

Student Learning Outcomes (SLO)
Course Learning Outcomes (CLO)
AY 2017-2018 Direct Assessment Results Scorecard

SLO	ACCE SLO Description	Course Number and Name	Course CLO #	Course CLO Description	Assessment Tool	Performance Criteria Stated *	Performance Criteria Reported	(Under) Over	Goal Met
#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	70%/70%	92%/70%	Over	Yes
#2	Create oral presentations appropriate to the construction discipline.	CMG 332, Construction Methods Analysis	#1	Have created several oral presentations to demonstrate their knowledge of construction methods analysis.	Assignment 10	70%/70%	82%/70%	Over	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.	Assignment 3	70%/70%	84%/70%	Over	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	70%/70%	81%/70%	Over	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 8	70%/70%	74%/70%	Over	Yes
#4	Create construction project cost estimates.	CMGT 458, Heavy Construction Estimating	#11	Be able to create an Earthwork Cost Estimate.	Activity 8	70%/70%	87%/70%	Over	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	70%/70%	92%/70%	Over	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 6B & 6C	70%/70%	81%/70%	Over	Yes

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#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	70%/70%	89%/70%	Over	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	70%/70%	90%/70%	Over	Yes
#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 & 5B	70%/70%	87%/70%	Over	Yes
#7	Analyze construction documents for planning and management of construction processes.	CMGT 457, Project Control and Scheduling	#6	Analyze how costs and schedules are related.	Lab 6D	70%/70%	95%/70%	Over	Yes
#7	Analyze construction documents for planning and management of construction processes.	CMGT 457, Project Control and Scheduling	#7	Analyze how durations are calculated using quantities, production rates and crew information.	Lab 6A	70%/70%	95%/70%	Over	Yes
#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	70%/70%	86%/79%	Over	Yes
#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	70%/70%	81%/70%	Over	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	70%/70%	80%/70%	Over	Yes

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#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 & 3C	70%/70%	81%/70%	Over	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.	In-Lab Assessment 1	70%/70%	85%/70%	Over	Yes
#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	#2	Understand different methods for project delivery and the responsibilities of those involved in the design and construction process.	Exam 1	70%/70%	75%/70%	Over	Yes
#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.	Final Exam	70%/70%	46%/70%	(Under)	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	70%/70%	72%/70%	Over	Yes
#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.	Quiz 2	70%/70%	59%/70%	(Under)	No

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#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.	Quiz 3	70%/70%	86%/70%	Over	Yes
#16	Understand construction project control processes.	CMGT 455, Construction Cost Management	#1	Understand the components of the main types of project controls	Quiz 1	70%/70%	36%/70%	(Under)	No
#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.	Evaluate 21 Chapters of California Labor Code	70%/75%	80%/75%	Over	Yes
#17	Understand the legal implications of contract, common, and regulatory law to manage a construction project.	CMGT 462, Construction Contracts	#6	Understand and Analyze Federal, California State, and Private entity Project Contracts, Subcontracts, and Purchase Orders.	Evaluation of Published Contract Forms	70%/75%	64%/75%	(Under)	No
#18	Understand the basic principles of sustainable construction.	CMGT 235, Electrical and Mechanical Systems	#1	Understand sustainable options for plumbing systems	Exam 1	70%/70%	84%/70%	Over	Yes
#18	Understand the basic principles of sustainable construction.	CMGT 235, Electrical and Mechanical Systems	#2	Understand sustainable options for mechanical systems	Exam 2	70%/70%	52%/70%	(Under)	No
#18	Understand the basic principles of sustainable construction.	CMGT 235, Electrical and Mechanical Systems	#3	Understand sustainable options for electrical systems	Exam 3	70%/70%	73%/70%	Over	Yes

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#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.	Quiz 5	70%/70%	94%/70%	Over	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	70%/70%	88%/70%	Over	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 loading.	Quiz 8	70%/70%	71%/70%	Over	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 loading.	Final Exam	70%/70%	88%/70%	Over	Yes
#19	Understand the basic principles of structural behavior.	CMGT 345, Mechanics of Materials	#6	Demonstrate the ability to analyze steel and timber columns	Quiz 10	70%/70%	78%/70%	Over	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	70%/70%	88%/70%	Over	Yes

