03/29/2013</td>
<td>Ed Forrest</td>
</tr>
<tr>
<td>Economics, BA</td>
<td>03/29/2013</td>
<td>Paul Johnson</td>
</tr>
<tr>
<td>Natural Sciences, Environmental Sciences Option, BS</td>
<td>04/08/2013</td>
<td>Fred Rainey</td>
</tr>
<tr>
<td>ECON A429</td>
<td>03/29/2013</td>
<td>Paul Johnson</td>
</tr>
<tr>
<td>ECON A435</td>
<td>03/29/2013</td>
<td>Paul Johnson</td>
</tr>
<tr>
<td>ECON A459</td>
<td>03/29/2013</td>
<td>Paul Johnson</td>
</tr>
<tr>
<td>ECON A492</td>
<td>03/29/2013</td>
<td>Paul Johnson</td>
</tr>
</tbody>
</table>
I. Initiation Date: March 29, 2013

II. Course Information
College/School: College of Business and Public Policy
Department: Economics
Program: Bachelor of Arts, Economics; Bachelor of Business Administration, Economics
Course Title: Intermediate Microeconomics
Course Number: ECON A321
Credits: 3
Contact Hours: 3 per week x 15 weeks = 45 hours
6 to 9 hours outside of class per week x 15 weeks = 90 to 135 hours
Grading Basis: A-F
Course Description: Analysis of demand and supply under various market structures, consumer and producer theory, factor pricing and theory of distribution, and survey of welfare economics.
Prerequisites: [ECON A201 and ECON A202 and (MATH A200 or MATH A272)] with a minimum grade of C.
Registration Restrictions: N/A
Fees: Standard CBPP computer lab fee

III. Course Activities
A. Lectures
B. Discussions
C. In-class exercises

IV. Course Level Justification
This upper-division course builds upon 200-level economics foundational courses.

V. Outline
A. Theory of Consumer Behavior.
B. Theory of The Firm
C. Market Structure
D. Asymmetric Information
E. General Equilibrium
F. Welfare Theory
G. Behavioral Economics

VI. Suggested Texts


VII. Bibliography


VIII. Instructional Goals and Student Learning Outcomes

<table>
<thead>
<tr>
<th>A. Instructional Goals.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The instructor will:</td>
</tr>
<tr>
<td>1. Present standard theoretical models of microeconomic theory.</td>
</tr>
<tr>
<td>2. Demonstrate standard solution techniques to optimization problems.</td>
</tr>
<tr>
<td>3. Demonstrate game theoretic approaches to strategic problems.</td>
</tr>
<tr>
<td>4. Compare and contrast alternate views of social choice.</td>
</tr>
<tr>
<td>5. Discuss applications of standard microeconomic models.</td>
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</tr>
<tr>
<td>1.</td>
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<tr>
<td>2.</td>
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<tr>
<td>3.</td>
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<tr>
<td>4.</td>
</tr>
<tr>
<td>5.</td>
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</tbody>
</table>
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>CB CBPP</td>
<td>ADBP Division of Business Programs</td>
<td>CIS</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>
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</thead>
<tbody>
<tr>
<td>CIS</td>
<td>A360</td>
<td>N/A</td>
<td>3</td>
<td>(Lecture + Lab) (3+0)</td>
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6. Complete Course Title
Object-Oriented Programming in .Net
OOP in .Net

<table>
<thead>
<tr>
<th>Abbreviated Title for Transcript (30 character)</th>
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</thead>
<tbody>
<tr>
<td>Object-Oriented Programming in .Net</td>
</tr>
</tbody>
</table>

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
- Cross-Listed/Stacked
- Course Description
- Course Prerequisites
- Test Score Prerequisites
- Co-requisites
- Registration Restrictions
- Class
- Level
- College
- Major
- (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/2014
- To: 9999

12. Cross Listed
- ☑ with
- ☐ Stacked

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>Management Information Systems, BBA</td>
<td>2/21/2013</td>
<td>Minnie Yen</td>
<td></td>
</tr>
<tr>
<td>Computer Information Systems, Minor</td>
<td>2/21/2013</td>
<td>Minnie Yen</td>
<td></td>
</tr>
</tbody>
</table>

13b. Coordinator Email
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison
Date: 03/22/2013

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)

16a. Course Prerequisite(s) (list prefix and number)
CIS A210 and CIS A305 and (CIS A330 or concurrent enrollment) and CIS A376.

16b. Test Score(s)
- N/A

16c. Co-requisite(s) (concurrent enrollment required)
- N/A

16d. Other Restriction(s)
- ☑ College
- ☐ Major
- ☐ Class
- ☐ Level

16e. Registration Restriction(s) (non-codable)
College of Business & Public Policy majors must be admitted to upper-division standing.

17. ☑ Mark if course has fees
Standard CBPP computer lab fee

18. ☑ Mark if course is a selected topic course

19. Justification for Action
Course material is now being covered in other CIS courses.
<table>
<thead>
<tr>
<th>Role</th>
<th>Initator</th>
<th>Approval Status</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiator (faculty only)</td>
<td>Dennis Drinka</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Initiator (TYPE NAME)</td>
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<td></td>
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<tr>
<td>Initiator (Dean/Director of School/College)</td>
<td></td>
<td>Approved/Disapproved</td>
<td>Date</td>
</tr>
<tr>
<td>Department Chairperson</td>
<td>Disapproved</td>
<td></td>
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</tr>
<tr>
<td>Curriculum Committee Chairperson</td>
<td>Disapproved</td>
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<tr>
<td>Undergraduate/Graduate Academic Board Chairperson</td>
<td></td>
<td>Approved/Disapproved</td>
<td>Date</td>
</tr>
<tr>
<td>Provost or Designee</td>
<td></td>
<td>Approved/Disapproved</td>
<td>Date</td>
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</tbody>
</table>
1. **School or College**
   - CB CBPP

2. **Course Prefix**
   - CIS

3. **Course Number**
   - A460

4. **Previous Course Prefix & Number**
   - N/A

5. **Credits/CEUs**
   - 3

6. **Contact Hours**
   - (Lecture + Lab) (3+0)

7. **Complete Course Title**
   - Web Development in the .Net Environment
   - Web Development in .NET

8. **Type of Course**
   - Academic

9. **Repeat Status No**
   - # of Repeats
   - Max Credits

10. **Grading Basis**
    - A-F
    - P/NP
    - NG

11. **Implementation Date**
    - semester/year
    - From: Spring/2014
    - To: /9999

13a. **Impacted Courses or Programs**
    - List any programs or college requirements that require this course.

15. **Course Description**
    - Development of data-driven web applications within the .Net environment. Uses ASP.Net and C# as the development environment.
    - Special note: Assumes previous programming experience with HTML and CSS.

16a. **Course Prerequisite(s)**
    - (list prefix and number)
    - [CIS A210 and (CIS A250 or CIS A350 or JPC A345) and CIS A376] 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)**
    - College
    - Major
    - Class
    - Level

17. **Mark if course has fees**
    - Standard CBPP computer lab fee

18. **Mark if course is a selected topic course**

19. **Justification for Action**
    - Changed prerequisites and course description. Updated bibliography and recommended textbooks.
Initiator (faculty only)                        Date  
Dennis Drinka  
Initiator (TYPE NAME)  

<table>
<thead>
<tr>
<th>Approved</th>
<th>Disapproved</th>
</tr>
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<tbody>
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</table>

Dean/Director of School/College                        Date  

<table>
<thead>
<tr>
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<th>Disapproved</th>
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Department Chairperson                        Date  

<table>
<thead>
<tr>
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</table>

Undergraduate/Graduate Academic Board Chairperson                        Date  

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<tr>
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<th>Disapproved</th>
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<tbody>
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</table>

Curriculum Committee Chairperson                        Date  

<table>
<thead>
<tr>
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<th>Disapproved</th>
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</thead>
<tbody>
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<td></td>
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</table>

Provost or Designee                        Date  

<table>
<thead>
<tr>
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<th>Disapproved</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
I. Date Initiated  
April 23, 2013

II. Course Information  
College/School: College of Business and Public Policy  
Department: Computer Information Systems  
Program: Bachelor of Business Administration, Management Information Systems; Computer Information Systems, Minor  
Course Title: Web Development in the .Net Environment  
Course Number: CIS A460  
Credits: 3.0  
Contact Hours: 3 per week x 15 weeks = 45 hours  
0 lab hours  
Approximately 6-10 hours outside of class per week x 15 weeks = 90 - 150 hours  
Grading Basis: A - F  
Course Description: Development of data-driven web applications within the .Net environment. Uses ASP.Net and C# as the development environment.  
Special note: Assumes previous programming experience with HTML and CSS.  
Course Prerequisites: [CIS A210 and (CIS A250 or CIS A350 or JPCA 345) and CIS A376] with a minimum grade of C.  
Registration Restrictions: College of Business and Public Policy majors must be admitted to upper-division standing.  
Fees: Standard CBPP computer lab fee

III. Course Activities  
A. Lectures  
B. Programming exercises  
C. Project walk-throughs

IV. Guidelines for Evaluation  
A. Exams  
B. Cases  
C. Independent research project

V. Course Level Justification  
Integrates knowledge and skills learned in lower-level courses with advanced tools and web development concepts to solve complex problems.
VI. **Outline**

A. Overview of the ASP.Net Framework

B. Basic Controls
   1. Standard controls
   2. Validation controls
   3. Rich controls

C. Navigation
   1. Master Pages
   2. Navigation controls
   3. Site Maps
   4. Menus

D. Database
   1. ADO.Net
   2. Data binding
   3. Data sources
      a) XmlDataSource
      b) SqlDataSource
   4. Database Controls
      a) List controls
      b) GridView control
      c) DetailsView and FormView controls
      d) Repeater and DataList controls
      e) ListView and DataPager controls

E. Security
   1. Login controls
   2. ASP.Net Membership

F. Maintaining Application State
   1. Cookies
   2. Session variables and Application variables
   3. Profiles

G. AJAX

VII. **Suggested Texts**


VIII. Bibliography


IX. Instructional Goals and Student Learning Outcomes

A. Instructional Goals.
The instructor will:

1. Introduce students to the ASP.Net development environment
2. Prepare students for developing data-driven web applications using ASP.Net controls
3. Guide students through the development of a comprehensive web application project

B. Student Learning Outcomes.

<table>
<thead>
<tr>
<th>Students will be able to:</th>
<th>Assessment Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Build static web forms</td>
<td>Cases and exams</td>
</tr>
<tr>
<td>2. Validate data entry values</td>
<td>Cases and exams</td>
</tr>
<tr>
<td>3. Design and develop web page navigation</td>
<td>Cases and exams</td>
</tr>
<tr>
<td>4. Connect controls to data sources</td>
<td>Cases and exams</td>
</tr>
<tr>
<td>5. Design and develop data-driven web pages</td>
<td>Cases and exams</td>
</tr>
<tr>
<td>6. Design and develop database administration web pages</td>
<td>Cases and exams</td>
</tr>
<tr>
<td>7. Preserve session state values</td>
<td>Cases and exams</td>
</tr>
<tr>
<td>8. Develop authentication and authorization security for resource access</td>
<td>Cases and exams</td>
</tr>
<tr>
<td>9. Demonstrate the use of AJAX tools</td>
<td>Independent research project</td>
</tr>
</tbody>
</table>
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>CB CBPP</th>
<th>1b. Division</th>
<th>ADBP Division of Business Programs</th>
<th>1c. Department</th>
<th>BA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Course Prefix</td>
<td>BA</td>
<td>3. Course Number</td>
<td>A427</td>
<td>4. Previous Course Prefix &amp; Number</td>
<td>N/A</td>
</tr>
<tr>
<td>5a. Credits/CEUs</td>
<td>3</td>
<td>5b. Contact Hours (Lecture + Lab)</td>
<td>(3+0)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. Complete Course Title
International Finance
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
- [ ] Grade
- [ ] Grade Basis
- [ ] Repeat Status
- [ ] Grading Basis
- [ ] Cross-Listed/Stacked
- [ ] Course Description
- [ ] Course Prerequisites
- [ ] Test Score Prerequisites
- [ ] Co-requisites
- [ ] Other Restrictions
- [ ] Registration Restrictions
- [ ] Class
- [ ] Level
- [ ] College
- [ ] Major
- [ ] Other Update 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/2014 To: /1999

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)</th>
<th>Date of Coordination</th>
<th>Chair/Coordinator Contacted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Finance, Investment Concentration, BBA</td>
<td>140</td>
<td>04/05/2013</td>
<td>Ed Forrest</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): Nalinaksha Bhattachayrra
Initiator Signed Initials: _________ Date: __________

13b. Coordination Email
Date: 04/05/2013
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison
Date: 04/05/2013

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)
Covers foreign exchange determination and forecasting; foreign exchange, translation and transaction risks; hedging and speculation; international portfolio diversification and direct foreign investment; international acquisitions; and international taxation.

16a. Course Prerequisite(s) (list prefix and number)
BA A325 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)
- [ ] College
- [ ] Major
- [ ] Class
- [ ] Level

16e. Registration Restriction(s) (non-codable)
College of Business and Public Policy majors must be admitted to upper-division standing.

