**Program Outcomes and Course Alignment (POCA)**

**Program Name: Bachelor of Applied Science in Construction Management**

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| Program Outcomes: |  |
| Program Outcome 1: | Students will be able to identify safety hazards on a construction site and implement standard prevention measures to reduce risk. |
| Program Outcome 2: | Students will be able to apply, assess, and demonstrate management and communication skills required to complete a construction project. |
| Program Outcome 3: | Students will be able to demonstrate entry level competence in planning, analyzing, decision-making and problem-solving in construction to appropriately estimate costs and to successfully apply conventional scheduling skills to a construction project. |
| Program Outcome 4: | Students will be able to identify construction materials, describe the uses of those materials, and demonstrate the appropriate manner of assembly. |
| Program Outcome 5: | Students will be able to identify, understand and apply knowledge/skills of soils & foundations, structural systems, and building science to ensure appropriate construction methods are implemented on a construction site to meet building performance expectations. |
| Program Outcome 6: | Students will be able to identify, assess, and apply advanced management strategies to address complex risks (e.g. scheduling, cost-estimating, contracting, and staffing) common to construction projects. |
| Program Outcome 7: | Students will be able to apply basic materials testing skills and knowledge to determine the appropriateness of construction materials for specific applications based on fundamental structural and material tendencies and behavior. |
| Program Outcome 8: | Students will be able to identify and understand the fundamental components of common mechanical, electrical, and plumbing systems used in construction. |

For each program course, indicate how the course will support the program level outcomes. For example, if course WXYZ 1234 introduces students to one of the program outcomes, then enter “I” for that specific program outcome. Please note that a course can be “I”, “P”, “E” and/or “A” in any program outcome.

**Program Map ▼**

I=Introduced P=Practiced E=Emphasized A=Assessed

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| Program Courses |  | Program Outcome 1 | Program Outcome 2 | Program Outcome 3 | Program Outcome 4 | Program Outcome 5 | Program Outcome 6 | Program Outcome 7 | Program Outcome 8 |
| **OSHT 1305** | **OSHA Regulations** | IPEA | E | E | P |  |  |  |  |
| **CNBT 1311** | **Construction Method and Materials** | IPE | P | PE | IPEA |  |  | I |  |
| **CNBT 2342** | **Construction Management I** | E | IPEA | IP |  |  |  |  |  |
| **CNBT 2304** | **Construction Method and Material II** | PE |  | PE | IPEA |  |  | I, P, E |  |
| **CNBT 1300** | **Residential and Light Commercial Blueprint Reading** |  | IP | PE | E |  |  |  |  |
| **CNBT 1280** | **Cooperative Education** | PE | PE | PE | IPE |  | I | I |  |
| **CNBT 1359** | **Project Scheduling** |  | P | IPEA |  |  | I, P |  |  |
| **CNBT 1346** | **Construction Estimating, I** | E | P | IPEA |  |  | I, P |  |  |
| **CNBT 1342** | **Building Codes and Inspections** | E | P | IE | PE |  |  | I, P |  |
| **CNBT 2310** | **Commercial / Industrial Blueprint Reading** |  |  |  |  |  |  |  |  |
| **BMGT 1305** | **Communications in Management** |  | IPE | PE |  |  |  |  |  |
| **CNBT 2340** | **Mechanical, Plumbing, & Electrical Systems in Construction II (Commercial)** | IE | P | P | PE |  |  |  | I, P, E,  |
| **CNBT 1315** | **Field Engineering, I** | IPE | PE | P | IPE |  |  |  |  |
| **CNBT 2344** | **Construction Management II** | E | E | PE |  |  |  |  |  |
| **ABSC 3410** | **Applied Building Science** |  |  |  |  | I, P, E, A |  |  |  |
| **CMGT 3310** | **Building Information Modeling for Constructors** |  |  |  |  | I, P | I, P |  |  |
| **CMGT 3305** | **Construction Estimating II** |  |  |  |  |  | P, E,  |  | I,P,E,A |
| **CMGT****3315** | **Construction Structural Systems** |  |  |  |  | (PLO#5) |  |  |  |
| **CMGT 3325** | **Construction Technology** |  |  |  |  |  |  |  | I, P, E |
| **CMGT 3320** | **Construction Project Planning** |  |  |  |  |  | P, E,  |  |  |
| **CMGT 4305** | **Construction Materials Testing and Inspections** |  |  |  |  |  |  | P, E, A |  |
| **CMGT 4310** | **Soils and Foundations** |  |  |  |  |  |  | (PLO#7) |  |
| **CMGT 4315** | **Construction Project Management** |  |  |  |  |  |  P, E,  |  |  |
| **CMGT 4322** | **Engineered Construction Systems** |  |  |  |  | I, P, E, A |  |  |  |
| **CMGT 4320** | **Construction Law and Ethics** |  |  |  |  |  | I, P, E |  |  |
| **CMGT 4325** | **Construction Leadership** |  |  |  |  |  | P, E | P, E |  |
| **CMGT 4330** | **Construction Management Capstone** |  |  |  |  | P, E | P, E, A | P, E | P, E |

**Developing an Assessment Plan for Program Level Outcomes**

Review existing assessment methods and current practices for collecting/gathering student data to identify direct and indirect methods of assessment. Remember that the data will need to be gathered, analyzed, and used to support the program’s continuous improvement processes.

Program Learning Outcomes and assessment measures have been defined for program outcomes 5-8. As a result, there is a table below that explains very specifically how program outcomes 5-8 will be assessed. The assessment plans for outcomes 5-8 will be defined more specifically as upper division course curricula are more fully developed.

**Assessment Plan for Lower Division Construction Management Program Outcomes**

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| PLO #5Students will be able to identify, understand and apply knowledge/skills of soils & foundations, structural systems, and building science to ensure appropriate construction methods are implemented on a construction site to meet building performance expectations. | 1.) Exam #3 in ABSC 3410 – Applied Science 1.) Comprehensive Exam 2 in CMGT 4310 -Construction Soils and Foundations | 1.) 80% of students will score at or above a 70% or better on ABSC 3410 Exam 2.2.) 80% of students will score at or above 70% or better on the comprehensive Exam 2 in CMGT 4310 – Construction Soils and Foundations. |
| PLO#6Students will be able to identify, assess, and apply advanced management strategies to address complex risks (e.g. scheduling, cost-estimating, contracting, and staffing) common to construction projects. | 1.) Comprehensive Mid Term Exam for PLO #6 in CMGT 4330 - Construction Management Capstone | 1. 80% of students will score at or above 70% or better on comprehensive Mid Term Exam in CMGT 4330 Capstone Course.
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| PLO#7Students will be able to apply basic materials testing skills and knowledge to determine the appropriateness of construction materials for specific applications based on fundamental structural and material tendencies and behavior. | 1.) Comprehensive Final Exam PLO #7 in CMGT 4305 - Construction Testing & Materials  | 1. 80% of students will score at or above 70% or better on comprehensive Final Exam in CMGT 4305 Construction Testing and Materials Course
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| PLO#8Students will be able to identify and understand the fundamental components of common mechanical, electrical, and plumbing systems used in construction. | 1. Comprehensive Mid Term Exam for PLO #8 in CMGT 3305 -Estimating II
 | 1. 80% of students will score at or above 70% or better on the Mid Term Exam in CMGT 3305 Estimating II.
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