

FLORIDA STATE COLLEGE AT JACKSONVILLE

COLLEGE CREDIT COURSE OUTLINE

COURSE NUMBER: BCN 2721

COURSE TITLE: Construction Scheduling

PREREQUISITE(S): None

COREQUISITE(S): None

CREDIT HOURS: 3

CONTACT HOURS/WEEK: 3

CONTACT HOUR BREAKDOWN:

 Lecture/Discussion: 3

 Laboratory:

 Other _____:

FACULTY WORKLOAD POINTS: 3

STANDARDIZED CLASS SIZE ALLOCATION: 30

CATALOG COURSE DESCRIPTION:

The application of the critical path method and program evaluation review technique to construction planning, scheduled vs. actual job expenditures, cost forecasting, development of unit prices from field data.

SUGGESTED TEXT(S): 1CPM in Construction Management by: O'Brien, James J. Plotnick, Fredric L. ISBN: 0071457690

IMPLEMENTATION DATE: Fall Term, 2007 (20081)

REVIEW OR MODIFICATION DATE: Fall Term, 2008 (20091) - Outline Review 2007

COURSE TOPICS	CONTACT HOURS
(Each chapter will be typically one class meeting - 1 hour long)	
I. Part 1: Introduction to CPM Planning and Scheduling	7.5
A. Introduction to CPM Planning and Scheduling	
B. Project Control Systems Evolve in Academia	
C. Project Control Systems Evolve in the Marketplace	
II. Part 2: The Theory of CPM Planning and Scheduling	7.5
A. Your New Tool--Read Before Using	
B. Network Construction	
C. The Durations of the Logic Network	
D. What Comes Out	
E. Cranking the Engine	
F. Adding Complexity	
G. PDM and Precedence Networks	
H. Respecting the Power of PDM	
I. Enhancements and Extensions by Software Vendors	
III. Part 3: The Tools of CPM Planning and Scheduling	7.5
A. Measure Twice--Cut Once	
B. Choosing Codes	
C. Acquiring Information to Initial Schedule	
D. Acquiring the Durations	
E. Specifying the Relationships Between Activities	
F. Example Project: The John Doe Project	
IV. Part 4: The Practice of CPM Planning	7.5
A. Equipment and Workforce Planning	
B. Procurement	
C. Preconstruction	
D. Evolution of the Project Schedule	
E. CPM and Cost Control	
V. Part 5: The Practice of CPM Scheduling	7.5
A. Let's Look Under the Hood at the Engine	
B. Converting the Team Plan to the Calculated Schedule	
C. Engineer's Review of the Submitted Initial CPM	
D. Updating the Schedule	
E. Engineer's Review of the Submitted Update	
F. Revising the Logic Network	

COURSE TOPICS	CONTACT HOURS
G. Engineer's Review of the Submitted Revision H. Case Histories I. Additional Exercises for Students of Project Controls	7.5
VI. Part 6: Advanced Topics	7.5
A. Specifying CPM B. CPM in Claims and Litigation C. Delay Analysis D. Disruption Analyses E. Advanced Topics: Resource Leveling and Smoothing F. Advanced Topics: PERT, SPERT, and GERT G. Conclusion	

PROGRAM TITLE: Building Construction Technology

COURSE TITLE: Construction Scheduling

CIP NUMBER: 0615.100101

LIST PERFORMANCE STANDARDS ADDRESSED:

NUMBER(S): TITLES(S):

09.0 PLAN, COORDINATE, SCHEDULE AND CONTROL PROJECTS--The student will be able to:

- 09.01 Prepare daily time sheets.
- 09.02 Record and control materials received.
- 09.03 Allocate efficient use of site space.
- 09.04 Maintain clean and orderly construction site.
- 09.05 Store materials and equipment.
- 09.06 Describe units of work measurement.
- 09.07 Coordinate and control use of construction tools and equipment.
- 09.08 Prepare progress billing.
- 09.09 Store chemicals and paints.
- 09.10 Prepare work schedules.
- 09.11 Prepare material delivery schedules.
- 09.12 Expedite delivery of manufactured materials.
- 09.13 Analyze productivity.
- 09.14 Prepare sub-trades schedules.
- 09.15 Prepare and code daily costs.
- 09.16 Record deficiencies as a result of project inspections.
- 09.17 Prepare coded cost break downs.
- 09.18 Take appropriate action to correct project deficiencies.
- 09.19 Interpret computer output.
- 09.20 Prepare cash flow schedules.
- 09.21 Prepare schedules for computer input.
- 09.22 Develop and maintain coded cost systems.
- 09.23 Prepare critical path schedule.
- 09.24 Monitor schedule to control project.



NOTE: Use either the Tab key or mouse click to move from field to field. The box will expand to accommodate your entry.

Section 1 COURSE PREFIX AND NUMBER: <u>BCN 2721</u>	SEMESTER CREDIT HOURS: <u>3</u>
COURSE TITLE: <u>CONSTRUCTION SCHEDULING</u>	

Section 2
 TYPE OF COURSE: (Click on the box to check all that apply)

<input type="checkbox"/> AA Elective	<input type="checkbox"/> AS Required Professional Course	<input type="checkbox"/> College Prep
<input checked="" type="checkbox"/> AS Professional Elective	<input type="checkbox"/> AAS Required Professional Course	<input type="checkbox"/> Technical Certificate
<input type="checkbox"/> Other _____		
<input type="checkbox"/> General Education: (For General Education courses, you must also complete Section 3 and Section 7)		

Section 3 (If applicable)
 INDICATE BELOW THE DISCIPLINE AREA FOR GENERAL EDUCATION COURSES:

<input type="checkbox"/> Communications	<input type="checkbox"/> Social & Behavioral Sciences	<input type="checkbox"/> Mathematics
<input type="checkbox"/> Natural Sciences	<input type="checkbox"/> Humanities	

Section 4
 INTELLECTUAL COMPETENCIES:

<input checked="" type="checkbox"/> Reading	<input checked="" type="checkbox"/> Speaking	<input checked="" type="checkbox"/> Critical Analysis	<input checked="" type="checkbox"/> Quantitative Skills	<input checked="" type="checkbox"/> Scientific Method of Inquiry
<input checked="" type="checkbox"/> Writing	<input checked="" type="checkbox"/> Listening	<input type="checkbox"/> Information Literacy	<input type="checkbox"/> Ethical Judgment	<input type="checkbox"/> Working Collaboratively

	LEARNING OUTCOMES	METHOD OF ASSESSMENT
•	STUDENT WILL BE ABLE TO UNDERSTAND THE CRITICAL PATH METHOD (CPM) METHOD OF SCHEDULING	LECTURE/PROJECTS/EXAMS
•	PREPARE AND USE CPM SCHEDULING ON CONSTRUCTION PROJECTS	LECTURE/PROJECTS/EXAMS
•	PREPARE, USE AND INTERPRET ALL TYPES OF SCHEDULING SYSTEMS USED IN CONSTRUCTION	LECTURE/PROJECTS/EXAMS
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Section 6
 Name of Person Completing This Form: JOHN ADCOX Date: 9/01/06