

BS Construction Management 5 Year Assessment Plan

PROGRAM LEARNING OUTCOMES (PLOS)

Students graduating with a B.S. in Construction Management will be able to:
on

<i>PLO 1</i> <i>ILO 6</i>	(1) An ability to identify, formulate, and solve broadly defined technical problems by applying knowledge of mathematics and science and/or engineering to areas relevant to construction.
<i>PLO 2</i> <i>ILO 1,6</i>	(2) An ability to formulate or design a system, process, procedure or program to meet desired needs.
<i>PLO 3</i> <i>ILO 4,5</i>	(3) An ability to develop and conduct experiments or test hypotheses, analyze and interpret data and use construction science and professional judgement to draw conclusions.
<i>PLO 4</i> <i>ILO 2</i>	(4) An ability to communicate effectively with a range of audiences.
<i>PLO 5</i> <i>ILO 5,6</i>	(5) An ability to understand ethical and professional responsibilities and the impact of technical and/or scientific solutions in global, economic, environmental, and societal contexts.
<i>PLO 6</i> <i>ILO 3,4</i>	(6) An ability to function effectively on teams that establish goals, plan tasks, meet deadlines, and analyze risk and uncertainty

Five Year Plan

Year 1: 2023-2024	
<i>1. Which PLO(s) to assess</i>	PLO (1) An ability to identify, formulate, and solve broadly defined technical problems by applying knowledge of mathematics and science and/or engineering to areas relevant to construction. (ILO 6)
<i>2. Is it aligned to an ILO?</i>	Yes, ILO 6
<i>3. Sample (courses/# of students)</i>	b-CMGT 310 Statics and Strength of Materials
<i>4. SLO from course</i>	b - Create free-body diagrams and apply the concepts of particle and rigid-body equilibrium.
<i>5. Assessment indicators</i>	b-Final exam question;
<i>6. Assessment Instrument</i>	Program rubric
<i>7. Time (which semester(s))</i>	b-Fall 2023;
<i>8. Responsible person(s)</i>	b-Prof. Motavalli

9. <i>Ways of reporting (how, to who)</i>	The results (quantitative) will be reported by faculty to the department chair via completion of the course Faculty Self-Assessment form.
10. <i>Ways of closing the loop</i>	Interaction between chair, faculty and industry advisory board

Year 2: 2024-2025	
1. <i>Which PLO(s) to assess</i>	PLO (2) An ability to formulate or design a system, process, procedure or program to meet desired needs. Have experience in solving real life problems. (ILO 1,6)
2. <i>Is it aligned to an ILO</i>	Yes, ILO 1,6
3. <i>Sample (courses/# of students)</i>	h-CMGT 440; Construction Project Management;
4. <i>SIO from the course</i>	Determine accurate costs and schedules for maintaining projects within budget and time constraints. Identify project delivery methods and associated risks. Analyze contractual information and bidding and procurement processes.
5. <i>Assessment indicators</i>	h-Project and exams;
6. <i>Assessment instrument</i>	Program rubric
7. <i>Time (which semester(s))</i>	h-Fall 2024;
8. <i>Responsible person(s)</i>	h-TBD;
9. <i>Ways of reporting (how, to who)</i>	The results (quantitative) will be reported by faculty to the department chair via completion of the course Faculty Self-Assessment form.
10. <i>Ways of closing the loop</i>	Interaction between chair, faculty and industrial advisory board

Year 3: 2025-2026	
1. Which PLO(s) to assess	PLO (3) An ability to develop and conduct experiments or test hypotheses, analyze and interpret data and use construction science and professional judgement to draw conclusions. (ILO 4,5)
2. Is it aligned with ILO	Yes, ILO 4,5
3. Course name and number	CMGT 360; Soil Mechanics and Building Foundations
4. SLO from the course	d- Analyze the properties of different types of soil.
5. Assessment indicators	d-Laboratory Project
6. Assessment Instrument	Program rubric
7. Time (which semester(s))	d-Spring 2026
8. Responsible person(s)	d-Prof. Astaneh
9. Ways of 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.
10. Ways of closing the loop	Interaction between chair, faculty and industry advisory board

Year 4: 2026-2027	
1. Which PLO(s) to assess	PLO (4) An ability to communicate effectively with a range of audiences. (ILO 2)
2. Is it aligned with ILO	Yes, ILO 2
3. Course name and number	CMGT 350
4. SLO from the course	c- Create and organize a construction schedule. Apply different project planning techniques such as CPM and PERT. Use techniques and tools needed to program and manage a schedule through use of computer software.
5. Assessment indicators	c-Oral presentation rubric
6. Sample (courses/# of students)	c-CMGT 350
7. Time (which semester(s))	c-Fall 2026
8. Responsible person(s)	c-Prof. Shahbodaghlou
9. Ways of reporting (how, to who)	The results (qualitative) will be reported by faculty to the department chair via completion of the course Faculty Self-Assessment form.
10. Ways of closing the loop	Interaction between chair, faculty and industry advisory board

Year 5: 2027-2028

1. <i>Which PLO(s) to assess</i>	PLO (5) An ability to understand ethical and professional responsibilities and the impact of technical and/or scientific solutions in global, economic, environmental, and societal contexts. (ILO 5,6)
2. <i>Is it aligned with ILO</i>	Yes, ILO 5,6
3. <i>Assessment indicators</i>	a- Final exam performance
4. <i>Assessment Instrument</i>	Program rubric
5. <i>Sample (courses/# of students)</i>	a- CMGT 430
6. <i>SLO from course</i>	a. Students will identify the fundamental elements of sustainability 2. Students understand the Green Building Assessment methods (such as LEED) and apply them to a building 3. Students will evaluate the sustainability of a new or existing construction (Life Cycle Analysis, LCA) 4. Students will describe indoor environmental quality issues and problems, including Sick Building Syndrome (SBS).
7. <i>Time (which semester(s))</i>	a-Fall 2027
8. <i>Responsible person(s)</i>	a-Prof. Gaedicke
9. <i>Ways of reporting (how, to who)</i>	The results (quantitative) will be reported by faculty to the department chair via completion of the course Faculty Self-Assessment form.
10. <i>Ways of closing the loop</i>	Interaction between chair, faculty and industry advisory board

Year 5: 2027-2028

1. <i>Which PLO(s) to assess</i>	PLO (6) An ability to function effectively on teams that establish goals, plan tasks, meet deadlines, and analyze risk and uncertainty. (ILO 3,4)
2. <i>Is it aligned with ILO</i>	Yes, ILO 3,4
3. <i>Assessment indicators</i>	a- Course Project performance
4. <i>Assessment Instrument</i>	Program rubric
5. <i>Sample (courses/# of students)</i>	a- CMGT 493
6. <i>SLO from course</i>	a. Work as a team to create a response for an RFP for a design-build project being built in the community. Create a schematic design and the rest of the requirements for response to an RFP and present that to an interview panel.
7. <i>Time (which semester(s))</i>	a-Spring 2028
8. <i>Responsible person(s)</i>	a-Prof. Shahbodaghlou
9. <i>Ways of reporting (how, to who)</i>	The results (quantitative) will be reported by faculty to the department chair via completion of the course Faculty Self-Assessment form.
10. <i>Ways of closing the loop</i>	Interaction between chair, faculty and industry advisory board