

**Student Learning Outcomes (SLO)
Course Learning Outcomes (CLO)**

12/11/2019

AY 2018-2019 Final Direct Assessment Results Scorecard

SLO	ACCE SLO Description	Course Number and Name	Course CLO #	Course CLO Description	Tool	Assessment Performance Criteria			Goal Met
						Stated *	Fall '18	Spring '19	
#1	Create written communications appropriate to the construction discipline.	CMGT 460, Legal Aspects	#1	Be able to prepare a written report/analysis of a construction project and/or dispute, addressing contract preparation, contractor performance, owner breach, and the contractor's damages.	Arbitration Brief Paper	85%/73%	94%/73%	Not Required	Yes
#2	Create oral presentations appropriate to the construction discipline.	CMGT 332, Construction Methods Analysis	#1	Have created several oral presentations to demonstrate their knowledge of construction methods analysis.	Assignment 10	85%/73%	100%/73%	92%/73%	Yes
#3	Create a construction project safety plan.	CMGT 360, Construction Project Management	#8	Create a project specific safety plan, including site utilization, job hazard analysis, and tool box meetings.	Homework #4	85%/73%	87%/73%	Not Required	Yes
#3	Create a construction project safety plan.	CMGT 360, Construction Project Management	#8	Create a project specific safety plan, including site utilization, job hazard analysis, and tool box meetings.	Writing Assignment #2	85%/73%	88%/73%	Not Required	Yes
#4	Create construction project cost estimates.	CMGT 450, Construction (Building) Estimating	#7	Create a preliminary estimate consisting of direct costs, indirect costs and margin.	Lab 7	85%/73%	73%/73%	83%/73%	No
#4	Create construction project cost estimates.	CMGT 450, Construction (Building) Estimating	#7	Create a preliminary estimate consisting of direct costs, indirect costs and margin.	Lab 8	85%/73%	80%/73%	73%/73%	No
#4	Create construction project cost estimates.	CMGT 458, Heavy Construction Estimating	#11	Be able to create an Earthwork Cost Estimate.	Labs 1-8	85%/73%	85%/73%	Not Required	Yes
#5	Create construction project schedules.	CMGT 457, Project Control and Scheduling	#1, #2	Create project schedules using logic and sequencing of work to determine milestones and project durations	Lab 4	85%/73%	75%/73%	76%/73%	No
#5	Create construction project schedules.	CMGT 457, Project Control and Scheduling	#5	Analyze project control documents (including narratives) and know how they fit into the construction process.	Lab 6B	85%/73%	78%/73%	85%/73%	Yes
#5	Create construction project schedules.	CMGT 457, Project Control and Scheduling	#5	Analyze project control documents (including narratives) and know how they fit into the construction process.	Lab 6C	85%/73%	55%/73%	78%/73%	No
#6	Analyze professional decisions based on ethical principles.	CMGT 450, Construction (Building) Estimating	#6	Analyze various ethical dilemmas and potential options to reach an ethical decision as it applies to construction estimating.	Activity 8	85%/73%	96%/73%	Not Required	Yes
#6	Analyze professional decisions based on ethical principles.	CMGT 460, Legal Aspects	#2	Be able to analyze fact patterns, involving the construction profession, based upon ethical principles.	Ethical Analysis Paper	85%/73%	Not Assessed	89%/73%	Yes