17. [ ] Mark if course has fees

18. [ ] Mark if course is a selected topic course

19. Justification for Action
Update prerequisite, textbook, and bibliography

Initiator (faculty only)
Nalinaksha Bhattachayrra
Initiator (TYPE NAME)

Initiator (faculty only)
Nalinaksha Bhattachayrra
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. Date Initiated  
   April 5, 2013

II. Course Information
   College/School: College of Business and Public Policy
   Department: Business Administration
   Program: Bachelor of Business Administration in Finance, Investment Concentration
   Course Title: International Finance
   Course Number: BA A427
   Credits: 3
   Contact Hours: 3 per week x 15 weeks = 45 hours
   0 lab hours
   6 hours outside of class per week x 15 weeks = 90 hours
   Grading Basis: A – F
   Course Description: Covers foreign exchange determination and forecasting; foreign exchange, translation and transaction risks; hedging and speculation; international portfolio diversification and direct foreign investment; international acquisitions; and international taxation.
   Prerequisites: BA A325 with a minimum grade of C
   Registration Restrictions: CBPP majors must be admitted to upper-division standing.
   Fees: Standard CBPP computer lab fee

III. Course Activities
   A. Lectures
   B. Discussions
   C. Guest lecturers
   D. Presentations

IV. Course Level Justification
   This is an advanced survey of global finance that requires integration of knowledge acquired in 200- and 300-level courses.
V. Outline
   A. Exchange Rate Determination and Forecasting
   B. Foreign Exchange Risk and Hedging
   C. Transaction Risk and Hedging
   D. Translation Risk and Hedging
   E. International Portfolio Diversification
   F. Direct Foreign Investment
   G. International Mergers, Acquisitions, and Alliances
   H. International Taxation

VI. Suggested Text

VII. Bibliography


Useful information on financial institutions is available on following websites.

http://news.ft.com/home/us
http://online.barrons.com/public/us
http://online.wsj.com/public/us
http://www.amex.com
http://www.businessweek.com
http://www.forbes.com
http://www.fortune.com/fortune
VIII. Instructional Goals and Student Learning Outcomes

A. Instructional Goals
   The instructor will:

   1. Explain international parities and exchange rate forecasting
   2. Discuss exchange rate risk and hedging techniques
   3. Discuss transaction risk and hedging techniques
   4. Discuss translation risk and hedging techniques
   5. Illustrate international portfolio diversification methods
   6. Explain direct foreign investment
   7. Discuss international mergers, acquisitions, and alliances
   8. Describe international taxation

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. Forecast exchange rates</td>
<td>Exam, homework, or quiz</td>
</tr>
<tr>
<td>2. Hedge exchange rate risk</td>
<td>Exam or homework</td>
</tr>
<tr>
<td>3. Hedge transaction rate risk</td>
<td>Exam or homework</td>
</tr>
<tr>
<td>4. Hedge translation rate risk</td>
<td>Exam or homework</td>
</tr>
<tr>
<td>5. Demonstrate an understanding of the international portfolio</td>
<td>Exam, homework, or quiz</td>
</tr>
<tr>
<td>diversification</td>
<td></td>
</tr>
<tr>
<td>6. Analyze direct foreign investment</td>
<td>Exam or homework</td>
</tr>
<tr>
<td>7. Analyze international mergers, acquisitions, and alliances</td>
<td>Exam, homework, and quiz</td>
</tr>
<tr>
<td>8. Minimize global tax liability</td>
<td>Exam, homework, and quiz</td>
</tr>
</tbody>
</table>
1a. School or College
   CB CBPP

1b. Division
   ADBP Division of Business Programs

1c. Department
   BA

2. Complete Program Title/Prefix
   Bachelor of Business Administration, Marketing

3. Type of Program
   Choose one from the appropriate drop down menu:
   Undergraduate: or Graduate: CHOOSE ONE

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

5. Implementation Date (semester/year)
   From: Spring/2014 To: /9999

6a. Coordination with Affected Units
   Department, School, or College: CBPP, BA
   Initiator Name (typed): Ed Forrest
   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
   The field of marketing is experiencing significant change as result of the tremendous growth in social media. The CBPP is changing the core courses to ensure that students graduate with social media skills desired by today's employers.

   ______________________________________          ___________________________
   Initiator (faculty only)         Date
   Ed Forrest
   Initiator (TYPE NAME)

   □ Approved                             □ Disapproved
   □ Approved                             □ Disapproved
   □ Approved                             □ Disapproved
   □ Approved                             □ Disapproved
Note: Students planning to go on to a BBA degree must have a grade of C or better in all business courses.

Bachelor of Business Administration

Major areas: Economics
Finance
Global Logistics and Supply Chain Management
Management
Marketing

The Bachelor of Business Administration (BBA) is a professional degree offered through the College of Business and Public Policy. The curriculum for the BBA degree is management-oriented, rather than highly specialized. It emphasizes concepts relevant to small and large firms and both public and private sector organizations. The five majors -- Economics, Finance, Global Logistics and Supply Chain Management, Management, and Marketing -- prepare students to pursue meaningful and rewarding careers in management. Local, state, national, and international firms, as well as not-for-profit organizations, provide a ready market for graduates in each of the five major areas of concentration.

Admission Requirements

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, Academic Standards and Regulations.

Admission Requirements to Upper Division Courses

1. Completion of at least 39-40 credits with a cumulative GPA of 2.25 or higher.
2. Completion of each of the following courses with a grade of C or better:
   - ACCT A201  Principles of Financial Accounting  3
   - ACCT A202  Principles of Managerial Accounting  3
   - BA A273  Introduction to Statistics for Business and Economics  3
   - CIS A110  Computer Concepts in Business  3
   - CIS A280  Managerial Communications  3
   - ECON A201  Principles of Macroeconomics  3
   - ECON A202  Principles of Microeconomics  3
   - ENGL A111  Methods of Written Communication  3
   - ENGL A212  Technical Writing  3
   - MATH A107  College Algebra (4) 3-4  or
   - MATH A172  Applied Finite Mathematics (3)
   - Oral Communication Skills GER  3
     - COMM A111  Fundamentals of Oral Communication (3)
     - or
     - COMM A241  Public Speaking (3)
3. Completion of any combination of at least 9 credits in the following General Education disciplinary areas:  9
   - Fine Arts
   - Humanities
   - Natural Sciences
Admission to Upper Division Status

BBA students in Economics, Finance, Global Logistics and Supply Chain Management, Management, and Marketing who do not meet the above standards may not take upper division courses in ACCT, BA, CIS, or LOG.

Other students who meet course prerequisites may take up to 15 upper division ACCT, BA, CIS, and LOG credits without being formally admitted to a BBA program. All students must apply for admission to a BBA program before accumulating more than 15 such credits. Please contact the Student Information Office for assistance in applying for admission to upper division standing within the College of Business and Public Policy.

Conditional Admission to Upper Division Status

A student classified as being conditionally admitted to upper division status may take upper division ACCT, BA, CIS, and LOG courses for one semester only, while completing lower division requirements.

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 Business and Public Policy Requirements

Economics, Finance, Management, Global Logistics and Supply Chain Management and Marketing Majors

Students earning a BBA degree must complete at least 50 percent of their required business credits at the University of Alaska Anchorage. All ACCT, BA, CIS, ECON, LGOP and LOG courses are considered business credits for the purpose of this requirement.

1. Complete the Business core requirements. The following courses must be completed with a C or better:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT A201*</td>
<td>Principles of Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT A202</td>
<td>Principles of Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BA/JUST A241</td>
<td>Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>BA A273</td>
<td>Introduction to Statistics for</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Business and Economics</td>
<td></td>
</tr>
<tr>
<td>CIS A110</td>
<td>Computer Concepts in Business</td>
<td>3</td>
</tr>
<tr>
<td>CIS A280</td>
<td>Managerial Communications</td>
<td>3</td>
</tr>
<tr>
<td>ECON A201</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON A202</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ENGL A212</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>MATH A107</td>
<td>College Algebra (4)</td>
<td>3-4</td>
</tr>
<tr>
<td>MATH A172</td>
<td>Applied Finite Mathematics (3)</td>
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<tr>
<td>MATH A200</td>
<td>Calculus I (4)</td>
<td>3-4</td>
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<tr>
<td>MATH A272</td>
<td>Applied Calculus (3)</td>
<td></td>
</tr>
</tbody>
</table>

*The ACCT A101 Principles of Financial Accounting I and ACCT A102 Principles of Financial Accounting II sequence may be used to satisfy the ACCT A201 requirement for this degree.

Note: Students who plan to attend graduate school are encouraged to take MATH A107 and MATH A200 instead of MATH A172 and MATH A272. MATH A108 Trigonometry is a prerequisite for MATH A200.
2. Complete these upper division core courses. The following courses must be completed with a C or better prior to graduating:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA A300</td>
<td>Organizational Theory and Behavior</td>
<td>3</td>
</tr>
<tr>
<td>BA A325</td>
<td>Corporate Finance</td>
<td>3</td>
</tr>
<tr>
<td>BA A343</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BA A377</td>
<td>Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>BA A462</td>
<td>Strategic Management</td>
<td>3</td>
</tr>
<tr>
<td>CIS A376</td>
<td>Management Information Systems</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>(GER Integrative Capstone)</td>
<td></td>
</tr>
</tbody>
</table>

C. Major Requirements

**Economics Major**

1. Complete the following requirements. The following courses must be completed with a C or better prior to graduating:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON A312</td>
<td>Econometrics for Business and Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECON A321</td>
<td>Intermediate Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON A324</td>
<td>Intermediate Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON A492</td>
<td>Seminar in Economic Research</td>
<td>3</td>
</tr>
<tr>
<td>Upper division Economics electives*</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

*Note: No more than a total of 6 credits earned in an independent study, or ECON A454 Economics Internship, may be used to satisfy requirements for the major (6 credits of independent study or 3 credits of independent study and 3 credits of ECON A454).

2. A total of 120 credits is required for the degree, of which a minimum of 45 credits must be upper division.

**Finance Major**

All courses must be completed with a C or better prior to graduating.

1. **Investment Concentration (30 credits)**
   
   a. Complete the following:
      
      | Course Code   | Course Title                             | Credits |
      |---------------|------------------------------------------|---------|
      | BA/JUST A242  | Business Law II                          | 3       |
      | BA A375       | Statistics for Business and Economics    | 3       |
      |               | or                                       |         |
      | ECON A312     | Econometrics for Business and Economics  | 3       |
      |               | or                                       |         |
      | ECON A429     | Business Forecasting                     | 3       |
      | BA A380       | Investment Management                    | 3       |
      | BA A385       | Advanced Corporate Finance               | 3       |
   
   b. Complete at least 12 credits from the following: 12-18
      
      | Course Code   | Course Title                             | Credits |
      |---------------|------------------------------------------|---------|
      | BA A426       | Financial Institutions                   | 3       |
      | BA A427       | International Finance                    | 3       |
      | BA A451       | Advanced Investment Strategies           | 3       |
      | BA A452       | Financial Derivatives                    | 3       |
      | BA A453       | Bond Market Analysis                     | 3       |
      | BA A491A      | Student Managed Portfolio                 | 3       |
   
   c. Complete 0 to 6 credits of upper division business electives. 0-6

2. **Real Estate and Property Management Concentration (30 credits)**
   
   a. Complete the following:
BA A131     Personal Finance     3  
BA/JUST A242   Business Law II     3  
BA A306     Real Estate Principles     3  
BA A315     Property Management and  
            Marketing     3  
BA A320     Real Estate Finance     3  

b. Complete at least 9 credits from the following: 9-15
BA A385     Advanced Corporate Finance (3)  
BA A395     Property Management Internship (3)  
BA A426     Financial Institutions (3)  
BA A431     Real Estate Appraisal (3)  
BA A432     Real Estate Law (3)  

c. Complete 0 to 6 credits upper division business  
electives 0-6

3. A total of 120 credits is required for the degree, of which a minimum of 45 credits must be upper division.

**Global Logistics and Supply Chain Management Major**

1. Complete the following requirements. The following courses must be completed with a grade of C or better prior to  
   graduating:

   LOG A378     Foundations of Logistics and  
            Supply Chain Management     3  
   LOG A379     Transportation Management     3  
   LOG A415     Purchasing Management     3  
   LOG A416     International Logistics and  
            Transportation Management     3  
   LOG A417     Materials Management     3  

2. Complete LOG A495 Internship in Global Logistics  
   and Supply Chain Management*     3  

   *The internship is intended to be in logistics and/or supply chain management. This requirement may be waived if the major advisor  
determines that the student already has significant logistics work experience. If waived, the student will need to select 3 additional  
upper division credits to total 45.

