Assessment Record



Program: Construction and Building Science Technology

Assessment period:

2017 - 2018

Program or Department Mission:

The general mission of the construction program, as contained in the Mission of the College, is to offer programs and activities that reflect those characteristics that help define an educated person. These characteristics include a level of general education that enables the individual to understand his or her culture and environment; the development of skills in analysis, communication, quantification, and synthesis necessary for further growth as a lifelong member of society; the identification of a system of personal values based on accepted ethics that lead to civic and social responsibility; and the attainment of skills that enhance the development of leisure activities and a healthful lifestyle. These characteristics are attained not only through organized courses and programs, but also through a variety of social, cultural, civic and other educational activities that are offered based on the needs of the community.

Instructional Program Outcomes & Assessment Plan				
Intended Outcomes	Means of Assessment	Criteria for Success	Summary & Analysis of Assessment Evidence	Use of Results
 100% of employers surveyed will indicate that graduates were adequately prepared for entry level positions. 	Employer Surveys	100% of employers surveyed will indicate that graduates were adequately prepared for entry level positions.	100% of employers surveyed have indicated that graduates are adequately prepared for entry-level positions.	The intended outcome has been met. As graduation continues to increase compared to previous years, more effort will be placed on communicating with all employers of our graduates.

2. 100% of graduates will be employed in field, enrolled in college or in the military within one year of graduation.	Graduate Surveys	100% of graduates will be employed in field, enrolled in college or in the military within one year of graduation	100% of our graduates are currently employed within the construction or architecture industry.	Although the Objectives for this intended outcome have been met, CBST Program continually sets efforts to increase its graduates' employment rate.
3. 90% of graduates surveyed will report satisfaction with educational preparation	Graduate Surveys	95% of graduates surveyed will report satisfaction with educational preparation	90% of the graduates surveyed reported that the overall educational experience within the department was either excellent or good.	The intended outcome has been met. CBST is providing state-of-the-art education to its students. Furthermore, CBST is constantly evaluates and upgrades the required facilities for such education as necessary.
Plan submission date: 8/20/2019		Submitted by: Mike Safavi, /	AIC, CPC	

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Instructional Program Student Learning Outcomes & Assessment Plan				
Intended Outcomes	Means of Assessment	Criteria for Success	Summary & Analysis of Assessment Evidence	Use of Results
 Be able to solve construction management problems using mathematics, science and problem-solving skills 	Mastery of Course Student Learning Outcomes	Class outcome averages less than 3 will trigger changes in the course content prior to the next semester.	Mastery of course student learning outcomes was greater than three for each course covering these skills.	Objectives for these skills are met. Students confirm their skills through class exams and projects. SLOs are measured according to their performances.
2. Function effectively as a team member or as the leader of a team	Mastery of Course Student Learning Outcomes	Class outcome averages less than 3 will trigger changes in the course content prior to the next semester.	Mastery of course student learning outcomes was greater than three for each course covering these skills.	No changes are needed. Students show that their SLOs for this skill are greater than 3



Assessment period:

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3. Possess an understanding of professional and ethical responsibilities present in construction management	Mastery of Course Student Learning Outcomes	Class outcome averages less than 3 will trigger changes in the course content prior to the next semester.	Mastery of course student learning outcomes was greater than three for each course covering these skills.	Objectives are met. These objectives are part of every course in CBST Program. Further, SLOs confirms proper learning of these skills.
 Be able to communicate effectively using written and verbal assignments 	Mastery of Course Student Learning Outcomes	Class outcome averages less than 3 will trigger changes in the course content prior to the next semester.	Mastery of course student learning outcomes was greater than three for each course covering these skills.	Students are challenged through class projects and exams to demonstrate their ability for these skills. No changes are needed
5. Be able to plan, direct and coordinate construction projects	Mastery of Course Student Learning Outcomes	Class outcome averages less than 3 will trigger changes in the course content prior to the next semester.	Mastery of course student learning outcomes was greater than three for each course covering these skills.	Objectives have been met. Specific courses in CBST provide students with such skills.
Plan submission date: 8/20	/2019		Submitted by: Mike Safav	ri, AIC, CPC

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Course Student Learning Outcomes & Assessment Plan				
Intended Outcomes	Means of Assessment	Criteria for Success	Summary & Analysis of Assessment Evidence	Use of Results
AET 101s (Architectural Drawing) The student knows how to letter.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.01</u>	Objectives are met. Student SLOs along with class projects confirms the proper learning outcomes for these skills.



