UNIVERSITY OF ALASKA FAIRBANKS

Student Learning Outcomes Assessment Plan

BS – Aerospace Engineering

College of Engineering and Mines (CEM)

Mechanical Engineering (ME) Dept

Proposal 2023

Expanded Statement of Institutional Purpose	Intended Objectives/Outcomes	Assessment Criteria and Procedures	Implementation (what, when, who)
MISSION STATEMENT: To offer the highest quality, contemporary education at the undergraduate and graduate levels and to perform research appropriate to the technical needs of the State of Alaska, the nation and the world **GOAL STATEMENT:** 1. To offer an Aerospace Engineering program designed to prepare for its graduates for careers at the professional level; 2. To provide continuing educational opportunities for graduate engineers; 3. To serve as a resource of technical knowledge for the state as well as the nation.	*Students will be able to apply engineering knowledge and standards to solve problems, analyze and interpret data, and design experiments.*	*Faculty Course Assessment Reports (FCAR)* - *FCAR are completed on a 2-year rotating cycle.* - *FCAR use targeted assessment tools (eg, exam problems) to assess student performance.* *Senior capstone design projects reports.*	*FCAR generated on a 2-year rotating cycle by faculty responsible for the course and collected by the ABET coordinator.* *FCAR results evaluated by entire faculty in department meetings and summarized by the ABET coordinator.* *Collect capstone projects each year by the instructor.*
	Students will be able to communicate effectively, participate on multi- disciplinary teams, and design systems under realistic constraints.	*Senior capstone design course.* *Each student must contribute to written progresses reports, and a final report.* *Each student must contribute to the final oral presentation to a public audience.* *Each senior capstone design team creates a 3-min video summarizing this project to a general audience on Youtube* *This assessments are also used for the UAF Communication Requirement.*	*Final oral presentations assessed by associated members of the Mechanical Engineering and Electrical & Computer Engineering faculty, final reports are assessed by the design project faculty adviser/mentor.* *Videos are collected and assessed by the instructor of record for the design course*
	Students will develop the skills necessary to compete in both the local and global engineering economy.	*Senior exit survey.*	*Student exit surveys are conducted, collected, and summarized yearly by the ME department chair.*

Submitted by:

	Students will have an understanding of professional and ethical responsibility, and a knowledge of contemporary issues.	*Student assessment via FCAR.* *National Council of Examiners for Engineering and Surveying (NCEES) Fundamentals of Engineering (FE) Exam*	*FCAR generated on a 2-year rotating cycle by faculty responsible for the course. FCAR results evaluated by entire faculty in department meetings.* *FE exams results are analyzed by (TBD faculty) and summaries provided and discussed at end-of-year faculty meetings.*

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