University of Alaska Fairbanks

Student Learning Outcomes Assessment Plan

MS (Mining Engineering)

College of Engineering and Mines

May 2021

Expanded Statement of Institutional Purpose	Intended Objective/Outcomes	Assessment Criteria and Procedures	Implementation (what, when, who)
Mission Statement: To provide a high-quality education in mining engineering	Communication skills learning outcome Upon completion of the master's degree, a student at the master's level will demonstrate marked improvement in appropriate oral and written communication skills in the technical aspects of mining engineering.	For this learning outcome, appropriate assessment rubric that can be used are: • Performance in MIN class presentations and reports in graduate level courses; • Successful research presentation and defense; • Research presentation(s) at technical meetings; • Technical papers published in journals (for students in previous accreditation cycle)	Assessment done by ALL faculty at admission stage to determine English communication skills Research Product Assessment: Graduate advisory committee at the defense Coursework Assessment: By the instructor during assessment cycle
	Acquisition of Advanced Knowledge, Skills and Competencies achieved by the students: Ability to undertake appropriate research using advanced tools and techniques; scholarly or creative endeavors, and contribute to their discipline; ability to teach, often at the collegiate level; and ability to find employment in the professional field, or a related field.	For this learning outcome, appropriate assessment rubric that can be used are: • Review of graduate coursework • Review of research • Review of responsible assignments such as teaching or research assistantships	Research Product Assessment: Graduate advisory committee at the defense Coursework Assessment: By the instructor during assessment cycle
	High Quality Graduate Program: This is indicated by the quality of incoming students, the performance of students and the quality of the programs as reflected in the grades in given graduate courses, the performance of students on qualifying examinations, the number of refereed journal publications, and the career advancement opportunities obtained after leaving graduate studies.	Review of rubrics during assessment <u>Rubrics</u> • Test scores • MS GPA • Availability of student funding • Industry experience before entering program • Performance in comprehensive exam • Peer review publications of MS work (may only be available after accreditation cycle) • Placement after graduation • Graduate coursework offered by Department	Assessment done by ALL faculty at admission stage to determine technical competence Program Assessment during assessment cycle

Submitted by: Tathagata Ghosh