3. Complete 9 credits of upper division program electives approved by the student’s advisor with a grade of C or  
better. These may include, but are not limited to the  
following: 9

   ACCT A342     Managerial Cost Accounting (3)  
   ATP A332     Transport Aircraft Systems (3)  
   BA A375     Statistics for Business and Economics (3)  
   BA A420     Marketing Research (3)  
   BA A447     International Marketing (3)  
   BA A487     International Management (3)  
   CIS A310     Analysis of Business Systems (3)  
   CIS A330     Database Management Systems (3)  
   CIS A410     Project Management (3)  
   CIS A489     Systems Design, Development and  
            Implementation (3)  
   ECON A312     Econometrics for Business and Economics (3)  
   ECON A363     International Economics (3)  

25
ECON A429  Business Forecasting (3)

4. A total of 120 credits is required for the degree, of which a minimum of 45 credits must be upper division.

Management Major

1. Complete the following requirements. The following courses must be completed with a C or better prior to graduating:
   - BA A361  Human Resource Management  3
   - BA A461  Negotiations and Conflict Management  3
   - BA A481  Applications in Management  3
   - BA A488  Environment of Business  3
   - BA A489  Entrepreneurship and New Business Planning  3
   - Upper division electives in ACCT, BA, CIS, ECON, or LOG  12

2. A total of 120 credits is required for the degree, of which a minimum of 45 credits must be upper division.

Marketing Major

1. Complete the following requirements. The following courses must be completed with a C or better prior to graduating:
   - BA A381  Consumer Behavior  3
   - BA A420  Marketing Research  3
   - BA A460  Marketing Management  3
   - BA A480  Social Media Marketing  3
   - BA A375  Statistics for Business and Economics (3)  3
   - or
   - ECON A312  Econometrics for Business and Economics (3)
     or
   - ECON A429  Business Forecasting (3)

2. Complete an additional 6 credits of upper division electives in ACCT, BA, CIS, ECON, or LOG with a grade of C or better prior to graduating:  6

   Upper division Business electives recommended:
   - BA A447  International Marketing (3)
   - BA A463  Promotion Management (3)

3. A total of 120 credits is required for the degree, of which a minimum of 45 credits must be upper division.
Note: Students planning to go on to a BBA degree must have a grade of C or better in all business courses.

**Bachelor of Business Administration**

**Major areas:** Economics  
Finance  
Global Logistics and Supply Chain Management  
Management  
Marketing

The Bachelor of Business Administration (BBA) is a professional degree offered through the College of Business and Public Policy. The curriculum for the BBA degree is management-oriented, rather than highly specialized. It emphasizes concepts relevant to small and large firms and both public and private sector organizations. The five majors — Economics, Finance, Global Logistics and Supply Chain Management, Management, and Marketing — prepare students to pursue meaningful and rewarding careers in management. Local, state, national, and international firms, as well as not-for-profit organizations, provide a ready market for graduates in each of the five major areas of concentration.

**Admission Requirements**

Complete the Admission to Baccalaureate Programs Requirements in Chapter 7, Academic Standards and Regulations.

**Admission Requirements to Upper Division Courses**

1. Completion of at least 39-40 credits with a cumulative GPA of 2.25 or higher.
2. Completion of each of the following courses with a grade of C or better:
   - ACCT A201 Principles of Financial Accounting 3
   - ACCT A202 Principles of Managerial Accounting 3
   - BA A273 Introduction to Statistics for Business and Economics 3
   - CIS A110 Computer Concepts in Business 3
   - CIS A280 Managerial Communications 3
   - ECON A201 Principles of Macroeconomics 3
   - ECON A202 Principles of Microeconomics 3
   - ENGL A111 Methods of Written Communication 3
   - ENGL A212 Technical Writing 3
   - MATH A107 College Algebra (4) 3-4 or  
   - MATH A172 Applied Finite Mathematics (3)  
   - Oral Communication Skills GER  
     - COMM A111 Fundamentals of Oral Communication (3)  
     - or  
     - COMM A241 Public Speaking (3)
3. Completion of any combination of at least 9 credits in the following General Education disciplinary areas: 9
   - Fine Arts
   - Humanities
   - Natural Sciences
Admission to Upper Division Status
BBA students in Economics, Finance, Global Logistics and Supply Chain Management, Management, and Marketing who do not meet the above standards may not take upper division courses in ACCT, BA, CIS, or LOG.

Other students who meet course prerequisites may take up to 15 upper division ACCT, BA, CIS, and LOG credits without being formally admitted to a BBA program. All students must apply for admission to a BBA program before accumulating more than 15 such credits. Please contact the Student Information Office for assistance in applying for admission to upper division standing within the College of Business and Public Policy.

Conditional Admission to Upper Division Status
A student classified as being conditionally admitted to upper division status may take upper division ACCT, BA, CIS, and LOG courses for one semester only, while completing lower division requirements.

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 Business and Public Policy Requirements

Economics, Finance, Management, Global Logistics and Supply Chain Management and Marketing Majors

Students earning a BBA degree must complete at least 50 percent of their required business credits at the University of Alaska Anchorage. All ACCT, BA, CIS, ECON, LGOP and LOG courses are considered business credits for the purpose of this requirement.

1. Complete the Business core requirements. The following courses must be completed with a C or better:

   - ACCT A201* Principles of Financial Accounting  3
   - ACCT A202 Principles of Managerial Accounting  3
   - BA/JUST A241 Business Law I  3
   - BA A273 Introduction to Statistics for Business and Economics  3
   - CIS A110 Computer Concepts in Business  3
   - CIS A280 Managerial Communications  3
   - ECON A201 Principles of Macroeconomics  3
   - ECON A202 Principles of Microeconomics  3
   - ENGL A212 Technical Writing  3
   - MATH A107 College Algebra (4)  3-4
     or MATH A172 Applied Finite Mathematics (3)
   - MATH A200 Calculus I (4)  3-4
     or MATH A272 Applied Calculus (3)

   *The ACCT A101 Principles of Financial Accounting I and ACCT A102 Principles of Financial Accounting II sequence may be used to satisfy the ACCT A201 requirement for this degree.

   Note: Students who plan to attend graduate school are encouraged to take MATH A107 and MATH A200 instead of MATH A172 and MATH A272. MATH A108 Trigonometry is a prerequisite for MATH A200.
2. Complete these upper division core courses. The following courses must be completed with a C or better prior to graduating:

- BA A300 Organizational Theory and Behavior 3
- BA A325 Corporate Finance 3
- BA A343 Principles of Marketing 3
- BA A377 Operations Management 3
- BA A462 Strategic Management 3
- CIS A376 Management Information Systems 3
  (GER Integrative Capstone)

C. Major Requirements

Economics Major

1. Complete the following requirements. The following courses must be completed with a C or better prior to graduating:

- ECON A312 Econometrics for Business and Economics 3
- ECON A321 Intermediate Microeconomics 3
- ECON A324 Intermediate Macroeconomics 3
- ECON A492 Seminar in Economic Research 3
- Upper division Economics electives* 12

*Note: No more than a total of 6 credits earned in an independent study, or ECON A454 Economics Internship, may be used to satisfy requirements for the major (6 credits of independent study or 3 credits of independent study and 3 credits of ECON A454).

2. A total of 120 credits is required for the degree, of which a minimum of 45 credits must be upper division.

Finance Major

All courses must be completed with a C or better prior to graduating.

1. Investment Concentration (30 credits)
   a. Complete the following:
      - BA/JUST A242 Business Law II 3
      - BA A375 Statistics for Business and Economics (3) or
      - ECON A312 Econometrics for Business and Economics (3) or
      - ECON A429 Business Forecasting (3)
      - BA A380 Investment Management 3
      - BA A385 Advanced Corporate Finance 3
   b. Complete at least 12 credits from the following: 12-18
      - BA A426 Financial Institutions (3)
      - BA A427 International Finance (3)
      - BA A451 Advanced Investment Strategies (3)
      - BA A452 Financial Derivatives (3)
      - BA A453 Bond Market Analysis (3)
      - BA A491A Student Managed Portfolio (3)
   c. Complete 0 to 6 credits of upper division business electives. 0-6

2. Real Estate and Property Management Concentration (30 credits)
   a. Complete the following:
BA A131 Personal Finance 3
BA/JUST A242 Business Law II 3
BA A306 Real Estate Principles 3
BA A315 Property Management and Marketing 3
BA A320 Real Estate Finance 3

b. Complete at least 9 credits from the following:  9-15
   BA A385 Advanced Corporate Finance (3)
   BA A395 Property Management Internship (3)
   BA A426 Financial Institutions (3)
   BA A431 Real Estate Appraisal (3)
   BA A432 Real Estate Law (3)

c. Complete 0 to 6 credits upper division business electives  0-6

3. A total of 120 credits is required for the degree, of which a minimum of 45 credits must be upper division.

**Global Logistics and Supply Chain Management Major**

1. Complete the following requirements. The following courses must be completed with a grade of C or better prior to graduating:

   LOG A378 Foundations of Logistics and Supply Chain Management 3
   LOG A379 Transportation Management 3
   LOG A415 Purchasing Management 3
   LOG A416 International Logistics and Transportation Management 3
   LOG A417 Materials Management 3

2. Complete LOG A495 Internship in Global Logistics and Supply Chain Management* 3

   *The internship is intended to be in logistics and/or supply chain management. This requirement may be waived if the major advisor determines that the student already has significant logistics work experience. If waived, the student will need to select 3 additional upper division credits to total 45.

3. Complete 9 credits of upper division program electives approved by the student’s advisor with a grade of C or better. These may include, but are not limited to the following:  9

   ACCT A342 Managerial Cost Accounting (3)
   ATP A332 Transport Aircraft Systems (3)
   BA A375 Statistics for Business and Economics (3)
   BA A420 Marketing Research (3)
   BA A447 International Marketing (3)
   BA A487 International Management (3)
   CIS A310 Analysis of Business Systems (3)
   CIS A330 Database Management Systems (3)
   CIS A410 Project Management (3)
   CIS A489 Systems Design, Development and Implementation (3)
   ECON A312 Econometrics for Business and Economics (3)
   ECON A363 International Economics (3)
ECON A429 Business Forecasting (3)

4. A total of 120 credits is required for the degree, of which a minimum of 45 credits must be upper division.

**Management Major**

1. Complete the following requirements. The following courses must be completed with a C or better prior to graduating:
   - BA A361 Human Resource Management 3
   - BA A461 Negotiations and Conflict Management 3
   - BA A481 Applications in Management 3
   - BA A488 Environment of Business 3
   - BA A489 Entrepreneurship and New Business Planning 3
   - Upper division electives in ACCT, BA, CIS, ECON, or LOG 12

2. A total of 120 credits is required for the degree, of which a minimum of 45 credits must be upper division.

**Marketing Major**

1. Complete the following requirements. The following courses must be completed with a C or better prior to graduating:
   - BA A264 Personal Selling 3
   - BA A381 Consumer Behavior 3
   - BA A420 Marketing Research 3
   - BA A460 Marketing Management 3
   - BA A480 Social Media Marketing 3
   - BA A375 Statistics for Business and Economics (3) 3
   - or ECON A312 Econometrics for Business and Economics (3) 3
   - or ECON A429 Business Forecasting (3)

2. Complete an additional 6 credits of upper division electives in ACCT, BA, CIS, ECON, or LOG courses with a grade of C or better prior to graduating: 6

- Upper division Business electives recommended:
  - BA A447 International Marketing (3)
  - BA A463 Promotion Management (3)

3. A total of 120 credits is required for the degree, of which a minimum of 45 credits must be upper division.
**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>
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<td>KP KPC</td>
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<th>2. Course Prefix</th>
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<th>4. Previous Course Prefix &amp; Number</th>
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<td>PRT</td>
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<th>5b. Contact Hours (Lecture + Lab)</th>
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<td>(3+0)</td>
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### 6. Complete Course Title

**Introduction to Process Technology**  
Intro to Process Tech  
Abbreviated Title for Transcript (30 character)

<table>
<thead>
<tr>
<th>7. Type of Course</th>
<th>8. Type of Action:</th>
<th>9. Repeat Status No</th>
<th>10. Grading Basis</th>
</tr>
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<tbody>
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<td>Academic</td>
<td>Add or Change or Delete</td>
<td># of Repeats</td>
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<td>Max Credits</td>
<td>P/NP</td>
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<th>12. Cross Listed with</th>
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<td>Stacked</td>
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<tr>
<td>To: 9999</td>
<td>Cross Listed Coordination Signature</td>
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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>Catalog Page(s) Impacted</th>
<th>Date of Coordination</th>
<th>Chair/Coordinator Contacted</th>
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</thead>
<tbody>
<tr>
<td>3. PRT A130 Process technology I: Equipment</td>
<td>228</td>
<td>1/8/2013</td>
<td>Henry W. Haney</td>
</tr>
</tbody>
</table>

Initiator Name (typed): Henry W. Haney  
Initiator Signed Initials: __________  
Date: __________

13b. Coordination Email  
Date: 1/8/2013  
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison  
Date: 1/8/2013

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)  
Introduction to industrial process operations through an overview of general information, processes, procedures, and equipment.

16a. Course Prerequisite(s) (list prefix and number)  
None

16b. Test Score(s)  
None

16c. Co-requisite(s) (concurrent enrollment required)  
None

16d. Other Restriction(s)  

- College  
- Major  
- Class  
- Level

16e. Registration Restriction(s) (non-codable)  
None

17. Mark if course has fees

18. Mark if course is a selected topic course

19. Justification for Action  
Update curriculum to reflect current technology, add course fees and coordinate course with other courses within the program...

