### **CONS 74 Course Outline as of Fall 2021**

## **CATALOG INFORMATION**

Dept and Nbr: CONS 74 Title: CONST. SCHEDULING Full Title: Construction Project Scheduling Last Reviewed: 2/9/2015

| Units   |      | Course Hours per Week |      | Nbr of Weeks | <b>Course Hours Total</b> |       |
|---------|------|-----------------------|------|--------------|---------------------------|-------|
| Maximum | 1.50 | Lecture Scheduled     | 1.50 | 17.5         | Lecture Scheduled         | 26.25 |
| Minimum | 1.50 | Lab Scheduled         | 0    | 17.5         | Lab Scheduled             | 0     |
|         |      | Contact DHR           | 0    |              | Contact DHR               | 0     |
|         |      | Contact Total         | 1.50 |              | Contact Total             | 26.25 |
|         |      | Non-contact DHR       | 0    |              | Non-contact DHR           | 0     |

Total Out of Class Hours: 52.50

Total Student Learning Hours: 78.75

| Title 5 Category: | AA Degree Applicable                          |
|-------------------|---|
| Grading:          | Grade Only                                    |
| Repeatability:    | 00 - Two Repeats if Grade was D, F, NC, or NP |
| Also Listed As:   |   |
| Formerly:         |   |

### **Catalog Description:**

Construction scheduling types are explored: bar charts, S-curves, logical sequencing, and network diagrams. Introduces the use of computers in documenting Critical Path Method (CPM) in scheduling. The role of the schedule in project management is discussed.

**Prerequisites/Corequisites:** Course Completion of CONS 70A

**Recommended Preparation:** 

### **Limits on Enrollment:**

### **Schedule of Classes Information:**

Description: Construction scheduling types are explored: bar charts, S-curves, logical sequencing, and network diagrams. The use of computers in documenting Critical Path Method (CPM) schedules is introduced. The role of the schedule in project management is discussed. (Grade Only) Prerequisites/Corequisites: Course Completion of CONS 70A Recommended:

# **ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:**

| AS Degree:<br>CSU GE: | Area<br>Transfer Area | Effective:<br>Effective: | Inactive:<br>Inactive: |
|-----------------------|-----------------------|--------------------------|------------------------|
| <b>IGETC:</b>         | Transfer Area         | Effective:               | Inactive:              |
| CSU Transfer          | : Effective:          | Inactive:                |                        |
| UC Transfer:          | Effective:            | Inactive:                |                        |

### CID:

### **Certificate/Major Applicable:**

Both Certificate and Major Applicable

## **COURSE CONTENT**

### **Student Learning Outcomes:**

At the conclusion of this course, the student should be able to:

- 1. Interpret schedules constructed using various methods.
- 2. Complete a Critical Path Method (CPM) schedule for a project.

### **Objectives:**

Upon completion of this course the student will be able to:

- 1. Identify information needed to schedule a construction project.
- 2. Determine sequence of individual construction activities.
- 3. Document typical network pattern for sequence of activities.
- 4. Interpret bar charts, S-curves, logical sequencing and network diagrams.
- 5. Develop project schedules using the Critical Path Method.

## **Topics and Scope:**

- I. Planning for construction
  - A. Activity information needed to construct a schedule
  - B. Time information needed to construct a schedule
- II. Scheduling methods
- A. Bar charts
- B. S-curves
- C. Logical sequencing
- D. Network diagrams
- E. Fundamentals of Critical Path Method (CPM) scheduling
- III. Developing a project schedule
  - A. Diagramming alternatives
- B. Using CPM
- IV. Interprreting schedules for project management
  - A. Project schedules

- B. Summary bar charts
- C. Project status reports
- D. Cost control information

### Assignment:

Reading: 20 pages per week Homework: 3-4 problems per week Skill demonstration: weekly construction schedule exercises Quizzes: 2-4 Final exam

### Methods of Evaluation/Basis of Grade:

**Writing:** Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

None, This is a degree applicable course but assessment tools based on writing are not included because skill demonstrations are more appropriate for this course.

**Problem Solving:** Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Weekly homework assignments

**Skill Demonstrations:** All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Weekly construction schedule exercises

**Exams:** All forms of formal testing, other than skill performance exams.

Quizzes and final exam: multiple choice

**Other:** Includes any assessment tools that do not logically fit into the above categories.

None

| Writing<br>0 - 0% |
|-------------------|
|                   |

Problem solving 20 - 30%

| Skill Demonstrations |  |  |  |  |
|----------------------|--|--|--|--|
| 40 - 50%             |  |  |  |  |

Exams 20 - 30%

Other Category 0 - 0%

### **Representative Textbooks and Materials:**

Handbook for Construction Planning and Scheduling, A. Baldwin and D. Bordoli; Wiley, 2014 Microsoft Project 2013 - Step by Step, C. Chatfield and T. Johnson; Microsoft Press, 2013 Instructor prepared materials