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

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

DEPARTMENT Cooperative Education NA SCHEDULE TYPE Lecture (A)

□ COLLEGE OF AERONAUTICS-23 □ COLLEGE OF PSYCHOLOGY AND LIBERAL ARTS-25
□ COLLEGE OF BUSINESS-24 □ COLLEGE OF SCIENCE-26
☑ COLLEGE OF ENGINEERING-01 □ 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

□ Prerequisite  □ Corequisite

□ Prerequisite  □ Corequisite

□ Prerequisite  □ Corequisite

□ Prerequisite  □ Corequisite

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

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

SUBJECT Alpha Prefix (e.g., CS) 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 5016

Date 11-16-09

Chair, Graduate Council Date

OR

Date 11-16-09

Chair, Undergraduate Curriculum Committee Date

CATALOG DIRECTOR

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

Date

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ADDING A NEW COURSE TO THE CURRICULUM

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

CLASS HOURS:  
LECTURE HOURS:  
LAB HOURS:  
CONTACT HOURS: (CEU ONLY)

DEPARTMENT: Cooperative Education  
SCHEDULE TYPE: Cooperative Education (V)

☐ COLLEGE OF AERONAUTICS-23  
☐ COLLEGE OF PSYCHOLOGY AND LIBERAL ARTS-23  
☐ COLLEGE OF BUSINESS-24  
☐ COLLEGE OF SCIENCE-26  
☐ COLLEGE OF ENGINEERING-01  
☐ 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  
☐ Prerequisite: Course Number  
☐ Corequisite: Course Number  
☐ Prerequisite: Course Number  
☐ Corequisite: Course Number

GRADES TO BE ISSUED:  
☐ A, B, C, D, F  
☐ A, B, C, D, CEU  
☐ CEU  
☐ S, U  
☐ P, F  
☐ Other

ADDITIONAL RESTRICTION:  
Enrollment in Protrack program, 2.7 cumulative GPA and coop coordinator 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 9011

Origination:  
Date: 11-16-09

Department Head Program Chair:  
Date: 11-16-09

Dean of Associate Dean:  
Date

CATALOG DIRECTOR

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Catalog Director:  
Date

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ADDING A NEW COURSE TO THE CURRICULUM

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
(Assign Prefix (e.g., CSE)  Number Choice (e.g., 1201)

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

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

☐ COLLEGE OF AERONAUTICS - 23  ☐ COLLEGE OF PSYCHOLOGY AND LIBERAL ARTS - 25
☐ COLLEGE OF BUSINESS - 24  ☐ COLLEGE OF SCIENCE - 26
☒ COLLEGE OF ENGINEERING - 01  ☐ 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., 1201)

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.

Origination Date  Chair, Graduate Council  Date

Department Head/Program Chair  Date

Dean or Associate Dean  Date

Approvals Date

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

SUBJECT: EPE  
COURSE NO: 3100  
CREDIT HOURS: 3  
TERM TO BE ADDED TO THE FILE: Fall 2010  
CLASS HOURS:_  
LECTURE HOURS:_  
LAB HOURS:_  
CONTACT HOURS (CEU ONLY):_  
DEPARTMENT: Cooperative Education (e.g., Computer Sciences)  
SCHEDULE TYPE: Cooperative Education (V) (e.g., Lecture, Lab or Special Project)  

☐ COLLEGE OF AERONAUTICS—23  ☐ COLLEGE OF PSYCHOLOGY AND LIBERAL ARTS—25  
☐ COLLEGE OF BUSINESS—24  ☐ COLLEGE OF SCIENCE—26  
☒ COLLEGE OF ENGINEERING—01  ☐ 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 electives.  

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

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:  
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 9/26  
Date: 11-16-09  
Chair, Graduate Council  
Date  
OR  
Dean or Associate Chair  
Date: 11-16-09  
Chair, Undergraduate Curriculum Committee  
Date  

CATALOG DIRECTOR:  

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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.
• Work on a multi-disciplinary engineering team and develop professional verbal and written communication skills by learning how to convey detailed information to groups of people of various educational backgrounds and skill level.
• Create a model of a thrust measurement system using Pro-E and using mathematical formulas to develop an efficient fuel source.

LEARNING OBJECTIVES – ENGINEERING COOP III

Circle one: Fall Spring Summer Year ______

Student Name: ___________________________ Major: __________________________

Company: __________________________________________

Position: __________________________________________

Learning Objectives:

Approvals:

Supervisor Name: ___________________________ Signature: __________________________

Faculty Co-op Advisor: ___________________________ Signature: __________________________

Co-op Program Manager: ___________________________ Signature: __________________________

Student Signature: ___________________________ Date: __________________________