

**1. Course number and name:**

EE 488: Professional Practice Coop/Internship I

**2. Credits and contact hours:**

V 1-2, May be repeated for credit; cumulative maximum 6 hours.

**3. Instructor's or course coordinator's name:**

Sandra Brabb

**4. Textbook, title, author, and year:**

M. True. 2013. *InternQube: Professional Skills for the Workplace* (2nd ed.).

(Recommended)

*Other supplemental materials*

Course coordinator provides reporting templates and performance evaluation forms.

**5. Specific course information:**

a. *Brief description of the content of the course (catalog description):*

Practicum for students admitted to the VCEA Professional Practice and Experiential Learning Program; integration of coursework with on-the-job professional experience. (Crosslisted course offered as ENGR 488, BIO ENG 488, CHE 488, CE 488, CPT S 488, E E 488, ME 488, MSE 488, SDC 488). S, F grading.

b. *Prerequisites or co-requisites:* By department permission.

**6. Specific goals for the course:**

Internships and co-op jobs approved by the office of Professional Practice and Experiential Learning (ProPEL) provide students with an opportunity to apply theoretical concepts from the classroom to the realities of the field.

Students are expected to increase proficiency in the following areas through participation in work integrated learning:

- An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics. (1a,b,c,d,e)
- An ability to apply engineering design to produce solutions that meet specified needs. (2a,b,c,d,e,f)
- An ability to recognize ethical and professional responsibilities in engineering situations. (4a,b,c,d,e)
- An ability to communicate effectively with a range of audiences. (3a,b,c,d,e,f)

- An ability to acquire and apply new knowledge as needed, using appropriate learning strategies. (7a,b,c,d,e,f,g)
- Ability to use techniques, skills, and modern engineering tools necessary for engineering practice. (1a,b,c,d,e) (6a,b,c,d)
- Ability to think critically. (1a,b,c,d,e) (7a,b,c,d,e,f,g)
- Ability to manage change. (4a,b,c,d,e) (7a,b,c,d,e,f,g)
- Understanding of workplace dynamics. (4a,b,c,d,e) (5a,b,c,d,e,f,g)

Some students will increase proficiency if the cooperative education assignment provides the appropriate opportunities in the following areas:

- An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions. (6a,b,c,d)
- An ability to function effectively on a team. (5a,b,c,d,e,f,g)
- Knowledge of contemporary issues. (2a,b,c,d,e,f,) (4a,b,c,d,e)
- An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics. (1a,b,c,d,e)

#### **7. Course topics/assignments to be covered:**

- Pre-Work Integrated Learning Self-Evaluation
- Learning Objectives Report
- Monthly Activity Reports
- Employer's Evaluation of Student Performance