PURDUE UNIVERSITY
REQUEST FOR ADDITION, EXPIRATION,
OR REVISED OF AN UNDERGRADUATE COURSE
(10000-40000 LEVEL)

DEPARTMENT: MCET
EFFECTIVE SESSION: Spring 2016

INSTRUCTIONS: Please check the items below which describe the purpose of this request.

- [ ] New course with supporting documents
- [ ] Add existing course offered at another campus
- [ ] Expiration of a course
- [ ] Change in course number
- [ ] Change in course title
- [ ] Change in course credit/Type
- [ ] Change in course attributes (department head signature only)
- [ ] Change in instructional hours
- [ ] Change in course description
- [ ] Change in course requisites
- [ ] Change in semesters offered (department head signature only)
- [ ] Transfer from one department to another

PROPOSED:

Subject Abbreviation: CNET
Course Number: 44900
Long Title: Senior Capstone
Short Title: [Abbreviated title will be entered by the Office of the Registrar if omitted. (20 CHARACTERS ONLY)]

EXISTING:

Subject Abbreviation
Course Number
Long Title
Short Title

TERMS OFFERED: Check All That Apply:

- [x] Fall
- [x] Spring
- [x] Summer

CAMPUS(ES) INVOLVED:

- [ ] Calumet
- [ ] Cont Ed
- [ ] Ft. Wayne
- [ ] N. Central
- [ ] Tech Statewide
- [ ] Indianapolis
- [ ] W. Lafayette

CREDIT TYPE:

1. Fixed Credit: Cr. Hrs. - 4
2. Variable Credit Range:
   Minimum Cr. Hrs. (Check One) -
   Maximum Cr. Hrs. -
3. Equivalent Credit: Yes [ ] No [ ]

COURSE ATTRIBUTES: Check All That Apply:

6. Registration Approval Type -
   [ ] Instructor

7. Variable Title [ ]
8. Honors [ ]
9. Full Time Privilege [ ]
10. Off Campus Experience [ ]

Schedule/Type

- Lecture
- Recitation
- Presentation
- Laboratory
- Lab Prep
- Studio
- Distance
- Experience
- Research
- Ind. Study
- Pract/Observ

Minutes Per Mgr [ ]
Meetings Per Week [ ]
Weeks Offered [ ]
% of Credit Allocated [ ]

CROSS-LISTED COURSES:

- [ ]
- [ ]
- [ ]
- [ ]
- [ ]

COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS):

P: Senior class standing. Must be in CNTB program/CNET major.
Comprehensive, capstone design project. Multi-disciplinary, project-oriented, real-world experience at the cutting edge. Generation and conclusive development of the final design with consideration for design reviews, prototype requirements, scheduling, ergonomics, safety and economic constraints. A written report and oral defense of the project is required.

*COURSE LEARNING OUTCOMES:

General Education Category C-8.1. Produce original work involving the creation or application of knowledge, performance or service. C-8.2. Report the results of original work through a discipline-appropriate product. C-8.3. Demonstrate a high level of personal integrity and professional ethics by understanding the ethical responsibilities related to the profession associated with the subject of the capstone project. C-8.4. Demonstrate critical-thinking abilities and familiarity with quantitative and/or qualitative reasoning.

Signature: [Signature]
Date: [Date]

Signature: [Signature]
Date: [Date]

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Date: [Date]

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Date: [Date]

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Date: [Date]

Signature: [Signature]
Date: [Date]

OFFICE OF THE REGISTRAR
MCET Department
Construction Engineering Technology
CNET 44900 – Senior Capstone – 4 credits

INSTRUCTOR: Professor Tim Hamilton 481-0680 - hamiltot@ipfw.edu, office ET 211 O, office hours Monday, Tuesday, Wednesday, and Thursday 3:00 pm – 4:30 pm and Monday, Wednesday 7:30-8:30 pm

COURSE DESCRIPTION

Comprehensive, capstone design project. Multi-disciplinary, project-oriented, real-world experience at the cutting edge. Generation and conclusive development of the final design with consideration for design reviews, prototype requirements, scheduling, ergonomics, safety and economic constraints. A written report and oral defense of the project is required.

COURSE OUTLINE AND OBJECTIVES

The principal objective of this course is to utilize and exhibit skills learned during the course of the Bachelor's degree program. Students will exhibit the ability to manage the process of a design build project, which may include the functions of: Design and Presentation Drawings, Preliminary Construction Documents, Estimating, Project Scheduling and Management, and material resources use. They will exhibit the ability to think ethically, creatively, and in terms of interrelated systems and global issues; function effectively on teams; identify, analyze and solve technical problems, all within a timely manner.