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AET 101s (Architectural Drawing) The student understands the concepts used in line value, orthographic projections, sections, isometric drawings and oblique drawings.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.43</u>	Objectives are met. Student SLOs along with class projects confirms the proper learning outcomes for these skills.
AET 101s (Architectural Drawing) The student knows how to dimension architectural working drawings.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>2.43</u>	<u>Objectives have not been</u> <u>met.</u> Instructor will modify or have one on one student instruction in the class to insure students are learning this required outcome.
AET 101s (Architectural Drawing) The student understands the concepts and techniques needed to draw freehand technical sketches.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.84</u>	Objectives are met. Instruction for this skill will continue to insure such SLO outcomes.

AET 101s (Architectural Drawing) The student understands how to layout and draw schedules for finishes, windows and doors.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>2.56</u>	<u>Objectives have not been</u> <u>met.</u> Instructor will modify or have one on one student instruction in the class to insure students are learning this required outcome.
AET 101s (Architectural Drawing) The student knows how to layout and draw a floor plan.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>2.52</u>	<u>Objectives have not been</u> <u>met.</u> Instructor will modify or have one on one student instruction in the class to insure students are learning this required outcome.
AET 101s (Architectural Drawing) The student knows how to draw elevations.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>2.52</u>	<u>Objectives have not been</u> <u>met.</u> Instructor will modify or have one on one student instruction in the class to insure students are learning this required outcome.

AET 101s (Architectural Drawing) The student knows how to layout and draw architectural details in a variety of scales.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>2.52</u>	Objectives have not been <u>met.</u> Instructor will modify or have one on one student instruction in the class to insure students are learning this required outcome.
AET 110 (Basic Architectural CAD) The student can use layers to organize the drawings.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>4.00</u>	Objectives are met.
AET 110 (Basic Architectural CAD) The student can plot drawings including multiple viewports.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>4.00</u>	Objectives are met

AET 110 (Basic Architectural CAD) The student can draw a floor plan.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>4.00</u>	Objectives are met
AET 110 (Basic Architectural CAD) The student can draw elevation.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>4.00</u>	Objectives are met
AET 110 (Basic Architectural CAD) The student can draw details.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>4.00</u>	Objectives are met

AET 110 (Basic Architectural CAD) The student can create schedules.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>4.00</u>	Objectives are met
AET 182a (Special Topics Architectural Desktop) The Student will be able to create details views using Autodesk Architecture Software.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.50</u>	Objectives are met
AET 182a (Special Topics Architectural Desktop) The Student will be able to create 3D architectural models using Autodesk Architecture Software.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>4.00</u>	Objectives are met

AET 182a (Special Topics Architectural Desktop) The Student will be able to create 2D working drawings from a 3D model.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a 3.75	Objectives are met
AET 191 (Basic Building Info. Modeling "BIM") The student will be knowledgeable about the basics of BIM software and how it can be used on the jobsite	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.35</u>	Objectives are met
AET 191 (Basic Building Info. Modeling "BIM") The student will be able to create 3d architectural models using BIM software.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a 3.05	Objectives are met

AET 191 (Basic Building Info. Modeling "BIM") The student will be able to create 2d working drawings from a 3d BIM model.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>4.00</u>	Objectives are met
AET 233 (Structural Design of Bldg.) The student knows how to design structural building components with wood.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.35</u>	Objectives are met
AET 233 (Structural Design of Bldg.) The student knows how to design structural building components with concrete.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <mark>2.95</mark>	Objectives have not been <u>met.</u> Instructor will modify or have one on one student instruction in the class to insure students are learning this required outcome.

