**Florida Institute of Technology**

**ADDING A NEW COURSE TO THE CURRICULUM**

This is a request for reactivation of a course in the system. □ Yes  □ No

**New courses are available beginning with the fall term in which they appear in the University Catalog.**

**SUBJECT**  **COURSE NO.**  **CREDIT HOURS**  **ACADEMIC YEAR TO BE ADDED TO THE FILE**  **CLASS HOURS**  **LECTURE HOURS**  **LAB HOURS**  **SCHEDULE TYPE**  **CONTACT HOURS (CEU ONLY)**

| (e.g., CSE) | 4090 | 1-3 | Fall 2017 | 15-45/sem. | 15-45/sem. | □ Yes □ No |

*Justify level if 1000-level, and no co- or prerequisites.*

**SPECIAL TOPICS APPROPRIATE FOR UNDERGRADUATE SENIOR STUDENTS**

**DEPARTMENT**  **COMPUTER TITLE**  **SPECIAL TOPICS in CON**  **SCHEDULE TYPE**  **REPEATED**

| Civil Engineering & Construction Management | Spec Topics in CON | Special Topics (S) | Restricted to 25 characters, including spaces |

**DEPARTMENT**  **COMPUTER TITLE**  **SPECIAL TOPICS in Construction Management**

**CATALOG DESCRIPTION OF COURSE**  **Restricted to 350 characters, including spaces**

Present advanced topics in construction management. Requires extensive student participation. Includes topics relevant to student interest and faculty expertise. (Requirement: Senior standing and department head approval.)

This description has been approved by the catalog office.  

**EMT Joe 2/17/2017**

Catalog & Curriculum Manager

**In addition, please attach a course syllabus and/or more detailed description.**

**REQUIREMENTS**

| **Restrictions** | **Course Number** | **Corequisite** | **Course Number** | □ and □ or |

**ADDITIONAL RESTRICTION**

| □ Yes □ No | Will this course be used to measure program-level student learning outcomes? If yes, review and signature required.** |

**APPROVALS:** On completion of description and course number verification, affix appropriate signatures as indicated, and submit to the Office of Graduate Programs, or Undergraduate Curriculum Committee Chair for placement on agenda.

**Chair, Graduate Council**  **Date**

**Chair, Undergraduate Curriculum Committee**  **Date**

**CATALOG & CURRICULUM MANAGER**

These changes/additions have been made for the University Catalog and entered into the BANNER term named above.

**Date**

Florida Institute of Technology • Office of the Registrar

150 West University Boulevard, Melbourne, FL 32901-6975 • (321) 674-8114 • Fax (321) 674-7827

**FEB 9 2017**

Office of the Dean

**REGISTRAR’S USE ONLY**

SCORSE  SCADTL  SCAPREQ  SCARBDE  SCARDES  CIP Code  Open or Init.

**ACADLG**
CON 4090: Special Topics in Construction Management

2017-2018 Catalog Data: Advanced topics in construction management in which a formal course does not exist at Florida Tech. Classes are conducted on a seminar basis with extensive student participation. Topics are chosen according to student interest and faculty expertise.

Credits & Contact Hours: 1-3 credits, 15-45 classroom hours

Required or Elective or Selected Elective: Restricted Elective

Prerequisite: Senior Standing and Department Head Approval

Grading Policy:
- Homework (50%)
- Project (50%)

Grading System:
- A = 90-100 %
- B = 80-89%
- C = 70-79%
- D = 60-69%
- F = 0-59%

Textbook: Textbook references will be provided to the students as appropriate for the selected topic.

Course Outcome: Students completing the course should be able to:
1. Develop a basic understanding of the specific topic being presented in the course.
2. Identify and formulate construction management problems using knowledge gained from the course.
3. Apply techniques, skills, and tools learned in the course for solving problems in the construction management field.

Topics Covered & Associated Time: Following is an example of the topics covered in a 3-credit course in Building Information Modeling (BIM). Specific topics would be selected from this list based on the number of credits (1-3) of the course.
1. Introduction to Building Information Modeling (5 class hours)
   a. Definitions & Terminologies
   b. BIM versus Traditional CAD
   c. Parametric Modeling & Spatial Coordination
2. BIM Use Cases (5 class hours)
   a. Roles & Responsibilities of Project Team Members
   b. BIM Workflow and Federated Models
3. Advanced BIM Methods (10 class hours)
   a. Design Integration: Architectural, Structural, and MEP
   b. Parametric Modeling for Cost Estimating
   c. Planning, Coordination, and Scheduling
4. BIM Technology (5 class hours)
   a. Technology Overview & Definitions
Outcomes Assessment Matrix for CON 4090

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<thead>
<tr>
<th>Course Learning Outcomes</th>
<th>Relationship of Course Learning Outcomes to Program Outcomes</th>
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<tr>
<td></td>
<td>a  b  c  d  e  f  g  h  i  j  k  l  m  n</td>
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<tr>
<td>1</td>
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<td>2</td>
<td>◆               ◆</td>
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<td>3</td>
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**Key**

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<th>Program Outcome Description</th>
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◇ = The course objective *lightly* addresses the Program Outcome  
◆ = The course objective *strongly* addresses the Program Outcome

**Course outcomes assessment matrix completed by:** Troy Nguyen, Ph.D., Associate Professor of Civil Engineering and Construction Management  

**Date:** February 22, 2017