Initiator (faculty only)  
Date: __________

Henry W. Haney  
Initiator (TYPE NAME)

Initiator (faculty only)  
Date: __________

Henry W. Haney  
Initiator (TYPE NAME)

<table>
<thead>
<tr>
<th>20a. Approval</th>
<th>20b. Disapproved</th>
</tr>
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| Approved      | Dean/Director of School/College  
| Disapproved   | Date |

<table>
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<tr>
<th>20b. Disapproved</th>
<th>20c. Approved</th>
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</table>
| Department Chairperson  
| Date |

<table>
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<th>20c. Approved</th>
<th>20d. Disapproved</th>
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| Board Chairperson  
| Date |

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<tr>
<th>20d. Disapproved</th>
<th>20e. Approved</th>
</tr>
</thead>
</table>
| Provost or Designee  
| Date |
I. Initiation Date: January 8, 2013

II. Course Information
   A. College: Kenai Peninsula College
   B. Course Title: Introduction to Process Technology
   C. Course Subject/Number: PRT A101
   D. Credit: 3.0 credits
   E. Contact Time: 3+0
   F. Grading Information: A-F
   G. Course Description: Introduction to industrial process operation through an overview of general information, processes, procedures, and equipment.
   H. Status of course relative to degree or certificate programs: Required for Process Technology A.A.S. Required for Petroleum Technology Undergraduate Certificate.
   I. Lab Fee: Yes
   J. Coordination: UAA Faculty Listserv, Process Technology and Petroleum Technology.
   K. Course Prerequisite: None
   L. Registration Restrictions: None

III. Course Level Justification
   This course introduces the basic concept of process operations, develops basic skills and provides a foundation for further study of process technology.

IV. Instructional Goals
   The instructor will:
   A. Provide an overview of the process industry.
   B. Introduce students to the basic process principles as they relate to process operations, responsibilities, and required skills.
   D. Explain the classification and function of basic equipment used in the process industry.

V. Student Learning Outcomes

<table>
<thead>
<tr>
<th>The student will be able to:</th>
<th>One or more of the following assessment methods will be used:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Define what process industries do.</td>
<td>Homework and tests</td>
</tr>
<tr>
<td>B. Describe what a process technician does.</td>
<td>Homework and tests</td>
</tr>
<tr>
<td>C. Define what process technology is.</td>
<td>Homework</td>
</tr>
<tr>
<td>D. Explain the different segments of the oil and gas industry.</td>
<td>Homework and tests</td>
</tr>
</tbody>
</table>
E. Write cover letter and resume.  
F. Explain the growth and development of the process industries.  
G. Discuss how physics and chemistry are applied in process industries.  
H. State process industry safety, health, environment, and security issues.  
I. Discuss quality in process industries.  
J. Identify team member characteristics.  
K. Identify drawings used in process industries.  
L. Explain the purpose of equipment used in process industries.  
M. Discuss supportive process systems.  

VI. Course Content Outline  
A. Process technology: an overview  
   1. Oil and gas industry  
   2. Chemical industry  
   3. Mining Industry  
   4. Power generation industry  
   5. Pulp and paper industry  
   6. Water and wastewater treatment industry  
   7. Food and beverage industry  
   8. Pharmaceutical Industry  
B. Cover letter and resume preparation  
C. Basic physics  
D. Basic chemistry  
E. Safety, health, environment and security  
F. Quality  
G. Teams  
H. Process drawings  
I. Process equipment  
   1. Piping and valves  
   2. Vessels  
   3. Pumps  
   4. Compressors  
   5. Turbines  
   6. Electricity and motors  
   7. Shell and tube and fin-fan exchangers  
   8. Cooling towers  
   9. Furnaces, reformers and fired heaters  
  10. Boilers  
  11. Distillation
J. Process utilities
K. Process auxiliaries
L. Instrumentation
M. Process facility tour

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>No Division Code</th>
<th>1c. Department</th>
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<td>3. Course Number</td>
<td>A110</td>
<td>4. Previous Course Prefix &amp; Number</td>
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<td>5b. Contact Hours</td>
<td>(Lecture + Lab)</td>
<td>(3+0)</td>
<td></td>
</tr>
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</table>

6. Complete Course Title
Introduction to Process Safety/Health/Environmental Awareness
Intro Process SHE Awareness

7. Type of Course
- [ ] Academic
- [ ] Preparatory/Development
- [ ] Non-credit
- [ ] CEU
- [ ] Professional Development

8. Type of Action:
- [ ] Add
- [ ] Change
- [ ] Delete

9. Repeat Status No

<table>
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<tr>
<th># of Repeats</th>
<th>Max Credits</th>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

10. Grading Basis
- [ ] A-F
- [ ] P/NC
- [ ] NG

11. Implementation Date
- From: Fall/2013
- To: /9999

12. Cross Listed with
- [ ] Stacked with

13a. Impacted Courses or Programs:
List any programs or college requirements that require this course.

13b. Coordination Email
Date: 1/8/2013
Submit to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison
Date: 1/8/2013

14. General Education Requirement
Mark appropriate box:
- [ ] Oral Communication
- [ ] Written Communication
- [ ] Quantitative Skills
- [ ] Social Sciences
- [ ] Natural Sciences
- [ ] Integrative Capstone

15. Course Description (suggested length 20 to 50 words)
Introduction to safety, health, and environmental awareness within the process industry. Examines types of hazards, applicable government regulations, plus current industry standards and practices. Analyzes the potential for harm to an individual and to the environment due to unsafe conditions. Covers various types of preventative procedures, systems and equipment.

16a. Course Prerequisite(s) (list prefix and number)
None

16b. Test Score(s)
None

16c. Co-requisite(s) (concurrent enrollment required)
None

16d. Other Restriction(s)
- [ ] Level
- [ ] College
- [ ] Major
- [ ] Class

16e. Registration Restriction(s) (non-codable)
None

17. Mark if course has fees
- [ ]

18. Mark if course is a selected topic course
- [ ]

19. Justification for Action
Update curriculum to reflect current technology and to coordinate course with other courses in the program.

<table>
<thead>
<tr>
<th>Initiator (faculty only)</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Henry W. Haney</td>
<td></td>
</tr>
</tbody>
</table>

Initiator (TYPE NAME)

---

Approved

Disapproved

Dean/Director of School/College

Department Chairperson

Curriculum Committee Chairperson

Board Chairperson

Provost or Designee

---

36
**University of Alaska Anchorage**  
**Kenai Peninsula College**  
**Course Content Guide**

I. **Initiation Date:** January 8, 2013

II. **Course Information**
   A. **College:** Kenai Peninsula College
   B. **Course Title:** Introduction to Process Safety/Health/Environmental Awareness
   C. **Course Subject/Number:** PRT A110
   D. **Credit:** 3.0 credits
   E. **Contact Time:** 3+0 credits
   F. **Grading Information:** A-F
   G. **Course Description:** Introduction to safety, health, and environmental awareness within the process industry. Examines types of hazards, applicable government regulations, plus current industry standards and practices. Analyzes the potential for harm to an individual and to the environment due to unsafe conditions. Covers various types of preventative procedures, systems and equipment.
   H. **Status of course relative to degree or certificate programs:** Required for Process Technology A.A.S.
   I. **Lab Fee:** No
   J. **Coordination:** UAA Faculty Listserv and Process Technology.
   K. **Course Prerequisite:** None
   L. **Registration Restrictions:** None

III. **Course Level Justification**
   This course introduces the basic concepts of safety, health and environmental awareness in industrial process operations.

IV. **Instructional Goals**
   The instructor will:
   A. Explain the health and safety issues associated with the process industry and the potential implications for individuals and the environment.
   B. Explain the preventative procedures, systems, and controls used in the process industry.
   D. Explain and demonstrate the use of the personal protective equipment used in the process industry.
   D. Explain and demonstrate the safe use of various hand-tools commonly used in the process industry.
   E. Discuss the applicable government regulations and industry standards.
## V. Student Learning Outcomes

<table>
<thead>
<tr>
<th>The student will be able to:</th>
<th>One or more of the following assessment methods will be used:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Demonstrate behaviors that are critical to avoid personal injury, injury to others,</td>
<td>Homework and tests</td>
</tr>
<tr>
<td>damage to equipment, or harm to the environment.</td>
<td></td>
</tr>
<tr>
<td>B. Identify agents and conditions that can present potential safety and health hazards in</td>
<td>Homework and tests</td>
</tr>
<tr>
<td>process industries.</td>
<td></td>
</tr>
<tr>
<td>C. Identify specific hazards found in the process industries and the potential safety</td>
<td>Homework</td>
</tr>
<tr>
<td>and health hazards posed by them.</td>
<td></td>
</tr>
<tr>
<td>D. Explain routes for hazardous chemicals to enter the human body. Describe acute and</td>
<td>Homework and tests</td>
</tr>
<tr>
<td>chronic effects on individual health.</td>
<td></td>
</tr>
<tr>
<td>E. Use MSDS and other resources to obtain key health, safety and environmental information</td>
<td>Homework, group projects and tests</td>
</tr>
<tr>
<td>regarding materials used in process industries.</td>
<td></td>
</tr>
<tr>
<td>F. Identify the selection, use, care and maintenance of personal protective and testing</td>
<td>Homework, group projects and tests</td>
</tr>
<tr>
<td>equipment.</td>
<td></td>
</tr>
<tr>
<td>G. Describe permitting systems found in process industrial operations.</td>
<td>Homework and tests</td>
</tr>
<tr>
<td>H. Select and employ labels and placards to identify the contents of process vessels,</td>
<td>Homework, group projects and tests</td>
</tr>
<tr>
<td>piping, and miscellaneous containers.</td>
<td></td>
</tr>
<tr>
<td>I. Describe analysis techniques to identify potential unsafe work practices and hazards</td>
<td>Homework and tests</td>
</tr>
<tr>
<td>in order to ensure the safety of the workplace.</td>
<td></td>
</tr>
<tr>
<td>J. Identify factors that can lead to leaks, spills, and releases; describe the potential</td>
<td>Homework and tests</td>
</tr>
<tr>
<td>dangers to worker safety and the impact on the environment.</td>
<td></td>
</tr>
<tr>
<td>K. Identify and describe engineering and administrative controls used by process industries</td>
<td>Homework and tests</td>
</tr>
<tr>
<td>to eliminate and to minimize threats to safety, health, and the environment.</td>
<td></td>
</tr>
<tr>
<td>L. Describe the correct use of equipment and systems used to prevent, contain or control</td>
<td>Homework and tests</td>
</tr>
<tr>
<td>emergencies that may occur in process industries.</td>
<td></td>
</tr>
</tbody>
</table>
M. Identify and discuss federal, state, and local regulations as well as industry standards that impact process industries.

VI. Course Content Outline
A. Basic safety principles
B. Introduction to regulatory history
C. Safety laws that affect process industries
   1. OSHA
   2. EPA
D. Administrative controls and programs
   1. Process safety management
   2. Hazard communication
   3. HAZWOPER
   4. Other programs and agencies that regulate industries
E. Introduction to hazard types
   1. Identification and classification of hazards
   2. Material Safety Data Sheets
   3. Routes of entry
   4. Exposure
   5. Potential effects of chemical agents
   6. Hazards associated with pressure and pressurized equipment
F. Personal protective equipment
   1. General: hearing, hand, eye, head, skin
   2. Respiratory
G. Equipment and maintenance safety
   1. Types of equipment hazards
   2. Tools
   3. Material handling: process fluids, chemicals, and pressure devices
   4. Machinery
H. Personal safety
   1. Electrical safety and protection
   2. Falls and fall protection
   3. Vapors, gases and solvents
   4. Other factors that can result in hazards
I. Administrative controls-practices
   1. Permit systems
   2. Lock-out/tag-out
   3. Safe work practices
J. Engineering controls
   1. Alarms and indication systems
   2. Process containment and control systems
   3. Process upset control systems
   4. Mobile testing equipment

Homework and tests
C. Fire prevention, protection and control
D. Spill response practices and equipment
E. Environmental standards

VII. Suggested Text


VIII. Bibliography


*Classic text in 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>
<th>KP KPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1b. Division</td>
<td>No Division Code</td>
</tr>
<tr>
<td>1c. Department</td>
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</tr>
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</table>

<table>
<thead>
<tr>
<th>2. Course Prefix</th>
<th>PRT</th>
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<tbody>
<tr>
<td>3. Course Number</td>
<td>A130</td>
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<td>4. Previous Course Prefix &amp; Number</td>
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<td>5a. Credits/CEUs</td>
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<tr>
<td>5b. Contact Hours</td>
<td>(Lecture + Lab) (4+0)</td>
</tr>
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</table>

**6. Complete Course Title**

Process Technology I: Equipment

**Abbreviated Title for Transcript (30 character)**

Process Tech I: Equipment

**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
- [ ] Contact Hours
- [ ] Grading Basis
- [ ] Repeat Status
- [ ] Course Number
- [ ] Cross-Listed/Stacked
- [ ] Title
- [ ] Course Prerequisites
- [ ] Test Score Prerequisites
- [ ] Other Restrictions
- [ ] Registration Restrictions
- [ ] Class
- [ ] Level
- [ ] College
- [X] Major
- [ ] Other

**9. Repeat Status No**

<table>
<thead>
<tr>
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<th>Max Credits</th>
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**10. Grading Basis**

- [X] A-F
- [ ] P/NP
- [ ] NG

**11. Implementation Date**

From: Fall/2013  
To: /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.