AET 233 (Structural Design of Bldg.) The student knows how to design structural building components with steel.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.15</u>	Objectives are met
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AET 241 (Building Zoning Codes) The student has an understanding of fire and life safety principles, design, and terminology	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.46</u>	Objectives are met
AET 241 (Building Zoning Codes) The student has an understanding of code requirements, such as fire protection of structural systems, construction classifications, egress design, by testing procedures and fire rated opening protection.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.23</u>	Objectives are met

AET 241 (Building Zoning Codes) The student can practically applied building code requirements to typical examples of building planning practices.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.54</u>	Objectives are met
AET 241 (Building Zoning Codes) The student is familiar with zoning permit their application	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.23</u>	Objectives are met
AET 291 (Advanced Building Information Modeling - BIM) The student will be able to create architectural elements in a BIM model	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>4.00</u>	Objectives are met

AET 291 (Advanced Building Information Modeling - BIM) The student will be able to create structural elements in a BIM model	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>4.00</u>	Objectives are met
AET 291 (Advanced Building Information Modeling - BIM) The student will be able to create MEP elements in a BIM model	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.60</u>	Objectives are met
		Students are evaluated on a		
CDT 205 (Fundamentals of Surveying) The student is familiar with surveying instruments.	Instructor class evaluation of student learning outcomes form.	scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.00</u>	Objectives are met

CDT 205 (Fundamentals of Surveying) The student proficiently operates surveying equipment.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a 3.00	Objectives are met
CDT 205 (Fundamentals of Surveying) The student is knowledgeable of the correct manner for entering data in the field notebook.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.07</u>	Objectives are met
CDT 205 (Fundamentals of Surveying) The student understands the mathematics of surveying necessary to solve taping problems, transit problems, traverse and leveling problems.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a 3.27	Objectives are met

CDT 205 (Fundamentals of Surveying) The student is able to draw a site plan from surveying notes.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.20</u>	Objectives are met
CDT 205 (Fundamentals of Surveying) The student is able to work as a team in a survey party.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.67</u>	Objectives are met
CDT 225 (Mechanics and Strength of Structures) Determine the force acting through members of a trust by use of the method of joints and the method of sections.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>2.90</u>	Objectives have not been <u>met.</u> Instructor will modify or have one on one student instruction in the class to ensure students are learning this required outcome.

CDT 225 (Mechanics and Strength of Structures) Find pin reactions using the method of members and calculate support reactions.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.60</u>	Objectives are met
CDT 225 (Mechanics and Strength of Structures) Determine the centroid and moment of inertia of a composite shape beam.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.30</u>	Objectives are met
CDT 225 (Mechanics and Strength of Structures) Draw a load, sheer, and moment diagram for a loaded beam.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.20</u>	Objectives are met

CDT 225 (Mechanics and Strength of Structures) Determine the bending stress and shear stress for a loaded beam.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.00</u>	Objectives are met
CMT 101s (Construction Materials and Methods) The student understands the total building process for a construction project from the site instigation stage to the finish stage	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.25</u>	Objectives are met
CMT 101s (Construction Materials and Methods) The student is knowledgeable about the various materials used in each stage of construction.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.50</u>	Objectives are met

CMT 101s (Construction Materials and Methods) The student understands the techniques and methods used with the different materials commonly used in construction.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.88</u>	Objectives are met
CMT 101s (Construction Materials and Methods) The student knows the size of basic building components.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.25</u>	Objectives are met
CMT 101s (Construction Materials and Methods) The student has the ability to specify materials with essential characteristics, cost and performance in mind.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>2.75</u>	Objectives have not been <u>met.</u> Instructor will modify or have one on one student instruction in the class to ensure students are learning this required outcome.

CMT 102 (Const. Blueprint Reading) The student has acquired the ability to visualize the three basic views of the building from a pictorial view.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.54</u>	Objectives are met
CMT 102 (Const. Blueprint Reading) The student can identify the various parts of the building and location of its equipment from working drawings.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.62</u>	Objectives are met
CMT 102 (Const. Blueprint Reading) The student can use the architect scale to find dimensions and distances on working drawings.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a 3.62	Objectives are met

CMT 102 (Const. Blueprint Reading) The student has the ability to make mathematical calculations based on the drawings.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.54</u>	Objectives are met
CMT 102 (Const. Blueprint Reading) The student understands the specification documents and their application to the actual construction process.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.38</u>	Objectives are met
CMT 114 (OSHA Const. Safety) The student is familiar with OSHA's construction standards and related safety practices.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>4.00</u>	Objectives are met

CMT 114 (OSHA Const. Safety) The student is able to use the OSHA manual.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>4.00</u>	Objectives are met
CMT 120 (Const. Problem Solving) The student knows how to create a spreadsheet in Microsoft Excel.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.04</u>	Objectives are met
CMT 120 (Const. Problem Solving) The student knows how to work right triangle trig problems relating to the law of sign, law of cosign in sight layout.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.33</u>	Objectives are met

