

CONSTRUCTION TECHNOLOGY DEPARTMENT

COURSE SYLLABUS

COURSE NUMBER: **CNBT 2335 - Summer 2023 (6233-S8A)**

COURSE TITLE: **Computer-Aided Construction Scheduling**

CREDITS: 3 (3 lecture /Laboratory)

PREREQUISITE / COREQUISITE: CNBT 1201

Class	Class Title	Days & Times	Room	Class Dates
CNBT 2335-1 (12460)	Computer-Aided Construction Scheduling (Lecture/Lab)	Live Support Meeting	HCC Online	Jun 05, 2023- Jul 30, 2023

INSTRUCTOR

Eva Lyon, BSA, MCM, CDT, DE Instructor

Classroom: Online by Eagle Online (Canvas LMS)

Office Hours: **Tuesday** (Not Mandatory) by **Live Virtual Support Meeting** or by appointment (Cisco Webex). https://eagleonline.hccs.edu/courses/195108/external_tools/30443

Contact: By Eagle Online (Inbox in our Canvas Course) After Session begins: Include your Student ID number, Course name, and CRN number in the subject line on all messages. See syllabus and more information on the Learning web: <http://learning.hccs.edu/faculty/eva.lyon>

COURSE DESCRIPTION

Advanced construction scheduling utilizing computer scheduling software to perform various scheduling procedures.

END-OF-COURSE-OUTCOMES

Identify and select scheduling software programs; develop construction schedules with computer programs; and explain components and procedures in scheduling.

STUDENT LEARNING OUTCOMES	
SLO # 1	Explain safety practices and procedures
SLO # 2	Describe commonly used software used for project scheduling
SLO # 3	Explain components and procedures for scheduling projects
SLO # 4	Identify and select scheduling software used in construction
SLO # 5	Perform scheduling for a variety of projects

COURSE OBJECTIVES

Upon completion of this course, the student will:

- Explain safety practices and procedures
- Describe commonly used software used for project scheduling
- Define terms associated with construction project scheduling
- Describe factors that influence scheduling
- Explain components and procedures for scheduling projects
- Enumerate various software available for scheduling projects
- Identify the various methods used in construction scheduling
- Describe the role of spreadsheets in scheduling
- Recognize requirements in scheduling construction projects
- Describe methods and techniques for scheduling various types of construction projects
- Describe difference between residential and commercial projects
- Identify and select scheduling software used in construction
- Demonstrate dexterity in scheduling construction projects

STUDENT EVALUATION

The percentage of the total grade determined by each part of the course assessment sequence:

- | | |
|------------------------------------|-----|
| • Book Quizzes | 25% |
| • Assignments | 20% |
| • Middle Term Exam | 15% |
| • Attendance/Participation | 15% |
| • Exercises/Test in class | 10% |
| • Class Project/Final Presentation | 15% |

Total:

100%

(Instructor may modify the ratio)

GRADING PROCEDURE

A = 90 – 100

B = 80 – 89

C = 70 – 79

D = 60 – 69

F = below 59

TEXTBOOK:

Construction Project Scheduling and Control, 4th Edition

Saleh A. Mubarak

ISBN: 978-1-119-49980-0 & ISBN: 978-1-119-49983-1 Publisher: John Wiley & Sons Inc. @2019
978-1119499831

TABLE OF CONTENTS

Chapters:

- | | |
|--|--|
| 1 Introduction | 10 Scheduling as Part of the Project Management Effort |
| 2 Bar (Gantt) Charts | 11 Other Scheduling Methods |
| 3 Basic Networks | 12 Dynamic Minimum Lag Relationship |
| 4 The Critical Path Method (CPM) | 13 The Critical Path Definition: Revisited |
| 5 Precedence Networks | 14 Construction Delays and Other Claims |
| 6 Resource Allocation and Resource Leveling | 15 Schedule Risk Management |
| 7 Schedule Updating and Project Control | 16 BIM-Based 4D Modeling and Scheduling |
| 8 Schedule Compression and Time-Cost Trade-Off | 17 Project Scheduling for Owners |
| 9 Reports and Presentations | |

COURSE POLICIES

Attendance

Students are expected to attend classes regularly, and to be on time for every class period. Students can be dropped from a class due to excessive absences. Excessive tardiness may be considered absences. Students are responsible for subjects, assignments, and projects covered during their absences. Consult the **Student Handbook** for more details or visit <http://www.hccs.edu/hccs/current-students/student-handbook>

Academic Honesty

Scholastic dishonesty is treated with the utmost seriousness by the instructor and the College. Academic dishonesty includes, but it is not limited to the willful attempt to misrepresent one's work, cheat, plagiarize, or impede other students' scholastic progress. Consult the **Student Handbook** for more details.

Students with Disabilities

Any student with a documented disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) who needs to arrange reasonable accommodations must contact the **Disability Support Services Office** at his / her respective college at the beginning of each semester. Faculties are authorized to provide only the accommodations requested by the **Disability Support Services Office**. Central College, call 713-718-6164.

Cell Phones, iPhones, iPads and Electronic Devices

All cell phones must be muted, set to vibrate, or turned off during class. Electronic device activity during class is deemed disruptive to the academic process and will not be tolerated. If you need to make or receive an emergency call, please leave the classroom.

Parking Rules and Regulations

Students are required to follow HCC's regulations regarding parking and permits. For additional information, visit <http://www.hccs.edu/hccs/about-hcc/police/parking/parking-rules-and-regulations>

Books, Tools and Supplies

Students are required to purchase and bring to class the required textbooks, tools, notebooks, supplies, and writing instruments as required by the instructor.

Dress Code

Dress code must be appropriate for the class. Students must dress in a way that clothing and accessories do not compromise their safety, and the safety of others. Proper foot wear is required in all laboratories. Absolutely no sandals or other footwear that exposes the feet will be allowed.

Classroom & Laboratory Conduct

Proper behavior is expected in all classes and laboratories. Foul language and horseplay are not allowed. Making or receiving cell phone calls during class are not allowed. Sleeping in class is not allowed.

Course Withdrawal

It is the responsibility of the student to officially withdraw from a course before the official withdrawal deadline. A student who does not withdraw from a course by the deadline will receive an "F" as the final grade. Also note that under Section 51.907 of the Texas Education Code, an institution of higher education may not allow a student to drop more than six courses.

Discrimination

Students should be aware that discrimination and/or other harassment based on race, sex, gender identity and gender expression, national origin, religion, age, disability, sexual orientation, color or veteran status is prohibited by HCC Policy G.1 Discrimination and Harassment and D.1.1 Equal Educational Opportunities. Any student who feels they have been discriminated against or harassed on the basis of race, sex, gender identity, gender expression, national origin, religion, age, disability, sexual orientation, color or veteran status including sexual harassment, has the opportunity to seek informal or formal resolution of the matter.

All complaints/concerns should be directed to the Office of Institutional Equity, 713 718-8271 or oiie@hccs.edu. Additional information may be obtained online. Visit <http://www.hccs.edu/district/departments/institutionalequity/>. Complaints involving sexual misconduct to include but not limited to: sexual assault, stalking, dating violence, sexual harassment or domestic violence should be directed to the HCC Title IX Coordinator, Renée Mack at 713 718-8272 or renee.mack@hccs.edu