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>Catalog Page(s) Impacted</th>
<th>Date of Coordination</th>
<th>Chair/Coordinator Contacted</th>
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</thead>
<tbody>
<tr>
<td>1. See attached table.</td>
<td></td>
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<tr>
<td>2.</td>
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<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**14. General Education Requirement**

Mark appropriate box:

- [ ] Oral Communication
- [ ] Written Communication
- [ ] Quantitative Skills
- [ ] Social Sciences
- [ ] Humanities
- [ ] Natural Sciences
- [ ] Integrative Capstone

**15. Course Description** *(suggested length 20 to 50 words)*

Examines various types of process equipment through an in-depth analysis of construction, components, and operation. Covers process flows, piping diagrams, economic impact, plus safety and environmental aspects. Surveys preventative maintenance and troubleshooting procedures.

**16. Course Prerequisite(s)** *(list prefix and number)*

<table>
<thead>
<tr>
<th>PRT A101 and MATH A105 or concurrent enrollment</th>
</tr>
</thead>
</table>

**16b. Test Score(s)**

None

**16c. Co-requisite(s)** *(concurrent enrollment required)*

None

**16d. Other Restriction(s)**

<table>
<thead>
<tr>
<th>College</th>
<th>Major</th>
<th>Class</th>
<th>Level</th>
</tr>
</thead>
</table>

**16e. Registration Restriction(s)** *(non-codable)*


**17. Mark if course has fees**

- [X] Yes

**18. Mark if course is a selected topic course**

- [ ] Yes

**19. Justification for Action**

Update curriculum to reflect current technology, update prerequisites, update major restriction, update registration restrictions and coordinate course with other courses within the program.

**Initiator Name (typed): Henry W. Haney**  
**Initiator Signed Initials:** _________

**Date:** ______________

**13b. Coordination Email**

Date: 1/8/2013

submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

**13c. Coordination with Library Liaison**

Date: 1/8/2013

**14. General Education Requirement**

Mark appropriate box:

- [X] Oral Communication
- [ ] Written Communication
- [ ] Quantitative Skills
- [ ] Social Sciences
- [ ] Humanities
- [ ] Natural Sciences
- [ ] Integrative Capstone

**15. Course Description** *(suggested length 20 to 50 words)*

Examines various types of process equipment through an in-depth analysis of construction, components, and operation. Covers process flows, piping diagrams, economic impact, plus safety and environmental aspects. Surveys preventative maintenance and troubleshooting procedures.

**16a. Course Prerequisite(s)** *(list prefix and number)*

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</table>

**16b. Test Score(s)**

None

**16c. Co-requisite(s)** *(concurrent enrollment required)*

None

**16d. Other Restriction(s)**

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**16e. Registration Restriction(s)** *(non-codable)*


**17. Mark if course has fees**

- [X] Yes

**18. Mark if course is a selected topic course**

- [ ] Yes

**19. Justification for Action**

Update curriculum to reflect current technology, update prerequisites, update major restriction, update registration restrictions and coordinate course with other courses within the program.
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<tr>
<th>Role</th>
<th>Approval Status</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>Initiator (faculty only)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Henry W. Haney</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initiator (TYPE NAME)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dean/Director of School/College</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department Chairperson</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate/Graduate Academic Board Chairperson</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curriculum Committee Chairperson</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provost or Designee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impacted Program/Course</td>
<td>Catalog Page(s) Impacted</td>
<td>Date of Coordination</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>--------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>4. Mechanical Technology Undergraduate Certificate</td>
<td>224</td>
<td>1/8/2013</td>
</tr>
</tbody>
</table>

Initiator Name (typed): **Henry W. Haney**  
Initiator Signed Initials: _________  
Date: __________________


I. **Initiation Date:** January 8, 2013

II. **Course Information**
A. **College:** Kenai Peninsula College
B. **Course Title:** Process Technology I: Equipment
C. **Course Subject/Number:** PRT A130
D. **Credit:** 4.0 credits
E. **Contact Time:** 4+0
F. **Grading Information:** A-F
G. **Course Description:** Examines various types of process equipment through an in-depth analysis of construction, components, and operation. Covers process flows, piping diagrams, economic impact, and safety and environmental aspects. Surveys preventative maintenance and troubleshooting procedures.
H. **Status of course relative to degree or certificate programs:** Required for Process Technology A.A.S. Required for Industrial Process Instrumentation A.A.S. Required for Petroleum Technology Certificate. Required for Mechanical Technology Certificate.
I. **Lab Fee:** Yes
J. **Coordination:** UAA Faculty Listserv, Process Technology, Petroleum Technology, Industrial Process Instrumentation and Mechanical Technology.
K. **Course Prerequisite:** PRT A101 and MATH A105 or concurrent enrollment.
L. **Registration Restrictions:** Admitted students in Process Technology A.A.S. major, Industrial Process Instrumentation A.A.S. major, Petroleum Technology Undergraduate Certificate program, Mechanical Technology Undergraduate Certificate program or Instructor permission.

III. **Course Level Justification**
This course introduces basic knowledge through an overview of various types of process equipment and provides a foundation for further study of process technology. This is the first course of a three semester sequence of process technology courses.

IV. **Instructional Goals**
The instructor will:
A. Explain the purpose and application of various types of equipment used within the process industry.
B. Examine individual design characteristics of various types of equipment used in the process industry.
C. Describe piping, tanks and vessels.
D. Describe pumps and compressors.
E. Examine valve designs and applications, including hand valves, automatic valves, safety valves and relief valves.
F. Describe exchangers and cooling towers.
G. Examine tubing, hoses, hose fittings, and explain the use of each as they are used in a process.
H. Use process and piping diagrams to explain process flows through a unit or complete system.
I. Introduce various types of equipment into the classroom for hands-on demonstrations, disassembly and reassembly where applicable to facilitate student familiarity with process equipment and enable them to identify equipment components.

V. Student Learning Outcomes

<table>
<thead>
<tr>
<th>The student will be able to:</th>
<th>One or more of the following assessment methods will be used:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Identify and describe the equipment using appropriate terminology.</td>
<td>Homework, tests and class presentation</td>
</tr>
<tr>
<td>B. Identify the equipment components, and use appropriate terminology to describe.</td>
<td>Homework, tests and class presentation</td>
</tr>
<tr>
<td>C. Describe the basic theory of operation of the equipment.</td>
<td>Homework, tests and class presentation</td>
</tr>
<tr>
<td>D. Describe safe operation of the equipment.</td>
<td>Homework, tests and class presentation</td>
</tr>
<tr>
<td>E. Describe minor maintenance required for effective operation of the equipment.</td>
<td>Homework and tests</td>
</tr>
<tr>
<td>F. Describe the economic impact of effective equipment operation and maintenance.</td>
<td>Homework</td>
</tr>
<tr>
<td>G. Explain basic troubleshooting concepts.</td>
<td>Homework and tests</td>
</tr>
<tr>
<td>H. Describe environmentally responsible operation of the equipment.</td>
<td>Homework and tests</td>
</tr>
</tbody>
</table>

VI. Course Content Outline

A. Tools and introduction to equipment
   1. Overview of equipment common to process industry
   2. Hand tools
   3. Power tools
   4. Lifting equipment

B. Piping, tubing, hoses and fittings
   1. Types and uses
   2. Pressure and temperature limitations
3. Types of materials used
4. Selection and sizing criteria
5. Equipment tests
6. Symbols

C. Valves
1. Types and purpose
2. Operating principles
3. Components and function
4. Process technician’s responsibility in maintenance and repair
5. Safe operation
6. Common operating problems

D. Motors and engines
1. Types and purposes
2. Components
3. Theory of operation
4. Safety hazards and environmental concerns
5. Typical procedures
6. Process technician’s role in maintenance
7. Common operating problems

E. Turbines
1. Types and applications
2. Components
3. Theory of operation
4. Safety hazards and environmental concerns
5. Typical procedures
6. Process technician’s role in operation and maintenance
7. Common operating problems

F. Pumps
1. Types and application
2. Components
3. Theory of operation
4. Seals
5. Safety hazards and environmental concerns
6. Typical procedures
7. Process technician’s role in operation and maintenance
8. Common operating problems

G. Compressors
1. Types and application
2. Components
3. Theory of operation
4. Safety hazards and environmental concerns
5. Typical procedures
6. Process technician’s role in operation and maintenance
7. Common operating problems
H. Special equipment
   1. Purpose and application of each
   2. Major components
   3. Safety hazards and environmental concerns
   4. Typical procedures
   5. Process technician's role in operation and maintenance
   6. Common operating problems
I. Process diagrams

VII. Suggested Texts


VIII. Bibliography


*Classic Text in Field
## Course Action Request

**Proposal to Initiate, Add, Change, or Delete a Course**

**University of Alaska Anchorage**

### 1a. School or College
KP KPC

### 1b. Division
No Division Code

### 1c. Department
Business & Industry

### 2. Course Prefix
PRT

### 3. Course Number
A160

### 4. Previous Course Prefix & Number
None

### 5a. Credits/CEUs
3.0

### 5b. Contact Hours
(3+0)

### 6. Complete Course Title
Oil & Gas Exploration and Production I

### Abbreviated Title for Transcript (30 character)
Oil & Gas Expl & Prodn I

### 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
  - College
  - Major
  - Level
  - (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 /2013
- 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.

#### 13b. Coordination Email

- Date: 1/8/2013
- submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

#### 13c. Coordination with Library Liaison

- Date: 1/8/2013

### 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)


### 16a. Course Prerequisite(s) (list prefix and number)

- None

### 16b. Test Score(s)

- None

### 16c. Co-requisite(s) (concurrent enrollment required)

- None

### 16d. Other Restriction(s)

- ☑ College
- ☐ Major
- ☐ Class
- ☐ Level

#### 16e. Registration Restriction(s) (non-codable)

Admitted students in Petroleum Technology Undergraduate Certificate program or Process Technology A.A.S. major.

### 17. ☑ Mark if course has fees

### 18. ☐ Mark if course is a selected topic course

### 19. Justification for Action

- Update curriculum to reflect current technology, update major restriction, update registration restrictions and coordinate course with other courses within the program.

---

**Initiator Name (typed):** Henry W. Haney

**Initiator Signed Initials:** _________

**Date:** [ ]

---

**Initiator (TYPE NAME):** Henry W. Haney

**Initiator (faculty only):** Henry W. Haney

**Date:** [ ]

---

**Approved**

**Disapproved**

**Dean/Director of School/College**

**Date:** [ ]

---

**Approved**

**Disapproved**

**Undergraduate/Graduate Academic**

**Date:** [ ]

---

**Approved**

**Disapproved**

**Board Chairperson**

**Date:** [ ]

---

**Approved**

**Disapproved**

**Provost or Designee**

**Date:** [ ]
I. Initiation Date: January 8, 2013

II. Course Information
   A. College: Kenai Peninsula College
   B. Course Title: Oil and Gas Exploration and Production
   C. Course Subject/Number: PRT A160
   D. Credit: 3.0 credits
   E. Contact Time: 3+0
   F. Grading Information: A-F
   G. Course Description: Surveys oil and gas exploration, reservoir geology and aspects of petroleum mineral leasing. Covers drilling and production technologies, completion systems and methods of crude delivery. Surveys emulsion hazards and treatment. Covers natural gas production and tar sands production. Examines current marketing strategies and reviews the theory of peak oil.
   H. Status of course relative to degree or certificate programs: Required for Petroleum Technology Certificate.
   I. Lab Fee: None
   J. Coordination: UAA Faculty Listserv, Petroleum Technology and Process Technology.
   K. Course Prerequisite: None
   L. Registration Restrictions: Admitted students in Petroleum Technology Undergraduate Certificate program, Process Technology A.A.S. major or Instructor permission.

III. Course Level Justification
    Introduces a field of knowledge and develops basic skills.

IV. Instructional Goals
    The instructor will:
    A. Provide an overview of the history of oil and gas, its position as an energy resource today and in the future.
    B. Discuss petroleum geology, exploration and mineral leasing.
    D. Explain drilling operations; on-shore and off-shore; equipment, systems and terminology.
    E. Examine well completion, work-over, well service and secondary enhancement methods.
    F. Describe production and transportation operations, on-shore and off-shore; equipment, systems and terminology.
    G. Survey natural gas drilling techniques, completion methods, production and treatment.
H. Discuss emulsion; its formation and treatment, and its effects on oil production.
I. Analyze aspects of the changing world of oil and gas.

