

UNIVERSITY OF ALASKA FAIRBANKS
Student Learning Outcomes Assessment Plan
Bachelor of Science in Civil Engineering
College of Engineering and Mines

Expanded Statement of Institutional Purpose	Intended Objectives/Outcomes	Assessment Criteria and Procedures	Implementation (what, when, who)
<p>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.</p> <p>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.</p>	Students have an ability to:	Student work samples obtained from the following classes/exams	
	a) apply knowledge of mathematics, science, and engineering.	FE exam results, obtained from National Council of Examiners for Engineering and Surveying (NCEES)	Nationwide exam, required for all CE students, administered every semester
	b) design and conduct experiments, analyze and interpret data	Lab reports from ES 341 and CE 344	Student work samples collected every 2 nd year by instructor, scored by three faculty members, based on established standard rubrics
	c) design a system, component, or process to meet desired needs within realistic constraints.	CE 438 capstone design project	
	d) function on multi-disciplinary teams	ESM 450 feedback form	Each student ranks the other members of his team, annually
	e) identify, formulate, and solve engineering problems	CE 438, CE302, CE 331, or CE 432	Student work samples collected every 2 nd year by instructor, scored by three faculty members, based on established standard rubrics
	f) understand of professional and ethical responsibility	ESM 450, CE331	
	g) communicate effectively	CE 438, CE341, CE 490, CE491	
	h) understand the impact of engineering solutions in a broader context	ESM 450	
	i) recognize the need for, and engage in lifelong learning	CE 438, CE 491, CE 334	
	j) knowledge of contemporary issues	CE 302, CE 490, CE326	
	l) use modern engineering tools	CE 438, ESM 422	
	k) knowledge of northern issues	CE 438, CE 326, or CE 341	