COURSE OUTLINE

CONS 274 – CONSTRUCTION MANAGEMENT

Prepared By:  Joseph Reilly
CONS 274 – CONSTRUCTION MANAGEMENT

A. **TITLE:** INTRO TO CONSTRUCTION

B. **COURSE NUMBER:** CONS 274
   **SHORT TITLE:**

C. **CREDIT HOURS:** 3

D. **WRITING INTENSIVE COURSE (OPTIONAL):** N/A

E. **COURSE LENGTH:** 15 weeks

F. **SEMESTER(S) OFFERED:** Spring

G. **HOURS OF LECTURE, LABORATORY, RECITATION, TUTORIAL, ACTIVITY:**
3 – 1 hour lectures per week

H. **CATALOGUE DESCRIPTION:** Construction management fundamentals and their applications to the conduct of a construction business. Construction estimating, scheduling (using CPM), production rate calculations and construction contract issues are studied.

I. **PRE-REQUISITES/CO-COURSES:** None

J. **GOALS (STUDENT LEARNING OUTCOMES):**
   By the end of this course, the student will:

<table>
<thead>
<tr>
<th>Course Objective</th>
<th>Institutional SLO</th>
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<tbody>
<tr>
<td>a) Use appropriate vocabulary in discussing fundamental features of a construction contract</td>
<td>1. Communication</td>
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<td>3. Professional Competence</td>
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<td>b) Perform a quantity takeoff from an engineering drawing</td>
<td>3. Professional Competence</td>
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<td>c) Create a detailed estimate using catalogued price data (eg., RS Means, National Construction Estimator)</td>
<td>3. Professional Competence</td>
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<td>d) Perform a square foot, systems, and assemblies estimate</td>
<td>3. Professional Competence</td>
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<td>e) Create a CPM network diagram manually and determine ES, EF, LS, LF and total float</td>
<td>3. Professional Competence</td>
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<td>f) Use Electronic Software to display a schedule (ie., MS Project, Timberline, Suretrack)</td>
<td>3. Professional Competence</td>
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K. **TEXTS:** (Varies by term and Instructor)
   Construction Management Fundamentals, 2nd Ed.,

L. **REFERENCES:**
   Engineering News Record, Civil Engineering

M. **EQUIPMENT:** None

N. **GRADING METHOD:** (P/F, A-F, etc.) A - F
O. **MEASUREMENT CRITERIA/METHODS:**
Students are evaluated through a combination of written homework assignments, calculation-type assignments, prepare an estimate (project), and exams.

P. **DETAILED TOPICAL OUTLINE:**
I. Construction Contracts
   a. Project Organization and Delivery Methods
   b. Contract Types
   c. Bid and Award
   d. Bonding
   e. Extensions
   f. Change Orders

II. Estimating Fundamentals
   a. Types of Estimates
   b. Take Offs
   c. Obtaining Prices
   d. The extension
   e. Assembling the estimate (adjusting for overhead, etc.,)

III. Scheduling Fundamentals
   a. Bar Charts
   b. Critical Path Method
   c. Resource Leveling
   d. Creating a schedule using Microsoft Project

Q. **LABORATORY OUTLINE:** NA