



Degree Program Assessment - CMGT - BSCM for 2020

Degree code: CMGT

Degree type: BSCM

Degree title: Construction Management

Assessment year: 2020-21

Matrix (Enter 3 or 4 rows):

Student Learning Outcome #1-5:

Of the first 5 ACCE Student Learning Outcomes, all 5 outcomes were assessed this year (full 3-year rotation schedule of all outcomes measured per year available in notes field at end of form):

1. Create written communications
2. Create oral presentations appropriate to the construction disciplines.
3. Create construction project safety plan.
4. Create construction project cost estimates.
5. Create construction project schedule

Measure(s):

Student Learning Outcome 1 as measured in CONS 4030 Construction Safety

Course Learning Outcome aligned with ACCE Student Learning Outcome 1:

- A. Produce a safety handout & safety outline for an assigned topic

Student Learning Outcome 2 as measured in CONS 4047/4048 Advanced Construction Projects

Course Learning Outcome aligned with ACCE Student Learning Outcome 2:

- F. Make a team presentation

Student Learning Outcome 2 as measured in CONS 4030 Construction Safety

Course Learning Outcome aligned with ACCE Student Learning Outcome 2:

- B. Make an effective presentation on the assigned topic

Student Learning Outcome 3 as measured in CONS 4030 Construction Safety

Course Learning Outcome aligned with ACCE Student Learning Outcome 3:

- F. Write a research paper on an assigned safety plan topic for a specific trade

Student Learning Outcome 4 as measured in CONS 3018/3019 Construction Quantity Estimating

Course Learning Outcomes aligned with ACCE Student Learning Outcome 4:

- A. Search the bid documents for procedures & costs
- C. Identify the trades and calculate productivity rate, total workhours, total days and labor, materials and equipment unit costs and total costs
- D. Evaluate the soils report and perform quantity takeoff for the excavation, concrete and roofing
- E. Calculate the project overhead. Selected subs and completed the Condensed Estimate Summary form
- F. Calculate the percentage overhead items and bond premium

G. Complete the Unbalanced Bid Form

H. Complete the bid forms correctly and submit at a simulated public bid opening

Student Learning Outcome 5 as measured in CONS 4005/4006

Course Learning Outcomes aligned with ACCE Student Learning Outcome 5:

A. Develop a logic network with design, procurement and construction activities along with a crew utilization chart

B. Develop an activity listing and corresponding durations for a construction project.

C. Create a Time Scaled logic Network

D. Calculate the activity event times and durations and determine the event times for a project

E. Recognize resource requirements and allocate these requirements to the schedule

Student Learning Outcome 5 as measured in CONS 4047/4048 Advanced Construction

Projects Course Learning Outcomes aligned with ACCE Student Learning Outcome 5:

E. Create schedules from a digital set of plans

Target(s):

For each measure embedded in courses, the target for student performance is that 70% of the students will attain a 70% or higher score on the evaluation of the assignment.

Does this degree program have an online version?:

No

Student Learning Outcome #6-10:

Of ACCE Student Learning Outcomes 6-10, all outcomes were assessed this year (full 3-year rotation schedule of all outcomes measured per year available in notes field at end of form):

6. Analyze professional decisions based on ethical principles.
7. Analyze construction documents for planning and management of construction processes
8. Analyze methods, materials, and equipment.
9. Create construction project cost estimates
10. Apply electronic-based technology to manage construction projects.

Measure(s):

Student Learning Outcome 6 as measured in CONS 3018/3019 Construction Quantity Estimating

Course Learning Outcome aligned with ACCE Student Learning Outcome 6:

B. Analyze bidding ethics situations

Student Learning Outcome 7 as measured in CONS 4047/4048 Advanced Construction Projects

Course Learning Outcome aligned with ACCE Student Learning Outcome 7:

C. Identify the steps of the Engineering, Procurement and Construction (EPC) process

Student Learning Outcome 8 as measured in CONS 1020/1021 Materials and Testing

Course Learning Outcome aligned with ACCE Student Learning Outcome 8

A. Describe the various types and qualities of aggregates, including sampling techniques, gradation, unit weight,

specific gravity, compliance with specifications & standard lab testing methods

Student Learning Outcome 9 as measured in CONS 4047/4048 Advanced Construction Projects

Course Learning Outcome aligned with ACCE Student Learning Outcome 9

D. Each team will perform the functions necessary to complete a construction project from a digital set of plans

Student Learning Outcome 10 as measured in CONS 4047/4048 Advanced Construction Projects

Course Learning Outcomes aligned with ACCE Student Learning Outcome 10

A. Each individual will perform the BIM software functions with the ability to manipulate different 3D models

B. Identify specific information in both the 2D and 3D formats.

Student Learning Outcome 10 as measured in CONS 4005/4006 Construction Scheduling

Course Learning Outcomes aligned with ACCE Student Learning Outcome 10

F. Create a plan and schedule a complete construction project and publish the project construction

G. Create a schedule, resource allocation, and cost allocation using a construction scheduling software program

Target(s):

For each measure embedded in courses, the target for student performance is that 70% of the students will attain a 70% or higher score on the evaluation of the assignment.

