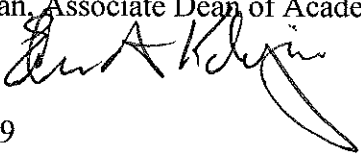


To: Dr. Mark Archambault  
Chair Undergraduate Curriculum Committee

From: Dr. Edward Kalajian, Associate Dean of Academics and Chair of COE College  
Council 

Date: November 16, 2009

Subject: Request for approval of COOP courses to support the *PROTRACK* Engineering  
COOP program.

**Approval Request:**

Four new courses with a prefix of EPE have been developed in concert with Ms. Dona Gaynor to support the *PROTRACK* Engineering COOP program. The course approval forms are attached along with a description of the workload to be performed in these courses. The College of Engineering Council has reviewed and approved these courses and requests approval by the University Curriculum Committee.

**Attachments:**

New Course Forms for EPE 1000, 1100, 2100 and 3100  
Proposed Assignments for Engineering *PROTRACK* COOP Program

This course is available for student registration only after the approval process has been completed.

SUBJECT EPE COURSE NO. 1000 CREDIT HOURS 0 TERM TO BE ADDED TO THE FILE Fall 2010  
Alpha Prefix (e.g., CSE) Number Choice (e.g., 1301) (e.g., Fall 2006)

CLASS HOURS 8 LECTURE HOURS 8 LAB HOURS \_\_\_\_\_ CONTACT HOURS (CEU ONLY) \_\_\_\_\_

DEPARTMENT Cooperative Education NA SCHEDULE TYPE Lecture (A)  
(e.g., Computer Sciences) (e.g., Lecture, Lab or Special Project)

- COLLEGE OF AERONAUTICS-23
- COLLEGE OF BUSINESS-24
- COLLEGE OF ENGINEERING-01
- COLLEGE OF PSYCHOLOGY AND LIBERAL ARTS-25
- COLLEGE OF SCIENCE-26
- UNIVERSITY COLLEGE EXTENDED STUDIES-27

COMPUTER TITLE Restricted to 25 characters, including spaces Protrack Coop Ed Prep

CATALOG TITLE PROTRACK COOPERATIVE EDUCATION PREPARATION

CATALOG DESCRIPTION OF COURSE Limited to 350 characters, including spaces

Prepares Protrack students for cooperative education experiences and develops career planning and job search skills and techniques. Teaches the fundamentals of career exploration, résumé development, interviewing skills and special job search techniques. Also covers workplace etiquette and ethics to help make a smooth transition to the workplace.

In addition, you may attach a course syllabus and/or more detailed description.

RESTRICTIONS

<input type="checkbox"/> Prerequisite _____ <small>Course Number</small>	<input type="checkbox"/> Corequisite _____ <small>Course Number</small>
<input type="checkbox"/> Prerequisite _____ <small>Course Number</small>	<input type="checkbox"/> Corequisite _____ <small>Course Number</small>
<input type="checkbox"/> Prerequisite _____ <small>Course Number</small>	<input type="checkbox"/> Corequisite _____ <small>Course Number</small>

GRADES TO BE ISSUED

- A, B, C, D, F
- A, B, C, D, F, CEU
- CEU
- S, U
- P, F
- Other \_\_\_\_\_

ADDITIONAL RESTRICTION Enrollment in Protrack program, 2.7 cumulative GPA and coop coordinator approval  
(e.g., Major, Class Level, Department Head Approval)

If this course replaces a course currently offered in BANNER, please indicate old course information

SUBJECT Alpha Prefix (e.g., CSE) \_\_\_\_\_ COURSE NO. (e.g., 1301) \_\_\_\_\_

**APPROVALS: Upon completion of appropriate department approvals, submit form to Chair, Graduate Council, or Chair, Undergraduate Curriculum Committee for approval below and forward to Catalog Director.**

D. Gaynor by SWK  
 Originator \_\_\_\_\_ Date \_\_\_\_\_ Chair, Graduate Council \_\_\_\_\_ Date \_\_\_\_\_  
[Signature] 11-16-09  
 Department Head/Program Chair \_\_\_\_\_ OR \_\_\_\_\_  
[Signature] 11-16-09  
 Dean/Associate Dean \_\_\_\_\_ Date \_\_\_\_\_ Chair, Undergraduate Curriculum Committee \_\_\_\_\_ Date \_\_\_\_\_

**CATALOG DIRECTOR**

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 Catalog Director \_\_\_\_\_ Date \_\_\_\_\_

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 SCARRS \_\_\_\_\_ Operator Init \_\_\_\_\_ Date \_\_\_\_\_

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This course is available for student registration only after the approval process has been completed.