CMT 120 (Const. Problem Solving) The student can use a construction calculator to find lengths, areas, volumes, board feet, rafter lengths, stair layout, and other construction problems.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.27</u>	Objectives are met
CMT 140 (Concrete Testing) The student will understand how concrete develops strength through hydration.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.60</u>	Objectives are met
CMT 140 (Concrete Testing) The student will understand how strength is affected by composition.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a 3.70	Objectives are met

CMT 140 (Concrete Testing) The student will understand how strength is affected by curing conditions.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.90</u>	Objectives are met
CMT 161 (Intro. to Sustainable Construction) The student is familiar with sustainable construction practices and related efficiency standards.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.71</u>	Objectives are met
CMT 161 (Intro. to Sustainable Construction) The student is knowledgeable about the building science behind green construction.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.29</u>	Objectives are met

CMT 205s (Const. Management) The student understands the construction management topics of project delivery methods, contract pricing methods, subcontracting, and material management.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.24</u>	Objectives are met
CMT 205s (Const. Management) The student understands the construction management topics of submittals, project start up, field questions and progress payments.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.20</u>	Objectives are met
CMT 205s (Const. Management) The student understands the construction management topics of safety plans, change orders, disputes, and project closeout.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a 3.27	Objectives are met

CMT 205s (Const. Management) The student can perform value engineering calculations and analyze and earned value curve.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.30</u>	Objectives are met
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CMT 206 (Const. Estimating) The student understands that general methods and procedures that forms the basis for an effective estimating system.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.60</u>	Objectives are met
CMT 206 (Const. Estimating) The student can make quantity surveys from working drawings and specifications.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.40</u>	Objectives are met

CMT 206 (Const. Estimating) The student can develop unit costs for specific segments of the building project.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.30</u>	Objectives are met
CMT 206 (Const. Estimating) The student understands how to include sub- contractor costs in the overall project estimate.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.10</u>	Objectives are met
CMT 206 (Const. Estimating) The student understands the major considerations involved in the total pricing of a construction project.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.90</u>	Objectives are met

CMT 209 (Elec. & Mech. Equip. in Buildings) The student will design elements of a plumbing system.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.50</u>	Objectives are met
CMT 209 (Elec. & Mech. Equip. in Buildings) The student will design elements of electrical system.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.30</u>	Objectives are met
CMT 209 (Elec. & Mech. Equip. in Buildings) The student will design elements of HVAC systems.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.30</u>	Objectives are met

CMT 209 (Elec. & Mech. Equip. in Buildings) The student will be knowledgeable of hardware comprising the plumbing, HVAC and electrical systems.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.50</u>	Objectives are met
CMT 209 (Elec. & Mech. Equip. in Buildings) The student will be able to calculate the required load to identify electrical demand for a typical residential unit	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.40</u>	Objectives are met
CMT 209 (Elec. & Mech. Equip. in Buildings) The student will be able to calculate the required BTU to identify HVAC demand for a typical residential unit	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.40</u>	Objectives are met

CMT 217 (Software Applications in Construction) The student can identify Activities and their dependencies involved a typical construction project	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.60</u>	Objectives are met
CMT 217 (Software Applications in Construction) The student can use the list of activities to create a schedule and identify its critical path	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.42</u>	Objectives are met
CMT 217 (Software Applications in Construction) The student can revise a critical path schedule.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.30</u>	Objectives are met

CMT 217 (Software Applications in Construction) The student can use a CPM schedule to determine the required project duration and activity floats for a construction project.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a <u>3.30</u>	Objectives are met
CMT 217 (Software Applications in Construction) The student can create a CPM schedule on paper and by Microsoft Project 2013 computer scheduling software.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a 3.45	Objectives are met
CMT 217 (Software Applications in Construction) The student can create a CPM schedule for a small typical construction project from a set of construction documents.	Instructor class evaluation of student learning outcomes form.	Students are evaluated on a scale of 1 to 4. A score of 1 represents low comprehension and a score of 4 represents high comprehension of the outcome. Class averages let than 3 will trigger changes in the course content before the next semester.	The class average for this outcome is a 3.70	Objectives are met
Submission date: August	20, 2019	1	Submitted by: Mike Safavi	