Engineering Management 5 year assessment plan

PROGRAM LEARNING OUTCOMES (PLOS)

	Students graduating with a M.S. in Engineering Management degree from Cal State East Bay will be able to:	I.L.O Alignment
a	Develop advanced analytical skills in optimization, planning and control, and other quantitative management techniques.	1, 6
b	Effectively manage teams of multi-disciplinary and multi-cultural professionals.	3, 4
c	Understand the impact of engineering and management decisions in a global, economic, environmental, and societal context.	5
d	Have the ability to effectively and persuasively communicate	2
e	Recognize the need for; and have the ability to engage in, life-long learning.	2, 6

’ Year 1: 2023-2024 ’	
1. Which PLO(s) to assess	PLO a - Develop advanced analytical skills in optimization, planning and control and other quantitative management techniques (ILO 1, 6)
2. Is it aligned to an ILO?	Yes (ILO 1, 6)
3. Course name and number	INDE 620 System Modeling with Simulation
4. SLO from course	Use queuing theory to measure system performance and to design systems -Conduct simulation studies for system design and performance measurements -Interpret simulation results and recommend system improvements
5. Assessment activity	Queuing midterm exam question
6. Assessment Instrument	Department rubric
7. R	

’ Year 2: 2024-2025 ’	
1. Which PLO(s) to assess	PLO b - Effectively manage teams of multi-disciplinary and multi-cultural professionals. (ILO 3,4)
2. Is it aligned with ILO?	Yes, (ILO 3,4)
3. Course name and number	ENGR 670 Design and Management of Human Work Systems
4. SLO from the course	Ability to apply learned concepts and tools to improve organizational performance in novel situations. Understand the function and management of professionally and culturally diverse teams. Ability to

6. Assessment instrument	Department rubric
7. Responsible person(s)	Prof. Bowen
8. Strategies on reporting (how, to who)	The results (quantitative and qualitative) will be reported by faculty to the department chair via completion of the course Faculty Self-Assessment form.
9. Strategies on closing the loop	Interaction between chair, faculty and industrial advisory board
10. Time (which semester(s))	Spring 2026

’ Year 4: 2026-2027 ’
1.

Year 5: 2027-2028	
1. Which PLO(s) to assess	PLO e - Recognize the need for, and have an ability to engage in, life-long learning (ILO 2,6)
2. Is it aligned to an ILO?	Yes, ILO 2, 6
3. Assessment activity	Capstone project
4. Assessment instrument	Department rubric
5. Sample (courses/# of students)	ENGR 693A Applied Research in Engineering Management
6. SLO from the course	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. Ability to communicate engineering management concepts and results orally and in writing.
7. Time (which semester(s))	Spring 2028
8. Responsible person(s)	Prof. Motavalli
9. Strategies on reporting (how, to who)	The results (quantitative and qualitative) will be reported by faculty to the department chair through course self assessment form
10. Strategies on closing the loop	Interaction between chair, faculty and industrial advisory board