SUBJECT EPE COURSE NO. 1100 CREDIT HOURS 3 TERM TO BE ADDED TO THE FILE Fall 2010  
Alpha Prefix (e.g., CSE) Number Choice (e.g., 1301) (e.g., Fall 2006)

CLASS HOURS \_\_\_\_\_ LECTURE HOURS \_\_\_\_\_ LAB HOURS \_\_\_\_\_ CONTACT HOURS (CEU ONLY) \_\_\_\_\_

DEPARTMENT Cooperative Education NA SCHEDULE TYPE Cooperative Education (V)  
(e.g., Computer Sciences) (e.g., Lecture, Lab or Special Project)

- COLLEGE OF AERONAUTICS-23
- COLLEGE OF BUSINESS-24
- COLLEGE OF ENGINEERING-01
- COLLEGE OF PSYCHOLOGY AND LIBERAL ARTS-25
- COLLEGE OF SCIENCE-26
- UNIVERSITY COLLEGE EXTENDED STUDIES-27

COMPUTER TITLE Restricted to 25 characters, including spaces Protrack Coop Ed

CATALOG TITLE PROTRACK COOPERATIVE EDUCATION

CATALOG DESCRIPTION OF COURSE Limited to 350 characters, including spaces

Prepares Protrack students for professional careers by integrating alternate periods of academic study and career-related work experience. Includes work in private industry, business and public agencies. Classifies student as full time when registered for three credits.

In addition, you may attach a course syllabus and/or more detailed description.

RESTRICTIONS  Prerequisite EPE 1000  Corequisite \_\_\_\_\_  
Course Number Course Number

Prerequisite \_\_\_\_\_  Corequisite \_\_\_\_\_  
Course Number Course Number

Prerequisite \_\_\_\_\_  Corequisite \_\_\_\_\_  
Course Number Course Number

GRADES TO BE ISSUED

- A, B, C, D, F
- A, B, C, D, F, CEU
- CEU
- S, U
- P, F
- Other \_\_\_\_\_

ADDITIONAL RESTRICTION Enrollment in Protrack program, 2.7 cumulative GPA and coop coordinator approval  
(e.g., Major, Class Level, Department Head Approval)

If this course replaces a course currently offered in BANNER, please indicate old course information

SUBJECT Alpha Prefix (e.g., CSE) \_\_\_\_\_ COURSE NO. (e.g., 1301) \_\_\_\_\_

**APPROVALS: Upon completion of appropriate department approvals, submit form to Chair, Graduate Council, or Chair, Undergraduate Curriculum Committee for approval below and forward to Catalog Director.**

D. Gaynor by [Signature] \_\_\_\_\_  
Originator Date Chair, Graduate Council Date

[Signature] 11-16-09 OR \_\_\_\_\_  
Department Head/Program Chair Date

[Signature] 11-16-09 \_\_\_\_\_  
Dean or Associate Dean Date Chair, Undergraduate Curriculum Committee Date

**CATALOG DIRECTOR**

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 BANNER term named above.

\_\_\_\_\_  
Catalog Director Date

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This course is available for student registration only after the approval process has been completed.

SUBJECT EPE COURSE NO. 2100 CREDIT HOURS 3 TERM TO BE ADDED TO THE FILE Fall 2010  
Alpha Prefix (e.g., CSE) Number Choice (e.g., 1301) (e.g., Fall 2006)

CLASS HOURS \_\_\_\_\_ LECTURE HOURS \_\_\_\_\_ LAB HOURS \_\_\_\_\_ CONTACT HOURS (CEU ONLY) \_\_\_\_\_

DEPARTMENT Cooperative Education NA SCHEDULE TYPE Cooperative Education (V)  
(e.g., Computer Sciences) (e.g., Lecture, Lab or Special Project)