Student Learning Outcome #11-15:

Of ACCE Student Learning Outcomes 11-15, outcomes 13 and 15 were assessed this year (full 3-year rotation schedule of all outcomes measured per year available in notes field at end of form):

13. Understand Construction risk management

15. Understand construction quality assurance and control.

Measure(s):

Student Learning Outcome 13 as measured in CONS 4030

Course Learning Outcomes aligned with ACCE Student Learning Outcome 13

C. Identify the content of an effective Safety and Health accident prevention training program

D. Describe the safety responsibilities of the employees, supervisors and contractors that is directed towards the Focused Four

E. Recognize and abate safety hazards covering the Focused Four, Construction Subparts A – CC, confined space, silica, respirators, asbestos, cadmium and lockout/tagout

Student Learning Outcome 15 as measured in CONS 1020/1021

Course Learning Outcomes aligned with ACCE Student Learning Outcome 15

B. Create a of hot mix asphalt, including basic properties, mix design methods, liquid asphalts, production and placement

C. Perform material testing procedures on aggregates and create concrete mix designs in the laboratory

D. Determine the aggregates for Portland Cement concrete, including basic engineering related properties, mix design methods, mixing, placing and curing of concrete, and lab methods for testing compressive and flexural strength.

E. Discuss the properties of steel and other metals, including stress and strain, Modulus of

Elasticity, behavior under load, and strength of bolted connections.

F. Describe the properties of wood, including terminology, wood products, grading of lumber and preservation.

Target(s):

For each measure embedded in courses, the target for student performance is that 70% of the students will attain a 70% or higher score on the evaluation of the assignment.

Student Learning Outcome #4:

Of ACCE Student learning Outcomes 16-20, outcome 18 was assessed this year (full 3-year rotation schedule of all outcomes measured per year available in notes field at end of form):

18. Understand the principles of sustainable construction.

Measure(s):

Student Learning Outcome 18 as measured in CONS 1020/1021

Course Learning Outcome aligned with ACCE Student Learning Outcome 18:

G. Identify sustainability, reuse and recycling principles

Target(s):

For each measure embedded in courses, the target for student performance is that 70% of the students will attain a 70% or higher score on the evaluation of the assignment.

Does this degree program have an online version?:

No

Notes (optional):

Course Evaluations Schedule (with ACCE aligned Student Learning Outcomes)

Spring/Summer 2018

CONS 1020 & 1021 Materials (ACCE SLOs 8,15,18)

CONS 1040/1041 Practices (ACCE SLOs 8,9)

CONS 3018/3019 Quantity Estimating (ACCE SLOs 4,6)

CONS 4030 Safety (ACCE SLOs 1,2,3,13)

CONS 4005/4006 Scheduling (ACCE SLOs 5,10)

CONS 4047/4048 Advanced Construction Projects (3D Model) (ACCE SLOs 2,5,7,9,10)

Spring/Summer 2019

CONS 1003 & 1004 Construction Graphics (ACCE SLO 8)

CONS 2015 Structures (ACCE SLO 19)

CONS 2008/2009 Construction Docs Plan Reading (ACCE SLO 8)

CONS 3030 Construction Admin (ACCE SLOs 6,16,17)

CONS 4045/4046 Digital Site (ACCE SLOs 2,10)

CONS 4008/4009 Cost Estimating (ACCE SLOs 4,6,8,14) CONS

3020 Mechanical and Electrical Systems (ACCE SLO 20)

Spring/Summer 2020

CONS 3015 Temporary Structures (Formwork & Rigging) (ACCE SLOs 8,19)

CONS 2011/2012 Surveying (ACCE SLOs 9,11)

CONS 4020 Exam Prep (ACCE SLOs 1-20 with emphasis on 1,7,14,16)

CONS 4040 Contracts (ACCE SLOs 1,6,12,13,17)

CONS 2016/2017 Computer Applications (ACCE SLOs 2,10)

CONS 2026.2027 Mechanical, Electrical Plumbing Plan Reading (ACCE SLO 20)

CONS 2030/2031 Soils & Test (ACCE SLOs 15,19)