V. Student Learning Outcomes

<table>
<thead>
<tr>
<th>The student will be able to:</th>
<th>One or more of the following assessment methods will be used:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Identify the different types of oil and gas resource ownership and legal issues associated with each.</td>
<td>Homework and tests</td>
</tr>
<tr>
<td>2. Examine the history of oil and gas and explain current changes and their effect on the Oil and Gas Industry.</td>
<td>Homework and tests</td>
</tr>
<tr>
<td>3. Enumerate the primary safety, health and environmental considerations associated with oil and gas exploration and production.</td>
<td>Homework</td>
</tr>
<tr>
<td>4. Sketch and describe the function of modern drilling equipment.</td>
<td>Homework, diagrams and tests</td>
</tr>
<tr>
<td>5. Describe oil and gas well completion methods, plus secondary and tertiary well enhancement procedures.</td>
<td>Homework, diagrams and tests</td>
</tr>
<tr>
<td>6. Explain various well servicing and well workover techniques including coil tubing, wireline and slickline operations.</td>
<td>Homework and tests</td>
</tr>
<tr>
<td>7. Sketch and describe the function of production well equipment.</td>
<td>Homework, diagrams and tests</td>
</tr>
<tr>
<td>8. Sketch and describe common techniques used to separate and treat produced fluids (emulsion).</td>
<td>Homework, diagrams and tests</td>
</tr>
<tr>
<td>9. Define applicable “upstream” hydrocarbon nomenclature.</td>
<td>Homework and tests</td>
</tr>
</tbody>
</table>

VI. Course Content Outline

A. History
   1. Oil and gas: prior to the 1840s
   2. Oil and gas: 1840s to 1900
   3. Oil and gas: 1900 to present
   4. Overview of Alaska oil and gas development

B. Petroleum geology
   1. Basic concepts of oil and gas geology
   2. Origin, migration and accumulation of oil and gas deposits
   3. Various types of oil and gas traps
   4. Fluid and gas flow characteristics within the geological formations
   5. Reservoir pressure variables
C. Petroleum exploration
   1. Types of oil and gas mineral rights
   2. Private oil and gas leases
   3. Public oil and gas leases
   4. Lease bidding and bonus payments
   5. Surface oil and gas mineral exploration
   6. Seismic oil and gas mineral exploration methods and equipment
   7. Seismic oil and gas data resources: public and private

D. Drilling operations
   1. Drilling rigs; cable tool and rotary type
   2. Drive methods: Kelly-Turntable and Top-Drive
   3. Drilling mud system
   4. Drilling techniques: vertical, deviated and horizontal
   5. Blow-out preventer systems
   6. Drill bit designs and operation
   7. Environmental and safety considerations

E. Well completion
   1. Christmas trees: single and dual completion
   2. Wellheads: tubing head and casing head
   3. Casing and associated equipment
   4. Tubing string and associated equipment
   5. Perforation equipment and operation
   6. Fracturing equipment and operation
   7. Cementing equipment and operation
   8. Coiled tubing methods
   9. Nitrogen displacement procedures
   10. Environmental and safety considerations

F. Production
   1. Surface safety valves and sub-surface safety valves
   2. Two phase separator, three phase separator, FWKO and coalescer
   3. Pigging operations
   4. Primary, secondary and tertiary recovery
   5. Test separators
   6. Chokes, well flow and overproduction hazards
   7. Environmental and safety considerations

G. Well servicing and well workover
   1. Wireline and slickline operations
   2. Well logging
   3. Setting gas lift valves, packers and electrical submersible pumps
   4. Coiled tubing and well stimulation
H. Off-shore
   1. History of offshore drilling and production
   2. Platform types; exploration, drilling and production
   3. Undersea remote drilling and production systems
   4. Environmental and safety considerations

I. Transportation
   1. On-shore: tankage, pipeline systems, railroad, truck and inland barge
   2. Off-shore: pipeline, Hub, FSPO, ship
   3. Environmental and safety considerations

J. Economics
   1. Exploration costs: USA and world regions
   2. Production Costs: USA and world regions
   3. Crude prices: USA and world regions

K. Emulsion
   1. Formation
   2. Components
   3. Prevention and treatment

L. Natural Gas
   1. Exploration and production
   2. Hydrates
   3. Condensate and natural gas liquids
   4. Gas transportation
   5. Environmental and safety considerations

M. Tar sand, shale and other difficult crude oil sources
   1. Production methods

N. Peak oil and the changing energy market

VII. Suggested Texts


*Leecraft, J. (1987). Field Handling of Natural Gas (4th ed.). Austin, TX: The University of Texas at Austin - Petroleum Extension Service

VIII. Bibliography


*Classic Text in Field*
Course Action Request  
University of Alaska Anchorage  
Proposal to Initiate, Add, Change, or Delete a Course

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<table>
<thead>
<tr>
<th>2. Course Prefix</th>
<th>PRT</th>
<th>3. Course Number</th>
<th>A230</th>
<th>4. Previous Course Prefix &amp; Number</th>
<th>None</th>
<th>5a. Credits/CEUs</th>
<th>4.0</th>
<th>5b. Contact Hours (Lecture + Lab)</th>
<th>(3+2)</th>
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<tr>
<th>6. Complete Course Title</th>
<th>Process Technology II: Systems</th>
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<td>Abbreviated Title for Transcript (30 character)</td>
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<th>☑ Academic</th>
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<th>☐ Non-credit</th>
<th>☐ CEU</th>
<th>☐ Professional Development</th>
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<th>8. Type of Action:</th>
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<th>☒ Change</th>
<th>☐ Delete</th>
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<tr>
<td>If a change, mark appropriate boxes:</td>
<td>Prefix</td>
<td>Course Number</td>
<td>Credits</td>
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<th>9. Repeat Status No</th>
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<table>
<thead>
<tr>
<th>10. Grading Basis</th>
<th>☑ A-F</th>
<th>☐ P/NP</th>
<th>☐ NG</th>
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<thead>
<tr>
<th>11. Implementation Date</th>
<th>semester/year</th>
<th>From: Fall/2013</th>
<th>To: /9999</th>
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<thead>
<tr>
<th>12.</th>
<th>☐ Cross Listed with</th>
<th>☐ Stacked with</th>
<th>Cross-Listed Coordination Signature</th>
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<table>
<thead>
<tr>
<th>13a. Impacted Courses or Programs:</th>
<th>List any programs or college requirements that require this course.</th>
</tr>
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<tbody>
<tr>
<td></td>
<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>
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<th>Impacted Program/Course</th>
<th>Catalog Page(s)</th>
<th>Impacted</th>
<th>Date of Coordination</th>
<th>Chair/Coordinator Contacted</th>
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<thead>
<tr>
<th>13b. Coordination Email</th>
<th>Date: 1/8/2013</th>
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<table>
<thead>
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<th>13c. Coordination with Library Liaison</th>
<th>Date: 1/8/2013</th>
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<table>
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<tr>
<th>14. General Education Requirement</th>
<th>Mark appropriate box:</th>
<th>Oral Communication</th>
<th>Written Communication</th>
<th>Social Sciences</th>
<th>Quantitative Skills</th>
<th>Humanities</th>
<th>Integrative Capstone</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

<table>
<thead>
<tr>
<th>15. Course Description (suggested length 20 to 50 words)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examines how individual components interact as part of a specific process system. Covers how specific process systems integrate and function within a process facility. Reviews the scientific principles incorporated in the proper working of process systems. Surveys a selection of process industries with emphasis directed toward those located in Alaska.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>16a. Course Prerequisite(s) (list prefix and number)</th>
<th>PRT A130 and PRT A140</th>
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<tbody>
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<table>
<thead>
<tr>
<th>16b. Test Score(s)</th>
<th>None</th>
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<thead>
<tr>
<th>16c. Co-requisite(s) (concurrent enrollment required)</th>
<th>None</th>
</tr>
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<tbody>
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<table>
<thead>
<tr>
<th>16e. Registration Restriction(s) (non-codable)</th>
<th>Admitted students in Process Technology A.A.S. major, Industrial Process Instrumentation A.A.S. major or Petroleum Technology Undergraduate Certificate program.</th>
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<table>
<thead>
<tr>
<th>17.</th>
<th>☑ Mark if course has fees</th>
<th>☐ Mark if course is a selected topic course</th>
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<table>
<thead>
<tr>
<th>19. Justification for Action</th>
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</thead>
<tbody>
<tr>
<td>Update curriculum to reflect current technology, update prerequisites, update major restriction, update registration restrictions and coordinate course with other courses within the program.</td>
</tr>
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<table>
<thead>
<tr>
<th>Initiator (faculty only)</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Henry W. Haney</td>
<td></td>
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<table>
<thead>
<tr>
<th>Initiator (TYPE NAME)</th>
<th>Date</th>
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<th>Date</th>
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<table>
<thead>
<tr>
<th>Dean/Director of School/College</th>
<th>Date</th>
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<th>Undergraduate/Graduate Academic</th>
<th>Date</th>
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<tr>
<th>Board Chairperson</th>
<th>Date</th>
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<tr>
<th>Provost or Designee</th>
<th>Date</th>
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54
<table>
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<tr>
<th>Impacted Program/Course</th>
<th>Catalog Page(s) Impacted</th>
<th>Date of Coordination</th>
<th>Chair/Coordinator Contacted</th>
</tr>
</thead>
</table>

Initiator Name (typed): Henry W. Haney
Initiator Signed Initials: _________
Date: __________________
I. Initiation Date: January 8, 2013

II. Course Information
   A. College: Kenai Peninsula College
   B. Course Title: Process Technology II: Systems
   C. Course Subject/Number: PRT A230
   D. Credit: 4.0 credits
   E. Contact Time: 3+2
   F. Grading Information: A-F
   G. Course Description: Examines how individual components interact as part of a specific process system. Covers how specific process systems integrate and function within a process facility. Reviews the scientific principles incorporated in the proper working of process systems. Surveys a selection of process industries with emphasis directed toward those located in Alaska.
   H. Status of course relative to degree or certificate programs: Required for Process Technology A.A.S. Required for Petroleum Technology Certificate.
   I. Lab Fee: Yes
   K. Course Prerequisite: PRT A130 and PRT A140

III. Course Level Justification
    This course introduces basic knowledge through an overview of various equipment systems found within the process industry. The course additionally builds on foundational knowledge obtained in prior course. This is the second course in a three semester course sequence.

IV. Instructional Goals
    The instructor will:
    A. Identify various systems commonly used in process industries.
    B. Examine each system’s basic design, operation and functional purpose.
    C. Explain each system’s working relationship with other systems and overall economic impact within a larger process.
    D. Describe common operating problems and safety factors affecting systems operation.
    E. Introduce scientific principles incorporated in the proper working of process systems.
V. Student Learning Outcomes

<table>
<thead>
<tr>
<th>The student will be able to:</th>
<th>One or more of the following assessment methods will be used:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Identify and describe various process systems.</td>
<td>Homework, tests and P&amp;ID drawing</td>
</tr>
<tr>
<td>2. Describe the basic equipment components of a process system.</td>
<td>Homework, tests and P&amp;ID drawing</td>
</tr>
<tr>
<td>3. Explain the operation, design and equipment relationship of a process system.</td>
<td>Homework and tests</td>
</tr>
<tr>
<td>4. Explain the functional purpose of a process system, what the system produces and why it is necessary within a process unit.</td>
<td>Homework</td>
</tr>
<tr>
<td>5. Describe the basic scientific principles associated with a process system.</td>
<td>Homework and tests</td>
</tr>
<tr>
<td>6. Discuss factors affecting system operation: feed, level, flow, pressure and ambient conditions.</td>
<td>Homework and tests</td>
</tr>
<tr>
<td>7. Identify process industries using similar equipment and systems.</td>
<td>Homework</td>
</tr>
<tr>
<td>8. Illustrate the purpose of the various components using a process flow diagram.</td>
<td>Homework, tests and P&amp;ID drawing</td>
</tr>
<tr>
<td>9. Describe common operating problems that may occur within a system.</td>
<td>Homework and tests</td>
</tr>
<tr>
<td>10. Explain safe procedures one should use when operating a process system.</td>
<td>Homework and tests</td>
</tr>
<tr>
<td>11. Relate operation of the systems to impacts on process unit economics; operating costs, process optimization, and efficient control.</td>
<td>Homework</td>
</tr>
</tbody>
</table>

VI. Course Content Outline

A. Utilities
   1. Fuel systems
   2. Water: potable, cooling, process and fire
   3. Plant air: instrument and utility
   4. Nitrogen systems
   5. HVAC systems
   6. Chemical injection
   7. Wastewater treatment

B. Filtration Types
   1. Particulate
   2. Charcoal
   3. Lube oil
C. Distillation and reaction
   1. Fractionation process methods
   2. Reaction process types

D. Extraction and separation
   1. Absorption
   2. Adsorption
   3. Extraction

E. Steam boiler systems
   1. Fire tube boilers
   2. Water tube boiler systems
   3. Water treatment
   4. Deaerator system
   5. Super-heated steam

F. Furnaces, heaters and reformers
   1. Heat transfer
   2. Exhaust: draft, O₂, NOx, CO and particulates
   3. Energy economics
   4. Hot oil systems

G. Power generation and distribution
   1. Power generation types
   2. Power synchronization and grid input
   3. Emergency power generation
   4. Batteries and uninterrupted power supplies

H. Upstream oil and gas systems
   1. Crude: primary, secondary and tertiary lift systems
   2. Crude: wellheads, flow lines and manifolds
   3. Crude: two phase and three-phase separation, coalescer and free-water knockout
   4. Gas-liquids separation and compression
   5. Gas dehydration systems

I. Mining systems
   1. Methods: underground and open pit
   2. Ore processing systems

J. Food processing systems
   1. Flash freezing
   2. Canning and retorting
   3. Vacuum packaging
   4. Bacteria and contamination

K. Communication systems for process control and operation
   1. Radio
   2. Computers
   3. SCADA systems
   4. Remote television
L. Fire and safety systems
   1. Pressure relief and flare systems
   2. Emergency and operation shutdown systems
   3. Fire systems: detection and suppression

VII. Suggested Text


VIII. Bibliography


## Course Action Request

### University of Alaska Anchorage

Proposal to Initiate, Add, Change, or Delete a Course

### 1. School or College

**KP KPC**

### 2. Course Prefix

**PRT**

### 3. Course Number

**A231**

### 4. Previous Course Prefix & Number

None

### 5. Credits/CEUs

4.0

### 6. Complete Course Title

Process Technology III: Operations

### 7. Type of Course

- Academic
- Preparatory/Development
- Non-credit
- CEU
- Professional Development

### 8. Type of Action

- [ ] Add
- [x] Change
- [ ] Delete

### 9. Repeat Status No

- [x] # of Repeats
- [ ] Max Credits

### 10. Grading Basis

- [x] A-F
- [ ] P/NP
- [ ] NG

### 11. Implementation Date

- From: Fall 2013
- To: 9999

### 12. Cross Listed with

- [ ] Stacked with

### 13. 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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### 14. General Education Requirement

Mark appropriate box:

- Oral Communication
- Written Communication
- Quantitative Skills
- Social Sciences
- Natural Sciences
- Humanities
- Fine Arts
- Integrative Capstone

### 15. Course Description (suggested length 20 to 50 words)

Analyzes the operator duties and responsibilities that occur in a process operation with emphasis focused on the unit (outside) operator position. Examines the different operational phases found in a process operation. Covers the operation of a variety of Alaska Process Industries and an overview of their operator duties.