- |   |  |
|---|--|
| <input type="checkbox"/> COLLEGE OF AERONAUTICS-23            | <input type="checkbox"/> COLLEGE OF PSYCHOLOGY AND LIBERAL ARTS-25 |
| <input type="checkbox"/> COLLEGE OF BUSINESS-24               | <input type="checkbox"/> COLLEGE OF SCIENCE-26                     |
| <input checked="" type="checkbox"/> COLLEGE OF ENGINEERING-01 | <input type="checkbox"/> UNIVERSITY COLLEGE EXTENDED STUDIES-27    |

COMPUTER TITLE Restricted to 25 characters, including spaces Protrack Coop Ed

CATALOG TITLE PROTRACK COOPERATIVE EDUCATION

CATALOG DESCRIPTION OF COURSE Limited to 350 characters, including spaces

Prepares Protrack students for professional careers by integrating alternate periods of academic study and career-related work experience. Includes work in private industry, business and public agencies. Classifies student as full time when registered for three credits. Can be applied as free elective credit.

In addition, you may attach a course syllabus and/or more detailed description.

RESTRICTIONS  Prerequisite EPE 1100  Corequisite \_\_\_\_\_  
Course Number Course Number

Prerequisite \_\_\_\_\_  Corequisite \_\_\_\_\_  
Course Number Course Number

Prerequisite \_\_\_\_\_  Corequisite \_\_\_\_\_  
Course Number Course Number

GRADES TO BE ISSUED

- A, B, C, D, F  
 A, B, C, D, F, CEU  
 CEU  
 S, U  
 P, F  
 Other \_\_\_\_\_

ADDITIONAL RESTRICTION Enrollment in Protrack program, 2.7 cumulative GPA and coop coordinator approval  
(e.g., Major, Class Level, Department Head Approval)

If this course replaces a course currently offered in BANNER, please indicate old course information

SUBJECT Alpha Prefix (e.g., CSE) \_\_\_\_\_ COURSE NO. (e.g., 1301) \_\_\_\_\_

**APPROVALS: Upon completion of appropriate department approvals, submit form to Chair, Graduate Council, or Chair, Undergraduate Curriculum Committee for approval below and forward to Catalog Director.**

D. Gaynor by JAIL \_\_\_\_\_  
Originator Date Chair, Graduate Council Date

\_\_\_\_\_  
Department Head/Program Chair 11-16-09 OR

\_\_\_\_\_  
Dean or Associate Dean 11-16-09 Chair, Undergraduate Curriculum Committee Date

**CATALOG DIRECTOR**

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\_\_\_\_\_  
Catalog Director Date

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RG-271-5061

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SUBJECT EPE COURSE NO. 3100 CREDIT HOURS 3 TERM TO BE ADDED TO THE FILE Fall 2010  
Alpha Prefix (e.g., CSE) Number Choice (e.g., 1301) (e.g., Fall 2006)

CLASS HOURS \_\_\_\_\_ LECTURE HOURS \_\_\_\_\_ LAB HOURS \_\_\_\_\_ CONTACT HOURS (CEU ONLY) \_\_\_\_\_

DEPARTMENT Cooperative Education NA SCHEDULE TYPE Cooperative Education (V)  
(e.g., Computer Sciences) (e.g., Lecture, Lab or Special Project)

- COLLEGE OF AERONAUTICS-23
- COLLEGE OF BUSINESS-24
- COLLEGE OF ENGINEERING-01
- COLLEGE OF PSYCHOLOGY AND LIBERAL ARTS-25
- COLLEGE OF SCIENCE-26
- UNIVERSITY COLLEGE EXTENDED STUDIES-27

COMPUTER TITLE Restricted to 25 characters, including spaces Engr Protrack Coop Ed

CATALOG TITLE ENGINEERING PROTRACK COOPERATIVE EDUCATION

CATALOG DESCRIPTION OF COURSE Limited to 350 characters, including spaces

Prepares students for professional careers. Students work on engineering projects including one or more of the following realistic constraints: economic, environmental, social, political, ethical, health, safety, security and manufacturing. Classifies student as full time. Can be used for a maximum of three credits of technical elective.

In addition, you may attach a course syllabus and/or more detailed description.