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#20	Understand the basic principles of mechanical, electrical and plumbing systems.	CMGT 235, Electrical and Mechanical Systems	#4, 5	#4 Understand fundamental properties of plumbing systems, such as pressure, velocity, and flow rate. #5. Understand plumbing components using correct terminology and nomenclature.	Exam 1	70%/70%	61%/70%	(Under)	No
#20	Understand the basic principles of mechanical, electrical and plumbing systems.	CMGT 235, Electrical and Mechanical Systems	#7, 8, 9	#7 Understand fundamental properties of HVAC systems. #8 Understand the psychrometric chart. #9 Understand HVAC components using correct terminology and nomenclature.	Exam 2	70%/70%	66%/70%	(Under)	No
#20	Understand the basic principles of mechanical, electrical and plumbing systems.	CMGT 235, Electrical and Mechanical Systems	#11, 12	#11 Understand the fundamental units of electricity, such as resistance, current, voltage, power, and energy, and solve problems using them. #12 Understand the advantages and disadvantages of different types of electrical systems such as AC versus DC, and Single-phase versus three-phase power	Exam 3	70%/70%	49%/70%	(Under)	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)

10/8/2018

AY 2017-2018 Indirect Assessment Results Scorecard

SLO	ACCE SLO Description	Stated Performance Criteria	Senior Survey		Alumni Survey		Employer Survey		Total	
			Average Score	Goal Met	Average Score	Goal Met	Average Score	Goal Met	Average Score	Goal Met
#1	Create written communications appropriate to the construction discipline.	4.0/5.0	4.39	Yes	4.44	Yes	3.77	No	4.20	Yes
#2	Create oral presentations appropriate to the construction discipline.	4.0/5.0	4.37	Yes	3.96	No	3.95	No	4.09	Yes
#3	Create a construction project safety plan.	4.0/5.0	4.20	Yes	3.59	No	3.30	No	3.70	No
#4	Create construction project cost estimates.	4.0/5.0	4.35	Yes	4.30	Yes	3.61	No	4.09	Yes
#5	Create construction project schedules.	4.0/5.0	4.37	Yes	4.15	Yes	3.60	No	4.04	Yes
#6	Analyze professional decisions based on ethical principles.	4.0/5.0	4.39	Yes	4.22	Yes	4.00	Yes	4.20	Yes
#7	Analyze construction documents for planning and management of construction processes.	4.0/5.0	4.44	Yes	4.41	Yes	3.86	No	4.24	Yes
#8	Analyze methods, materials, and equipment used to construct projects.	4.0/5.0	4.39	Yes	4.37	Yes	3.81	No	4.19	Yes
#9	Apply construction management skills as an effective member of a multi-disciplinary team.	4.0/5.0	4.47	Yes	4.41	Yes	4.09	Yes	4.32	Yes
#10	Apply electronic-based technology to manage the construction process.	4.0/5.0	4.52	Yes	3.33	No	4.16	Yes	4.00	Yes
#11	Apply basic surveying techniques for construction layout and control.	4.0/5.0	4.09	Yes	4.07	Yes	3.29	No	3.82	No

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			Average Score	Goal Met	Average Score	Goal Met	Average Score	Goal Met	Average Score	Goal Met
#12	Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process	4.0/5.0	4.39	Yes	4.04	Yes	3.62	No	4.02	Yes
#13	Understand construction risk management.	4.0/5.0	4.46	Yes	3.96	No	3.47	No	3.96	No
#14	Understand construction accounting and cost control.	4.0/5.0	4.40	Yes	3.96	No	3.47	No	3.94	No
#15	Understand construction quality assurance and control.	4.0/5.0	4.40	Yes	4.19	Yes	3.57	No	4.05	Yes
#16	Understand construction project control processes.	4.0/5.0	4.35	Yes	4.07	Yes	3.51	No	3.98	No
#17	Understand the legal implications of contract, common, and regulatory law to manage a construction project.	4.0/5.0	4.46	Yes	4.30	Yes	3.63	No	4.13	Yes
#18	Understand the basic principles of sustainable construction.	4.0/5.0	4.30	Yes	3.81	No	3.54	No	3.88	No
#19	Understand the basic principles of structural behavior.	4.0/5.0	4.42	Yes	4.08	Yes	3.62	No	4.04	Yes
#20	Understand the basic principles of mechanical, electrical and plumbing systems.	4.0/5.0	4.23	Yes	3.59	No	3.45	No	3.76	No
Summary			Senior Survey		Alumni Survey		Employer Survey		Total	
Performance Criteria Met			20		13		3		14	
Performance Criteria Not Met			0		7		17		3	