REQUIREMENTS

Preparation for Course
P: Senior class standing. Must be a CNTB program/CNET major

You must be aware that all scheduling and grading will be subject to reasonable revision during the semester as determined by the instructor.

COURSE FEATURES

Lecture: TR 6:00-7:50 pm

Textbook:

Text: There is no assigned textbook. You will use the library, online and other resources in the form of handouts.

EQUIPMENT USED: Windows-based computers with AutoCAD 2014, Microsoft Project, Microsoft Word and Adobe Photo Shop are available throughout the campus.
PROJECTS: Tentatively, there will be one project with several milestones to be achieved with written and oral reports scheduled through the semester. A final written report and oral defense of the project is required at the conclusion of the semester.

GRADING -

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A+</td>
<td>97-100%</td>
</tr>
<tr>
<td>A</td>
<td>93-96%</td>
</tr>
<tr>
<td>A-</td>
<td>90-92%</td>
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<tr>
<td>B+</td>
<td>87-89%</td>
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<tr>
<td>B</td>
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<td>C+</td>
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</tbody>
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CHEATING, plagiarism, collecting, sharing or accepting test questions are all grounds for failure of this course with a grade of zero. Procedures are in place to detect such activity.

ATTENDANCE: Students shall attend EVERY required meeting and/or presentation. All missed meetings, including late arrivals or early leaving, will count 1% against your final grade. Excused absences are those allowed by the instructor or appropriately documented emergencies.

PREPARATION: Students are required to have ALL equipment, books, and on-going projects with them at whenever needed for this course. Forgotten materials that prohibit the student from participating in this course will constitute an absence.

BEHAVIOR: Absolutely NO cell phone use or other distractions allowed. Generally as stated in the Student Handbook (page 5).

Disabilities Statement:
If you have a disability and need assistance, special arrangements can be made to accommodate most needs. Contact the Director of Services for Students with Disabilities (Walb, room 113, telephone number 481-6658), as soon as possible to work out the details. Once the Director has provided you with a letter attesting to your needs for modification, bring the letter to me. For more information, please visit the web site for SSD at http://www.ipfw.edu/ssl/

IPFW/PARKVIEW Student Assistance Program:
IPFW and the Department of Manufacturing & Construction Engineering Technology and Interior Design (MCET) recognize that personal problems can sometimes interfere with a student's ability to progress in his/her academic program. To help students address such problems IPFW makes free personal counseling services available in Walb 210. To schedule an appointment with an IPFW/PARKVIEW Student Assistance Program (SAP) counselor call 373-8060.
### TAC / ABET Criteria:

<table>
<thead>
<tr>
<th>General Topics</th>
<th>Assessment Method</th>
<th>TAC/ABET Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Development</td>
<td>Presentations, Papers &amp; Projects</td>
<td>a, e, g, i, k, a, e</td>
</tr>
<tr>
<td>Ordinance &amp; Code Evaluation</td>
<td>Presentations, Papers &amp; Projects</td>
<td>a, e, g, h, k, a, e</td>
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<tr>
<td>Preliminary Design</td>
<td>Presentations, Papers &amp; Projects</td>
<td>a, c, g, i, k, a, b, c, e</td>
</tr>
<tr>
<td>Preliminary Construction Doc</td>
<td>Presentations, Papers &amp; Projects</td>
<td>a, c, g, k, a, b, e</td>
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<tr>
<td>Material Selection</td>
<td>Presentations, Papers &amp; Projects</td>
<td>a, e, g, h, k, b, c, e</td>
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<tr>
<td>Preliminary Estimating</td>
<td>Presentations, Papers &amp; Projects</td>
<td>a, e, g, i, k, b, c</td>
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Relevant Technology Accreditation Commission of the Accreditation Board of Engineering & Technology (TAC/ABET) Outcomes:

**General Criterion 3.**

a. an appropriate mastery of the knowledge, techniques, skills and modern tools of their disciplines
b. an ability to function effectively on teams
g. an ability to apply written, oral and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature
h. an understanding of the need for and an ability to engage in self-directed continuing professional development.
i. an ability to understand professional, ethical and social responsibilities
k. a commitment to quality, timeliness & continuous improvement

**Program Criteria for Construction Engineering Technology:**

a. producing and utilizing design, construction, & operations documents
b. performing economic analysis and cost estimates related to design, construction and maintenance of systems in the construction technical specialties
c. select appropriate construction materials and practices
d. applying principles of construction law and ethics
e. applying basic technical concepts to the solution of construction problems involving...... scheduling and management