RESTRICTIONS  Prerequisite EPE 2100  Corequisite \_\_\_\_\_  
Course Number Course Number

Prerequisite \_\_\_\_\_  Corequisite \_\_\_\_\_  
Course Number Course Number

Prerequisite \_\_\_\_\_  Corequisite \_\_\_\_\_  
Course Number Course Number

GRADES TO BE ISSUED  
 A, B, C, D, F  
 A, B, C, D, F, CEU  
 CEU  
 S, U  
 P, F  
 Other \_\_\_\_\_

ADDITIONAL RESTRICTION Enrollment in Protrack program, 2.7 cumulative GPA and coop coordinator approval.  
(e.g., Major, Class Level, Department Head Approval)

If this course replaces a course currently offered in BANNER, please indicate old course information

SUBJECT Alpha Prefix (e.g., CSE) \_\_\_\_\_ COURSE NO. (e.g., 1301) \_\_\_\_\_

**APPROVALS: Upon completion of appropriate department approvals, submit form to Chair, Graduate Council, or Chair, Undergraduate Curriculum Committee for approval below and forward to Catalog Director.**

D. GAYNOR by 3/11/10  
Originator Date Chair, Graduate Council Date

[Signature] 11-16-09  
Department Head/Program Chair OR

[Signature] 11-16-09  
Dean or Associate Dean Chair, Undergraduate Curriculum Committee Date

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## **Proposed Assignments for Engineering *Protrack* Co-op Program**

### **Work Prep – EPE 1000 (0 credits, student enrolled at Florida Tech, Spring Semester)**

- Orientation course to allow students to become familiar with career planning, job search and expectations of industry/government

### **Work Term 1 – EPE 1100 (3 credits, notation on transcript and full-time status)**

- Student submits **Student Employment Agreement** at beginning of term
- Student submits **Student Work Report and Employer Evaluation Form** at end of term (signed by both student and employer)
- All forms must be submitted for student to receive passing grade

### **Work Term 2 – EPE 2100 (3 hours free elective credit and full-time status)**

- Student submits **Student Employment Agreement** at beginning of term
- Student submits **Co-op Report** ( 3-6 page report describing experience) at end of term
- Employer submits **Co-op Student Evaluation Form**
- All forms and reports must be submitted to receive passing grade

### **Work Term 3 – EPE 3100/CWE 3003 (3 hours technical elective credit and full-time status)**

- Student submits **Student Employment Agreement** form at beginning of term
- Student submits **Learning Objectives Form** at the beginning of term, see continuing section.
- Student submits **Co-op Technical Report** (7-10 page report describing experience) at the end of the term
- Employer submits **Engineering Co-op Student Evaluation Form**
- Student submits **Final Student Evaluation Form** that summarizes entire co-op experience and evaluates both employer and program
- All forms must be submitted to receive passing grade

## Learning Objectives – EPE 3100/CWE 3003

Since most students enrolling in EPE 3100/CWE 3003 are returning to a previous employer, it is suggested that you begin discussing your learning objectives with your supervisor prior to leaving during your second term. If you are going to a new employer for your third term, we suggest you meet with your supervisor early on in your experience for assistance in setting up your learning objectives. Your faculty co-op advisor and your co-op program manager must approve your learning objectives.

### *What is a Learning Objective?*

Learning objectives are statements which clearly and precisely describe what you intend to accomplish during this work term. For satisfactory completion of this course, students are required to submit **at least one and no more than three** learning objectives that address at least some of the following criteria:

- Applying knowledge of mathematics, science and engineering.
- Designing and conducting experiments, as well as to analyze and interpret data.
- Designing a system, component, or process to meet desired needs.
- Performing on multi-disciplinary teams.
- Identifying, formulating, and solving engineering problems.
- Using modern engineering tools, techniques, and skills
- Communicating effectively and developing professional and ethical responsibility

Learning Objectives are statements which clearly and precisely describe what you intend to accomplish during this work term. Each objective should be measurable and contain the following elements:

- A statement of what you expect to achieve through your work experience.
- An indication of the level of achievement which you expect to obtain, expressed if possible in numerical terms.
- How your efforts will be evaluated.

### *Sample Learning Objectives:*

- Design an HVAC modification to a mission-essential chemical storage building at Kennedy Space Center to improve efficiency and maintain equipment safety standards using Microstation CAD software while completing a thorough study of ventilation codes for chemical storage areas.
- Learn aspect oriented programming, multithreading and agile methodology to improve software development skills.
- Design an automated process that continually runs and tests a system that enables communication between web-based programs running on different computers using Java.

