***UAA Computer Science & Engineering Advisory Board***

***Meeting Agenda***

Date: Friday, January 13th 2017

Time: 12:00 to 1:30 pm

Place: EIB 304 (New Engineering Building)

1. Call to order
2. Roll call
3. Regular meeting approvals

* Approval of Agenda
* Approval of December 2nd meeting minutes
* Introduction / Approval of new Board members

1. Ethical concerns / considerations
2. Reports

* Kenrick:
  + Update on CSE Faculty Search, Enrollment, Robotics
  + \*Review of CS and CSE objectives and outcomes
    - <https://www.uaa.alaska.edu/academics/college-of-engineering/departments/computer-science-and-engineering/accreditation-cs.cshtml>
    - <https://www.uaa.alaska.edu/academics/college-of-engineering/departments/computer-science-and-engineering/accreditation-cse.cshtml>
  + Dr. Witmer is teaching a class on Geospatial Programming, if you think anyone from your organization would be interested in taking it, please see the attached syllabus
  + It is not ready yet but I hope to share a draft survey regarding topics students would like to hear about at the proposed student/faculty/industry presentation/colloquium.
* Shawn:
  + \*Facilitated discussion:
    - UAA’s current and future plans for CO-OP programs
    - How to engage companies
    - How to promote this as a benefit for Alaskan companies/UAA students in general
* Rob:
  + Board Commitment Form reminder
  + Annual “Meaningful donation” reminder
  + Brainstorming for Spring Workshop
    - Attendees
      * Students
      * Faculty
      * Industry
    - Suggested Topics
* Other

1. Adjournment
2. The next regularly scheduled meeting is scheduled for April 28th, 2017.

# Computer Science ABET Accreditation

The Bachelor of Science in Computer Science program is accredited by the Computing Accreditation Commission of ABET, http://www.abet.org. Program- specific Enrollment and Award Data is available here.

* UAA Page: <http://main.abet.org/aps/AccreditedProgramsDetails.aspx?OrganizationID=2>

# Program Objectives

The computer science program has adopted the following educational program objectives for the Bachelor of Arts and the Bachelor of Science degrees in computer science. Graduates with these degrees will achieve some or all of these objectives within five years of graduation:

1. Make contributions to the computing profession and apply computational solutions to solve real-world problems.
2. Successfully adapt to changes in the field of computer science.
3. Meet or exceed the expectations of their employers and professional mentors as computer science professionals and advance in their career.
4. Be admitted to and successfully complete advanced degree programs.
5. Contribute to the Alaska economy through their professional accomplishments in computing.

## Program Student Learning Outcomes

Students graduating with a Bachelor of Science in Computer Science will be able to:

1. Apply knowledge of computing and mathematics appropriate to the discipline.
2. Analyze a problem and identify and define the computing requirements appropriate to its solution.
3. Design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.
4. Function effectively on teams to accomplish a common goal.
5. Demonstrate an understanding of professional, ethical, legal, security and social issues and responsibilities.
6. Communicate effectively with a range of audiences, including technical and non-technical audiences for business, end-user, client and computing contexts.
7. Analyze the local and global impact of computing on individuals, organizations and society.
8. Recognize the need for and an ability to engage in continuing professional development.
9. Use current techniques, skills, and tools necessary for computing practice.
10. Apply mathematical foundations, algorithmic principles and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.
11. Apply design and development principles in the construction of software systems of varying complexity.

# Computer Systems Engineering ABET Accreditation

The Bachelor of Science in Computer Systems Engineering is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org. Program- specific Enrollment and Award Data is available here.

* UAA Page: <http://main.abet.org/aps/AccreditedProgramsDetails.aspx?OrganizationID=2>

## Program Objectives

1. Graduates are successful practitioners of computer engineering in a variety of industries, government agencies and research/academic institutions, serving the state of Alaska as well as national/international needs.
2. Graduates exhibit high standards regarding ethical behavior and social responsibility.
3. Graduates successfully engage in lifelong learning experiences such as graduate education, short courses, technical talks, conferences, training programs, community groups, and writing and/or publishing papers.

## Program Student Learning Outcomes

It is expected that graduates from the program will have:

* An ability to apply knowledge of mathematics, science and engineering.
* An ability to design and conduct experiments, as well as analyze and interpret data.
* An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
* An ability to function on multidisciplinary teams.
* An ability to identify, formulate and solve engineering problems.
* An understanding of professional and ethical responsibility.
* An ability to communicate effectively.
* The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental and societal context.
* A recognition of the need for, and the ability to engage in, lifelong learning.
* A knowledge of contemporary issues.
* An ability to use the techniques, skills and modern engineering tools necessary for engineering practice

## Co-op opportunities

Student employment assignments provide students the opportunity to become familiar with Alaska USA's organization, work style, culture and global reach. Salary is based upon the number of credits completed towards your degree. Students must provide verification of credits, in writing, from their school, prior to assignment.

Co-op and internship programs are an important recruiting channel for Alaska USA because they help us identify high-potential prospective employees. Participating students are often considered for repeat, or a long-term commitment of regular employment. This also provides a mechanism to hire and retain talent in the state of origin.

## Co-op — what's is it?

Co-ops allow students to apply their knowledge and expertise in their particular field, while gaining experience working for a global enterprise. The result is an experiential education that deepens the students knowledge and prepares them further for their chosen career.

A Co-op is a partnership between the student, university and employer to provide the student with a rich learning experience in their chosen field of study. The length of Co-op experience is typically a semester plus a summer (ex. January to August or June to December).

## Types of assignments

Alaska USA can offer co-op assignments within our various business units. Referring to the skills matrices to see where the student might fit in. Then, spend time talking with our recruiters, hiring managers.

Alaska USA can work with local universities, starting with University of Alaska Anchorage and Fairbanks. A list of potential positions and degrees would be provided to the school and the students.

In addition to the many technical roles Alaska USA can make available, other unique opportunities with Alaska USA might include the following:

* Security/InfoSec
* Finance
* Special Credits
* Human Resources
* Mortgage

## Eligibility

Students must be enrolled full-time at an accredited college or university leading to an undergraduate or advanced degree and must be in good standing at their school. Students should be hired into positions related to their degree.

Position availability

The main hiring seasons follow the academic school calendar (Fall, Spring and Summer), but Alaska USA should continuously seeks to hire top students co-ops throughout the year.

## Return assignments

Students will be eligible for a return Alaska USA assignment if their job and school performance are satisfactory and a business need exists. Information on the procedure for return assignments will be provided to students by their manager or staffing representative prior to their exit interview.

## Co-op Benefits

* Challenging and stimulating work assignments in leading-edge technology and services operations
* Competitive salaries that increase as additional credits towards the degree are earned
* Overtime pay at time-and-a-half for hours worked beyond the normal 40-hour week for undergraduate students
* Paid holidays during assignment period according to site procedures
* Two sickness and accident days for assignments greater than 60 work days

## Additional information:

### Recommended pay scales:

* Freshman-Sophomore transition:
  + - $xx-xx depending on the position/department
* Sophomore- Junior transition:
  + - $xx-xx depending on the position/department
* Junior-Senior and higher:
  + - $xx-xx depending on the position/department