### UNIVERSITY OF ALASKA FAIRBANKS

**Student Learning Outcomes Assessment Plan**

**Bachelor of Science in Civil Engineering**

**College of Engineering and Mines**

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| **MISSION STATEMENT:**  
1) Provide the highest level of undergraduate education. This will include competency in mathematics, science, engineering fundamentals as well as training in design, the latest engineering applications, and professional practice.  
2) Provide an environment encouraging research for engineers at the undergraduate, masters and doctorate levels.  
3) Impart a desire for life-long learning so that engineers from UAF CEE remain atop their field throughout their career.  
**GOAL STATEMENT:**  
Prepare students for the following program objectives:  
1) Graduates develop careers in civil engineering and other related fields.  
2) Graduates are productive engineers, accomplishing independent task assignments and working effectively in teams with other professionals.  
3) Graduates are active in the professional community, pursue licensure and lifelong learning, and demonstrate high ethical standards. | **Students have an ability to:**  
- a) apply knowledge of mathematics, science, and engineering.  
- b) design and conduct experiments, analyze and interpret data  
- c) design a system, component, or process to meet desired needs within realistic constraints.  
- d) function on multi-disciplinary teams  
- e) identify, formulate, and solve engineering problems  
- f) understand of professional and ethical responsibility  
- g) communicate effectively  
- h) understand the impact of engineering solutions in a broader context  
- i) recognize the need for, and engage in lifelong learning  
- j) knowledge of contemporary issues  
- k) knowledge of northern issues | **Student work samples obtained from the following classes/exams**  
- FE exam results, obtained from National Council of Examiners for Engineering and Surveying (NCEES)  
- Lab reports from ES 341 and CE 344  
- CE 438 capstone design project  
- ESM 450 feedback form  
- CE 438, CE302, CE 331, or CE 432  
- ESM 450, CE331  
- CE 438, CE341, CE 490, CE491  
- ESM 450  
- CE 438, CE 491, CE 334  
- CE 302, CE 490, CE326  
- CE 438, ESM 422  
- CE 438, CE 326, or CE 341 | Nationwide exam, required for all CE students, administered every semester  
Student work samples collected every 2nd year by instructor, scored by three faculty members, based on established standard rubrics  
Student work samples collected every 2nd year by instructor, scored by three faculty members, based on established standard rubrics  
Each student ranks the other members of his team, annually |

Submitted by: Silke Schiewer May 2016