16a. Course Prerequisite(s) (list prefix and number)

PRT 250 or concurrent enrollment, PRT A230 and PRT A144

16b. Test Score(s)

None

16c. Co-requisite(s) (concurrent enrollment required)

None

16d. Other Restriction(s)

- [ ] College
- [x] Major
- [ ] Class
- [ ] Level

16e. Registration Restriction(s) (non-codable)

Admitted students in Process Technology A.A.S. major or Petroleum Technology Undergraduate Certificate program.

17. Mark if course has fees

- [ ]

18. Mark if course is a selected topic course

- [ ]

### 19. Justification for Action

Update curriculum to reflect current technology, update prerequisites, update major restriction, update registration restrictions and coordinate course with other courses within the program.

### 20. Initiation

Initiator (faculty only)

**Henry W. Haney**

Initiator Signed Initials: ___________

Date: __________________

### 21. Coordination

- Coordination Email

Date: 1/12/13

- Coordination with Library Liaison

Date: 1/12/13

### 22. Approval

- Approved
- Disapproved

- Dean/Director of School/College

Date: __________________

- Approved
- Disapproved

- Undergraduate/Graduate Academic

Date: __________________

- Approved
- Disapproved

- Provost or Designee

Date: __________________

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<th>Impacted Program/Course</th>
<th>Catalog Page(s) Impacted</th>
<th>Date of Coordination</th>
<th>Chair/Coordinator Contacted</th>
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<tr>
<td>3. PRT A250 Process Troubleshooting</td>
<td>229</td>
<td>1/8/2013</td>
<td>Henry W. Haney</td>
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<tr>
<td>5. PRT A255 Quality Concepts</td>
<td>229</td>
<td>1/8/2013</td>
<td>Henry W. Haney</td>
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Initiator Name (typed): Henry W. Haney

Initiator Signed Initials: __________  Date: _______________
I. Initiation Date: January 12, 2013

II. Course Information
   A. College: Kenai Peninsula College
   B. Course Title: Process Technology III: Operations
   C. Course Subject/Number: PRT A231
   D. Credit: 4.0 credits
   E. Contact Time: 3+2
   F. Grading Information: A-F
   G. Course Description: Analyzes the operator duties and responsibilities that occur in a process operation with emphasis focused on the unit (outside) operator position. Examines the different operational phases found in a process operation. Covers the operation of a variety of Alaska Process Industries and an overview of their operator duties.
   H. Status of course relative to degree or certificate programs: Required for Process Technology A.A.S. Required for Petroleum Technology Undergraduate Certificate.
   I. Lab Fee: Yes
   J. Coordination: UAA Faculty Listserv, Process Technology and Petroleum Technology.
   K. Course Prerequisite: PRT A250 or concurrent enrollment, PRT A230 and PRT A144
   L. Registration Restrictions: Admitted students in Process Technology A.A.S. major, Petroleum Technology Undergraduate Certificate program or Instructor permission.

III. Course Level Justification
   This is the third course in a three-semester course sequence. This course specifically integrates prior knowledge obtained in PRT A130 and PRT A230, plus it incorporates the knowledge base obtained in PRT A144 and PRT A250, and shows students how to use and apply such knowledge in an efficient, safe and environmentally secure manner as a process operator.

IV. Instructional Goals
   The instructor will:
   A. Describe the various operational phases of a process facility.
      1. Examine operational characteristics for each phase.
      2. Present an overview of the operator’s role in each phase.
      3. Analyze the unit (outside) operator position in each phase.
      4. Address the health, safety, and environmental aspects associated with each phase.
B. Describe the operator’s role in upstream oil production with emphasis on unit (outside) operations.

C. Describe the operator’s role in pipeline and marine terminal operation with emphasis on unit (outside) operations.

D. Describe the operator’s role in downstream oil and chemical processing; emphasis on unit (outside) operations.

E. Describe the operator’s role in natural gas production, and processing; emphasis on unit (outside) operations.

F. Describe the operator’s role in a variety of Alaska process industries such as: water and wastewater operations, power production, mining and ore processing, plus fish processing (retort canning and flash-freezing specific).

G. Facilitate a variety of process industry tours.

V. Student Learning Outcomes

<table>
<thead>
<tr>
<th>The student will be able to:</th>
<th>One or more of the following assessment methods will be used:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Describe the operator’s role in all phases of a process facility operation.</td>
<td>Homework, tests and drawings</td>
</tr>
<tr>
<td>2. Explain the typical duties of a unit (outside) operator during normal and other phases of operation.</td>
<td>Homework, tests, and process simulator operation</td>
</tr>
<tr>
<td>3. Explain the operator’s role in upstream oil production.</td>
<td>Homework and tests</td>
</tr>
<tr>
<td>4. Explain the operator’s role in pipeline and marine terminal operation.</td>
<td>Homework and tests</td>
</tr>
<tr>
<td>5. Explain the operator’s role in downstream oil and chemical processing.</td>
<td>Homework, tests, and process simulator operation</td>
</tr>
<tr>
<td>6. Describe the operator’s role in natural gas production, and processing.</td>
<td>Homework, tests, and process simulator operation</td>
</tr>
<tr>
<td>7. Give an overview of an operator’s role in water and wastewater operations, power production, mining and ore processing, plus fish processing including both retort canning and flash-freezing.</td>
<td>Homework and tests</td>
</tr>
</tbody>
</table>

VI. Course Content Outline

A. General operations
   1. Safety minute
   2. Shift change
   3. Procedure writing
   4. The operator and process economics
   5. Drug and alcohol testing
   6. Special assignments: “haz-ops” team, accident investigation, turnaround planning

B. Phases of a process operation
   1. Commissioning and decommissioning
   2. Start-up and shutdown
3. Normal operations
4. Abnormal and emergency
5. Turnaround

C. Concept of how to learn a process
   1. Single primary flow process
   2. Multiple primary flows process
   3. Multi-plant operations process

D. Board operations overview
   1. Visualizing the process operation
   2. SOCL (standard operating conditions and limits) and alarm response
   3. Multi-tasking
   4. Crew supervision
   5. Maintenance and contractor’s
   6. Safety and environmental

E. The unit (outside) operator
   1. Making a “round”
   2. Effective communications; in-plant and effective turnover’s
   3. Readings, other data collection, record keeping and writing work orders
   4. Alarm response and corrective actions
   5. Permitting
   6. Operator “light maintenance”
   7. On-site contractors
   8. Sampling and sampling types: stream, grab and final
   9. Housekeeping
   10. Safety equipment checks

F. Preparing equipment and systems for maintenance.
   1. Permitting, permit types, tags, and documentation
   2. The JSA (job safety analysis)
   3. Equipment isolation in active operations: start-up, shut-down, and bypassing procedures
   4. Lock-out/tag-out general procedures
   5. Specific types of equipment isolation methods, blinds, double block and bleed, spool pieces
   6. Hazardous atmosphere testing, procedures and equipment
   7. Purging methods and hazards
   8. Venting and draining: environmental and safety considerations
   9. In-plant crane operations

G. Tank field and pipeline operations
   1. Transfers: start-up, shut-down, line-packs, displacements and flow-rates
   2. Tank blending, mixing, gauging and sampling procedures
   3. Product movement calculations
   4. Pig launching and receiving procedures
   5. API gravity and blend calculations
   6. Truck and railcar loading
H. Turbine and compressor operation
   1. Gas and steam turbines
   2. Positive displacement compressor
   3. Dynamic compressor
I. Overview of downstream operation
   1. Refinery and distillation process operations
   2. Chemical and reaction process operations
   3. Liquefied natural gas process operation
J. Overview of upstream oil and gas operations
   1. Production pads and platform leg-rooms
   2. Christmas trees, chokes, production manifolds, test separators
   3. Surface safety valve and sub-surface safety valve operation
   4. Gas lift, gas injection, waterflood and miscible injection
   5. Electrical submersible pump and hydraulic actuated pump
   6. Wireline, hardline, well shut-in
   7. Production facilities: two and three phase separation, coalescer and free water knock-outs
   8. Waste water treatment and grind and inject wells
K. Natural gas production processing overview
   1. Well production and pipeline
   2. Gas condensate, natural gas liquids and water removal
   3. Amine units, dehydration units, sulfur removal unit
L. Alaska “non-oil and gas” process operations and operator duties
   1. Water and wastewater operations
   2. Power production
   3. Mining and ore processing
   4. Fish processing; retort canning and flash-freezing
M. Operate process simulator
N. Field trips to process facilities.

VII. Suggested Texts


VIII. Bibliography


* Classic Text in Field
### Course Action Request

#### Proposal to Initiate, Add, Change, or Delete a Course

<table>
<thead>
<tr>
<th>1a. School or College</th>
<th>KP KPC</th>
<th>1b. Division</th>
<th>No Division Code</th>
<th>1c. Department</th>
<th>Business &amp; Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course Prefix</strong></td>
<td>PRT</td>
<td><strong>Course Number</strong></td>
<td>A250</td>
<td><strong>Previous Course Prefix &amp; Number</strong></td>
<td>None</td>
</tr>
<tr>
<td><strong>Credits/CEUs</strong></td>
<td>3.0</td>
<td><strong>Contact Hours</strong></td>
<td>(Lecture + Lab) (3+0)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 6. Complete Course Title

**Process Troubleshooting**

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  
- [ ] Credits  
- [ ] Title  
- [ ] Grading Basis  
- [x] Course Description  
- [ ] Test Score Prerequisites  
- [ ] Other Restrictions  
- [ ] Other Fees (please specify)

#### 9. Repeat Status No

- [x] A-F  
- [ ] P/np  
- [ ] NG

#### 10. Grading Basis

- [x] A-F  
- [ ] P/np  
- [ ] NG

#### 11. Implementation Date

- From: Fall 2013  
- To: /9999

#### 12. Cross Listed

- [ ] Stacked  
- [ ] with

**Cross-Listed Coordination Signature**

#### 13a. Impacted Programs or Courses:

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>Catalog Page(s) Impact</th>
<th>Date of Coordination</th>
<th>Chair/Coordinator Contacted</th>
</tr>
</thead>
</table>

**Initiator Name (typed): Henry W. Haney**  
**Initiator Signed Initials: _________**  
**Date: _________**

#### 13b. Coordination Email

- [ ] Date: 1/8/2013
- [ ] submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

#### 13c. Coordination with Library Liaison

- [ ] Date: 1/8/2013

#### 14. General Education Requirement

Mark appropriate box:

- [ ] Oral Communication  
- [ ] Written Communication  
- [ ] Quantitative Skills  
- [ ] Social Sciences  
- [ ] Natural Sciences  
- [ ] Humanities  
- [ ] Fine Arts  
- [ ] Integrative Capstone

#### 15. Course Description (suggested length 20 to 50 words)

Introduces the concept of troubleshooting, analyzes how instrumentation such as indicators, variables, and controllers can be used effectively in troubleshooting procedures and develops troubleshooting skills that can be used effectively throughout the process industry.

#### 16a. Course Prerequisite(s) (list prefix and number)

- PRT A230 and PRT A144 or con-current enrollment

#### 16b. Test Score(s)

- [ ] None

#### 16c. Co-requisite(s) (concurrent enrollment required)

- [ ] None

#### 16d. Other Restriction(s)

- [ ] College  
- [x] Major  
- [ ] Class  
- [ ] Level

#### 16e. 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

Update curriculum to reflect current technology, update prerequisites, update major restriction, update registration restrictions and coordinate course with other courses within the program.

---

**Initiator (faculty only)**

**Initiator (TYPE NAME)**

[ ] Approved  
[ ] Disapproved

**Dean/Director of School/College**

[ ] Approved  
[ ] Disapproved

**Undergraduate/Graduate Academic**

[ ] Approved  
[ ] Disapproved

**Board Chairperson**

[ ] Approved  
[ ] Disapproved

**Provost or Designee**

[ ] Approved  
[ ] Disapproved

---

67
I. Initiation Date: January 8, 2013

II. Course Information
   A. College: Kenai Peninsula College
   B. Course Title: Process Troubleshooting
   C. Course Subject/Number: PRT A250
   D. Credit: 3.0 credits
   E. Contact Time: 3+0
   F. Grading Information: A-F
   G. Course Description: Introduces the concept of troubleshooting, analyzes how instrumentation such as indicators, variables, and controllers can be used effectively in troubleshooting procedures and develops troubleshooting skills that can be used effectively throughout the process industry.
   H. Status of course relative to degree or certificate programs: Required for Process Technology A.A.S. Required for Petroleum Technology Undergraduate Certificate.
   I. Lab Fee: Yes
   K. Course Prerequisite: PRT A230 and PRT A144 or con-current enrollment
   L. Registration Restrictions: Admitted students in Process Technology A.A.S. major, Petroleum Technology Undergraduate Certificate program or Industrial Process Instrumentation A.A.S. major or Instructor permission.