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#7	Analyze construction documents for planning and management of construction processes.	CMGT 457, Project Control and Scheduling	#4	Understand and use construction documents that are used on projects to manage progress	Lab 5A	85%/73%	64%/73%	81%/73%	No
#7	Analyze construction documents for planning and management of construction processes.	CMGT 457, Project Control and Scheduling	#4	Analyze how costs and schedules are related.	Lab 5B	85%/73%	71%/73%	65%/73%	No
#8	Analyze methods, materials, and equipment used to construct projects.	CMGT 332, Construction Methods Analysis	#2	Have analyzed construction documents and project models to plan and determine the means and methods to manage a construction project.	Quiz 2	85%/73%	81%/73%	81%/73%	No
#8	Analyze methods, materials, and equipment used to construct projects.	CMGT 335, Construction Equipment	#2	Be able to balance a load and haul operation using the correct number of haul units and calculate the production rate.	Quiz 4	85%/73%	74%/73%	92%/73%	Yes
#9	Apply construction management skills as an effective member of a multi-disciplinary team.	CMGT 332, Construction Methods Analysis	#3	Have participated on a multi-disciplinary team to apply construction method analysis principles and concepts to a construction project.	Assignment 8	85%/73%	90%/73%	Not Required	Yes
#10	Apply electronic-based technology to manage the construction process.	CMGT 457, Project Control and Scheduling	#3	Apply P6 scheduling software and MS Excel to plan and manage construction progress.	Lab 3B	85%/73%	88%/73%	Not Required	Yes
#10	Apply electronic-based technology to manage the construction process.	CMGT 457, Project Control and Scheduling	#3	Apply P6 scheduling software and MS Excel to plan and manage construction progress.	Lab 3C	85%/73%	86%/73%	Not Required	Yes
#11	Apply basic surveying techniques for construction layout and control.	CMGT 330, Principles of Soil Mechanics and Foundations	#3	Using conventional equipment, perform simple operations to illustrate the principles of horizontal and vertical control.	Final Exam	85%/73%	33%/73%	83%/73%	No
#12	Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process	CMGT 360, Construction Project Management	#6	Be familiar with contract pricing methods to include Negotiated, Sole Source, Lump Sum, Unit Price, Cost Plus, Guarantee Maximum Price, and have an understanding of contract procurement management for all delivery systems.	Homework #2	85%/73%	91%/73%	Not Required	Yes

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#12	Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process	CMGT 360, Construction Project Management	#6	Be familiar with contract pricing methods to include Negotiated, Sole Source, Lump Sum, Unit Price, Cost Plus, Guarantee Maximum Price, and have an understanding of contract procurement management for all delivery systems.	Quiz #3	85%/73%	57%/73%	73%/73%	No
#12	Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process	CMGT 360, Construction Project Management	#6	Be familiar with contract pricing methods to include Negotiated, Sole Source, Lump Sum, Unit Price, Cost Plus, Guarantee Maximum Price, and have an understanding of contract procurement management for all delivery systems.	Exam #1	85%/73%	58%/73%	79%/73%	No
#13	Understand construction risk management.	CMGT 460, Legal Aspects	#3	Be able to recognize, in the construction management field, risks and understand the options available to manage these risks.	Exam	85%/73%	76%/73%	71%/73%	No
#14	Understand construction accounting and cost control.	CMGT 455, Construction Cost Management	#4	Understand simple construction accounting operations and the basic elements of cost control.	Activity 4	85%/73%	83%/73%	94%/73%	Yes
#15	Understand construction quality assurance and control.	CMGT 455, Construction Cost Management	#6	Understand how Quality Assurance and Quality Control are linked to the overall health of a construction project and how they are different. Reinforce the relationship between good quality and project performance.	Activity 6	85%/73%	85%/73%	Not Required	Yes

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#16	Understand construction project control processes.	CMGT 455, Construction Cost Management	#1	Understand the components of the main types of project controls	Activity 1	85%/73%	69%/73%	95%/73%	Yes
#17	Understand the legal implications of contract, common, and regulatory law to manage a construction project.	CMGT 462, Construction Contracts	#4	Understand organization of and primary Federal and CA State Labor Laws.	Red Flagg Clauses	85%/73%	80%/73%	Not Assessed	No
#18	Understand the basic principles of sustainable construction.	CMGT 235, Electrical and Mechanical Systems	#1	Understand sustainable options for plumbing systems	Quiz 12	85%/73%	92%/73%	Not Required	Yes
#19	Understand the basic principles of structural behavior.	CMGT 345, Mechanics of Materials	#3	Demonstrate the ability to construct shear force and bending moment diagrams for transversely loaded elements.	Final Exam	85%/73%	94%/73%	Not Required	Yes
#19	Understand the basic principles of structural behavior.	CMGT 345, Mechanics of Materials	#4	Demonstrate the ability to analyze and design steel and timber beams for shear and moment and to check beam deflections under given	Final Exam	85%/73%	94%/73%	Not Required	Yes
#19	Understand the basic principles of structural behavior.	CMGT 345, Mechanics of Materials	#6	Demonstrate the ability to analyze steel and timber columns	Final Exam	85%/73%	94%/73%	Not Required	Yes
#20	Understand the basic principles of mechanical, electrical and plumbing systems.	CMGT 235, Electrical and Mechanical Systems	#2	#4 Understand fundamental properties of plumbing systems, such as pressure, velocity, and flow rate. #5. Understand plumbing components using correct terminology and nomenclature.	Final Exam	85%/73%	84%/73%	70%/73%	No

* The first percentage represents the percentage of students scoring above the minimum score.
 The second percentage represents the minimum score.
 Therefore, the stated performance criteria is defined that X% of students shall score X%, or greater, on a given assessment.

