Washtenaw Community College Comprehensive Report

CMG 170 Construction Graphics
Effective Term: Winter 2021

Course Cover

Division: Advanced Technologies and Public Service Careers
Department: Heating, Ventilation and A/C
Discipline: Construction Management
Course Number: 170
Org Number: 14750
Full Course Title: Construction Graphics
Transcript Title: Construction Graphics
Is Consultation with other department(s) required: No
Publish in the Following: College Catalog , Time Schedule , Web Page
Reason for Submission: Three Year Review / Assessment Report
Change Information:
Consultation with all departments affected by this course is required.
Course title
Course description
Pre-requisite, co-requisite, or enrollment restrictions
Outcomes/Assessment
Objectives/Evaluation
Rationale: Conditionally approved course seeking full approval. Adding outcomes and objectives to prepare for course assessment. Changes also need to be made to update course to meet industry requirements.
Proposed Start Semester: Fall 2020
Course Description: In this course, students will be introduced to the graphics communication used in the construction industry. Topics include symbols and conventions, terminology, plan organizations, basic material take-off techniques, labor and equipment, and construction math techniques. Students will use prints, drawings and CAD and will be required to sketch small construction projects.

Course Credit Hours

Variable hours: No
Credits: 3
Lecture Hours: Instructor: 45 **Student:** 45
Lab: Instructor: 0 **Student:** 0
Clinical: Instructor: 0 **Student:** 0

Total Contact Hours: Instructor: 45 **Student:** 45
Repeatable for Credit: NO
Grading Methods: Letter Grades
Audit
Are lectures, labs, or clinicals offered as separate sections?: NO (same sections)

College-Level Reading and Writing

College-level Reading & Writing

College-Level Math

Level 2

Requisites

General Education

Request Course Transfer

Proposed For:

Central Michigan University
Eastern Michigan University
Ferris State University
Lawrence Tech
Michigan State University
University of Michigan
Wayne State University

Student Learning Outcomes

1. Perform basic mathematical computations used in construction activities.
   Assessment 1
   Assessment Tool: Outcome-related exam questions
   Assessment Date: Winter 2021
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All sections
   Number students to be assessed: All students
   How the assessment will be scored: Answer key
   Standard of success to be used for this assessment: 70% of the students will score 75% or higher.
   Who will score and analyze the data: Departmental faculty

2. Identify symbols and abbreviations used in construction plans.
   Assessment 1
   Assessment Tool: Outcome-related exam questions
   Assessment Date: Winter 2021
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All sections
   Number students to be assessed: All students
   How the assessment will be scored: Answer key
   Standard of success to be used for this assessment: 70% of the students will score 75% or higher.
   Who will score and analyze the data: Departmental faculty

3. Locate materials, sizes and locations on a construction drawing.
   Assessment 1
   Assessment Tool: Outcome-related exam questions
   Assessment Date: Winter 2021
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All sections
   Number students to be assessed: All students
   How the assessment will be scored: Answer key
   Standard of success to be used for this assessment: 70% of the students will score 75% or higher.
   Who will score and analyze the data: Departmental faculty

4. Estimate materials quantities required using construction drawings.

Assessment 1

Assessment Tool: Outcome-related exam questions
Assessment Date: Winter 2021
Assessment Cycle: Every Three Years
Course section(s)/other population: All sections
Number students to be assessed: All students
How the assessment will be scored: Answer key
Standard of success to be used for this assessment: 70% of the students will score 75% or higher.
Who will score and analyze the data: Departmental faculty

Course Objectives

1. Use specific geometry needed for construction estimations.
2. Convert inches to feet using decimal equivalents.
3. Determine proper scale of materials.
4. Draw construction symbols.
5. Draw construction lines.
6. Use construction scales.
7. Recognize and correctly use abbreviations for specific construction terms.
8. Read and interpret construction drawings.
9. Calculate materials needed using construction drawings.
10. Calculate materials needed using specifications.
11. Determine the best procedures for ordering construction materials.
12. Determine the best procedures for determining crew sizes.
13. Use computer applications to open drawings, pdfs and excel sheets.

New Resources for Course

Course Textbooks/Resources

Textbooks
Manuals
Periodicals
Software

Equipment/Facilities

Level III classroom
Computer workstations/lab

Reviewer	Action	Date
Faculty Preparer:		
Cristy Lindemann	*Faculty Preparer*	*Aug 11, 2020*
Department Chair/Area Director:		
Brian Martindale	*Recommend Approval*	*Aug 12, 2020*
Dean:		
Jimmie Baber	*Recommend Approval*	*Aug 17, 2020*
Curriculum Committee Chair:		
Lisa Veasey	*Recommend Approval*	*Oct 26, 2020*
Assessment Committee Chair:		
Shawn Deron	*Recommend Approval*	*Oct 27, 2020*
Vice President for Instruction:		
Kimberly Hurns	*Approve*	*Oct 27, 2020*