III. Course Level Justification
This course teaches specific troubleshooting procedures, tools and methods commonly understood to be most effective within the overall process industry.

IV. Instructional Goals
The instructor will:
   A. Explain effective process troubleshooting procedures.
   B. Define the types of tools and methods used in process troubleshooting.
   C. Discuss the function of process variables, the interrelationship between them, and the meaning of the measured value of each.
   D. Discuss process indicators and control loops; identifying their function, components and their role in troubleshooting.
   E. Describe how process troubleshooting is applied in a variety of control systems.
V. Student Learning Outcomes

<table>
<thead>
<tr>
<th>The student will be able to:</th>
<th>One or more of the following assessment methods will be used:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Use appropriate troubleshooting tools and procedures.</td>
<td>Homework and tests</td>
</tr>
<tr>
<td>B. Establish the operating parameters of each piece of equipment.</td>
<td>Simtronics simulator, homework and tests</td>
</tr>
<tr>
<td>C. Establish the function and operating parameters of all controls and control loops.</td>
<td>Simtronics simulator, homework and tests</td>
</tr>
<tr>
<td>D. Describe the potential outcome for a change in operating parameters.</td>
<td>Simtronics simulator, homework and tests</td>
</tr>
<tr>
<td>E. Describe a combination of operating parameters that would give rise to the abnormal results observed in a problem situation.</td>
<td>Homework and tests</td>
</tr>
<tr>
<td>F. Apply the troubleshooting process to solve operational problems in a variety of process systems.</td>
<td>Simtronics simulator, homework and tests</td>
</tr>
</tbody>
</table>

VI. Course Content Outline

A. Process variables
   1. Definitions and examples
   2. Interrelationship between variables
   3. Measured value or values

B. Process indicators
   1. Function
   2. Components

C. Control Loop
   1. Components
   2. Function of components

D. The role of indicators and controllers in troubleshooting

E. Troubleshooting tools
   1. List and define
   2. Explain uses

F. Troubleshooting process
   1. Explanation of each step
   2. Use of tools at each step
   3. Relationship of parameters between steps
   4. Relevant process data

G. Application of troubleshooting process to given situations selected from the following Simtronics Simulator Models:
   1. Pump
   2. Compressor
3. Heat Exchanger
4. Cooling Tower
5. Boiler
6. Furnace
7. Distillation
8. Reactor
9. Separation
10. Multivariable
11. Glycol Dehydration
12. Amine

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>
<th>1b. Division</th>
<th>1c. Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>KP KPC</td>
<td>No Division Code</td>
<td>Business &amp; Industry</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 (Lecture + Lab)</th>
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<tbody>
<tr>
<td>PRT</td>
<td>A255</td>
<td>None</td>
<td>1</td>
<td>(1+0)</td>
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### 6. Complete Course Title

**Quality Concepts for the Process Industry**  
**Qual Concepts for Process Ind**  

**Abbreviated Title for Transcript (30 character)**

**Initiator Name (typed):** Henry W Haney  
**Initiator Signed Initials:** ____________

**Date:** ______________

**Board Chairperson:** ______________  
**Dean/Director of School/College:** ______________  
**Provost or Designee:** ______________

**Curriculum Committee Chairperson:** ______________  
**Department Chairperson:** ______________

**Co-Registrar:** ______________

---

### 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
- [ ] Cross-Listed/Stacked
- [ ] Course Description
- [ ] Test Score Prerequisites
- [ ] Other Restrictions
- [ ] Class
- [ ] Level
- [ ] College
- [ ] Major
- [ ] (please specify)

### 9. Repeat Status No

**# of Repeats**

<table>
<thead>
<tr>
<th>Max Credits</th>
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<td></td>
</tr>
</tbody>
</table>

### 10. Grading Basis

- [X] A-F
- [ ] P/NP
- [ ] NG

### 11. Implementation Date

From: Fall/2013  
To: 9999

### 12. Cross Listed with

- [ ] Stacked

Cross Listed 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>Catalog Page(s)</th>
<th>Date of Coordination</th>
<th>Chair/Coordinator Contacted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Process Technology AAS</td>
<td>228</td>
<td>1/8/2013</td>
<td>Henry W Haney</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):** Henry W Haney  
**Initiator Signed Initials:** ____________  
**Date:** ______________

### 13b. Coordination Email

**Date:** 1/8/2013  
**submitted to Faculty Listserv:** (fak-faculty@lists.uaa.alaska.edu)

### 13c. Coordination with Library Liaison

**Date:** 1/8/2013

---

### 14. General Education Requirement

Mark appropriate box:

- [ ] Oral Communication
- [ ] Written Communication
- [ ] Quantitative Skills
- [ ] Social Sciences
- [ ] Natural Sciences
- [ ] Integrative Capstone

### 15. Course Description (suggested length 20 to 50 words)

Examines quality concepts, tools, and methods used in the process industry and covers the effectiveness of their implementation and continued use. Investigates root cause analysis problem solving techniques. Examines methods necessary to facilitate effective teams and teamwork interaction.

### 16. Course Prerequisite(s) (list prefix and number)

PRT A230 or concurrent enrollment

### 16b. Test Score(s)

None

### 16c. Co-requisite(s) (concurrent enrollment required)

None

### 16d. Other Restriction(s)

- [ ] College
- [X] Major
- [ ] Class
- [ ] Level

### 16e. Registration Restriction(s) (non-codable)

Admitted students in Process Technology A.A.S. major.

### 17. Mark if course has fees

- [ ] Mark if course is a selected topic course

### 19. Justification for Action

Update curriculum to reflect current use within the process industry, update prerequisites, update registration restrictions and coordinate course with other courses within the program.

---

**Initiator (faculty only):** Henry W Haney

**Initiator (TYPE NAME):** ____________  
**Date:** ______________

**Approved Department Chairperson:** ____________  
**Disapproved Department Chairperson:** ____________

**Approved Undergraduate/Graduate Academic:** ____________  
**Disapproved Undergraduate/Graduate Academic:** ____________

**Approved Provost or Designee:** ____________  
**Disapproved Provost or Designee:** ____________

**Approved Curriculum Committee Chairperson:** ____________  
**Disapproved Curriculum Committee Chairperson:** ____________
I. Initiation Date: January 8, 2013

II. Course Information
A. College: Kenai Peninsula College
B. Course Title: Quality Concepts for the Process Industry
C. Course Subject/Number: PRT A255
D. Credit: 1.0 credits
E. Contact Time: 1+0
F. Grading Information: A-F
G. Course Description: Examines quality concepts, tools, and methods used in the process industry and covers the effectiveness of their implementation and continued use. Investigates root cause analysis problem solving techniques. Examines methods necessary to facilitate effective teams and teamwork interaction.
H. Status of course relative to degree or certificate programs: Required for Process Technology A.A.S.
I. Lab Fee: No
J. Coordination: UAA Faculty Listserv, Process Technology.
K. Course Prerequisite: PRT A230 or concurrent enrollment.
L. Registration Restrictions: Admitted students in Process Technology A.A.S. major or Instructor permission.

III. Course Level Justification
This course teaches both effective and practical use of quality concepts, teamwork techniques and root cause analysis procedures used in the process industry.

IV. Instructional Goals
The instructor will:
A. Discuss the history of the quality movement and its place in the process industry today.
B. Discuss the economic cost of quality.
C. Explain the concept and importance of external and internal customers.
D. Describe the concept of process variability in relation to process capability.
E. Describe quality tools; their effectiveness and use in the process industry.
G. Examine methods of root cause analysis.
H. Discuss teams and team dynamics that produce quality results.
I. Describe quality methods for organizing people and projects.
V. Student Learning Outcomes

<table>
<thead>
<tr>
<th>The student will be able to:</th>
<th>One or more of the following assessment methods will be used:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Explain how economic performance is affected by quality.</td>
<td>Homework and tests</td>
</tr>
<tr>
<td>B. Explain the relationship between variability and capability within a process operation.</td>
<td>Homework and in-class workshop</td>
</tr>
<tr>
<td>C. Identify external and internal customers and their importance in a quality operation.</td>
<td>Homework and tests</td>
</tr>
<tr>
<td>D. Explain how to function as an effective member of a team.</td>
<td>Homework and in-class workshop</td>
</tr>
<tr>
<td>E. Identify types of organizational tools and charts that can be used effectively to increase quality in the process industry.</td>
<td>Research Paper and tests</td>
</tr>
<tr>
<td>F. Identify variation through statistical measurement.</td>
<td>Research Paper and tests</td>
</tr>
<tr>
<td>G. Explain root cause analysis techniques.</td>
<td>Homework and tests</td>
</tr>
</tbody>
</table>

VI. Course Content Outline

A. The history of the quality movement
B. External and internal customers
C. Quality: people, safety and process operations
D. Economic cost of quality
E. Variability and it’s relation to capability
F. Quality tools and controls
   1. TQM (total quality management)
   2. PDCA – (plan, do, check, act)
   3. Histograms
   4. Pareto chart
   5. Brainstorming
   6. Ishigawa (Fishbone) chart
   7. Flow chart
   8. Trend chart
   9. Scatter chart
G. SPC (statistical process control)
   1. Concept of Six Sigma
H. Quality organizational tools
   1. Gantt Charts
   2. RACI Charts
   3. PERT Diagrams
I. Root cause analysis
   1. Fishbone Chart
   2. Kepner-Tregoe Basic
   3. “Five Whys”
   4. Apollo system
   5. Digraph interrelationship
   6. Process tree
   7. Time line analysis

J. Quality teams and team dynamics
   1. Hazard Operability Study

VII. Suggested Texts


    Cengage Learning.

VIII. Bibliography

    River, NJ: Prentice Hall

    Oxon, UK: Productivity Press

    Learning
Date: 4/22/2013
To: UAB/GAB Governance Boards
From: Eric R. Pedersen, AVC Enrollment Services
Re: Policy on Returning Students / Re Enrollment

Issue:
Currently there are two policies for returning students who stop out temporarily:

• Returning Students – No Attendance Outside the UA System (Chapter 7, Page 57)
• Returning Students – With Attendance Outside the UA System (Chapter 7, Page 58).
  o Determining whether or not a student has attendance outside of the UA system, and if they meet one of the eight exceptions, is a difficult, time consuming and error-prone process.
  o Error prone because information from the student may not be clear, maybe misleading, or not come in a timely manner (after the semester has started and they are enrolled).

Considerations:
• Following current policy the Office of Admission must break the student’s admission if they learn of outside enrollment. This can happen after the semester has begun (jeopardizing financial aid).
• Some students will already have had transfer credit evaluation done, it is confusing to them when transfer credit has been granted but then admission is cancelled per current policy.
• The problem is compounded by growth in distance education and the mobility of our students.
• Too much time is being spent handling petitions asking for exceptions to the outside attendance policy.

Proposal:

**Returning to UAA after a Break in Enrollment**

Undergraduate students who do not attend UA for two or more years will have their admissions canceled. To return to UAA they must apply for admission as a new applicant as instructed in this chapter and, if admitted, will be required to follow the program and graduation requirements under a new Catalog Year.

Undergraduate students who discontinue their enrollment at UAA for less than two years, remain admitted and may register for courses during normal registration periods. If applicable, they must submit official transcripts from institutions attended during their absence for transfer credit evaluation. Students return to UAA under the Catalog Year attached to their original admission.

In all cases the five year and seven year Catalog Year limitations described in this chapter apply.

Procedures for students academically disqualified are found in this chapter under ‘Reinstatement’. Students currently ineligible due to a Student Conduct Suspension should contact the Dean of Students Office for procedures.

Justification:
The change creates greater certainty for the student because the process is simpler, streamlined, and fits other current UAA admission processes. The time-based (two year) definition is easy for students, staff and faculty to understand and administer. The application process allows the institution to determine the student’s intention to return and to review any academic work completed during the absence.
Date: October 1, 2012  
To: UAA Faculty Senate  
From: Undergraduate Academic Board  
        Dave Fitzgerald, Chair  
Subj. UAB Goals and Outcomes for 2012-2013  

GOAL 1: Improve the efficiency and maintain the quality of UAB curriculum review by adopting new procedures and taking advantage of current technologies.  

GOAL 2: Update the Curriculum Handbook as needed.  

GOAL 3: Work with the Office of Academic Affairs and the Office of the Registrar to review relevant policies and procedures that affect undergraduate academics to ensure faculty input.  

Goal 4: Coordinate curriculum update plans with the Vice Provost for Undergraduate Academic Affairs, GAB Chair, and Academic Assessment Committee Chair.  

GOAL 5: Continue coordination with college/school curriculum committee chairs, department chairs, and faculty initiators.