Student Learning Outcomes (SLO)
AY 2018-2019 Final Indirect Assessment Results Scorecard

12/11/2019

					<i>The Alumni and Employers Survey's are administered every other year. These results are from AY 2017-2018.</i>					
SLO	ACCE SLO Description	Stated * Performance Criteria	Senior Survey Average Score	Senior Survey Goal Met	Alumni Survey Average Score	Alumni Survey Goal Met	Employer Survey Average Score	Employer Survey Goal Met	Total Average Score	Overall Goal Met
#1	Create written communications appropriate to the construction discipline.	3.5/5.0	4.47	Yes	4.44	Yes	3.77	Yes	4.23	Yes
#2	Create oral presentations appropriate to the construction discipline.	3.5/5.0	4.46	Yes	3.96	Yes	3.95	Yes	4.12	Yes
#3	Create a construction project safety plan.	3.5/5.0	4.46	Yes	3.59	Yes	3.30	No	3.78	Yes
#4	Create construction project cost estimates.	3.5/5.0	4.53	Yes	4.30	Yes	3.61	Yes	4.15	Yes
#5	Create construction project schedules.	3.5/5.0	4.47	Yes	4.15	Yes	3.60	Yes	4.07	Yes
#6	Analyze professional decisions based on ethical principles.	3.5/5.0	4.53	Yes	4.22	Yes	4.00	Yes	4.25	Yes
#7	Analyze construction documents for planning and management of construction processes.	3.5/5.0	4.50	Yes	4.41	Yes	3.86	Yes	4.26	Yes
#8	Analyze methods, materials, and equipment used to construct projects.	3.5/5.0	4.46	Yes	4.37	Yes	3.81	Yes	4.21	Yes
#9	Apply construction management skills as an effective member of a multi-disciplinary team.	3.5/5.0	4.49	Yes	4.41	Yes	4.09	Yes	4.33	Yes
#10	Apply electronic based technology to manage the construction	3.5/5.0	4.39	Yes	4.41	Yes	4.16	Yes	4.32	Yes

Student Learning Outcomes (SLO) AY 2018-2019 Final Indirect Assessment Results Scorecard

SLO	ACCE SLO Description	Stated *	Senior Survey		Alumni Survey		Employer Survey		Total Average Score	Overall Goal Met
		Performance Criteria	Average Score	Goal Met	Average Score	Goal Met	Average Score	Goal Met		
#11	Apply basic surveying techniques for construction layout and control.	3.5/5.0	4.21	Yes	3.33	No	3.29	No	3.61	Yes
#12	Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.	3.5/5.0	4.39	Yes	4.07	Yes	3.62	Yes	4.03	Yes
#13	Understand construction risk management.	3.5/5.0	4.44	Yes	4.04	Yes	3.47	No	3.98	Yes
#14	Understand construction accounting and cost control.	3.5/5.0	4.43	Yes	3.96	Yes	3.47	No	3.95	Yes
#15	Understand construction quality assurance and control.	3.5/5.0	4.47	Yes	4.19	Yes	3.57	Yes	4.08	Yes
#16	Understand construction project control processes.	3.5/5.0	4.36	Yes	4.07	Yes	3.51	Yes	3.98	Yes
#17	Understand the legal implications of contract, common, and regulatory law to manage a construction project.	3.5/5.0	4.49	Yes	4.30	Yes	3.63	Yes	4.14	Yes
#18	Understand the basic principles of sustainable construction.	3.5/5.0	4.33	Yes	3.81	Yes	3.54	Yes	3.89	Yes
#19	Understand the basic principles of structural behavior.	3.5/5.0	4.38	Yes	4.08	Yes	3.62	Yes	4.03	Yes
#20	Understand the basic principles of mechanical, electrical and plumbing systems.	3.5/5.0	4.39	Yes	3.59	Yes	3.45	No	3.81	Yes
<p>* The first number represents the minimum stated performance criteria. The second number represents the maximum allowable score.</p>										