

Professional Career Planning Curriculum for Engineers



CACEE 2014 National Conference

Presenter: John Fagan
Career Educator – jfagan@uvic.ca
University of Victoria



Learning in motion.



**University
of Victoria**

Co-operative Education
Program and Career Services

Motivation for New Course

- Graduation preparation
- PD & EIT planning
- Leadership skills
- Mentoring relationships
- Retention of junior students
- Connecting with local Industry

ENGR330: CEAB Requirements

- 12 Core Attributes from Engineers Canada - CEAB
- Areas such as life long learning, social responsibility, ethics and equity
- B.Eng has rigorous program with only one or two electives

ENGR330:Course Objectives

- To apply the career management skills learned through co-op work terms to leverage engineering education into career success upon graduation
- To strategize for future career success by learning how to set realistic goals and plan/undertake the required professional development in order to attain those goals

ENGR330:Course Structure and Delivery

- Lectures, industry speakers and labs
- Mentoring assignments
- Strategic volunteering
- Network building
- Leadership and presentation skills

Unit	Date	Plenary Lecture ECS104	Professional Development & Mentorship Laboratory ECS660	
1	9 th January	Competency Assessment and Engineering ePortfolio	Mentorship Meetings	Leadership Meetings
2	Thursday 16 th January	Engineering Leadership	Tuesday Jan 14 th	Wednesday Jan 15 th
3	23 rd January	Mentoring Relationships	Jan 21 st	Jan 22 nd Room:EOW-430
4	30 th January	Network Building and Strategic Volunteering	Jan 28 th	Jan 29 th
5	6 th February	Guest Lecture Can Assist	Feb 4 th	Feb 5 th
READING BREAK February 10 th -14 th				
6	20 th February	EIT and Professional Development Planning	Feb 18 th Room: EOW-430	Feb 19 th
7	27 th February	Guest Lecture – EIT Requirements <i>Catherine Westra - APEGBC</i>	Feb 25 th	Feb 26 th
8	6 th March	Labour Market Research	Mar 4 th	Mar 5 th
9	13 th March	Guest Lecture – Engineering Leadership <i>Derek Doyle - APEGBC</i>	Mar 11 th	Mar 12 th
10	20 th March	Post Graduation Work Search	Mar 18 th	Mar 19 th
11	27 th March	Guest Lecture Industry Rep	Mar 25 th	Mar 26 th
12	3 rd & 4 th April	ePortfolio presentations. 10 sessions over 2 days		

Assignments:	Due Date:	Method:
1. Competency Assessment	January 16th	In Class
2. ePortfolio (including Professional Résumé)	April 3rd	Presentation in class
3. Mentoring Requirements	Before April 11 th	3 activity reports per mentee
4. Strategic Volunteering/Event Attendance	Before April 11 th	Proof of attendance. 3 different events (See events list)
5. Leadership Requirements	Weekly -10	In class meeting facilitation
6. Reflective Questions	Due weekly	Moodle online text submission
7. Professional Development Plan	April 3rd	Moodle Document Submission
8. Coaching Session with Career Educator	Before April 11 th	ECS210 – in person

Competency Assessment

- Used as a standard for co-op work terms
- Students gain understanding of competency (outcome) based model
- Similar model now used to assess EIT experience by provincial bodies – APEGBC/APEGA/PEO/PEGNL...

ePortfolios – Today's Self Promotion

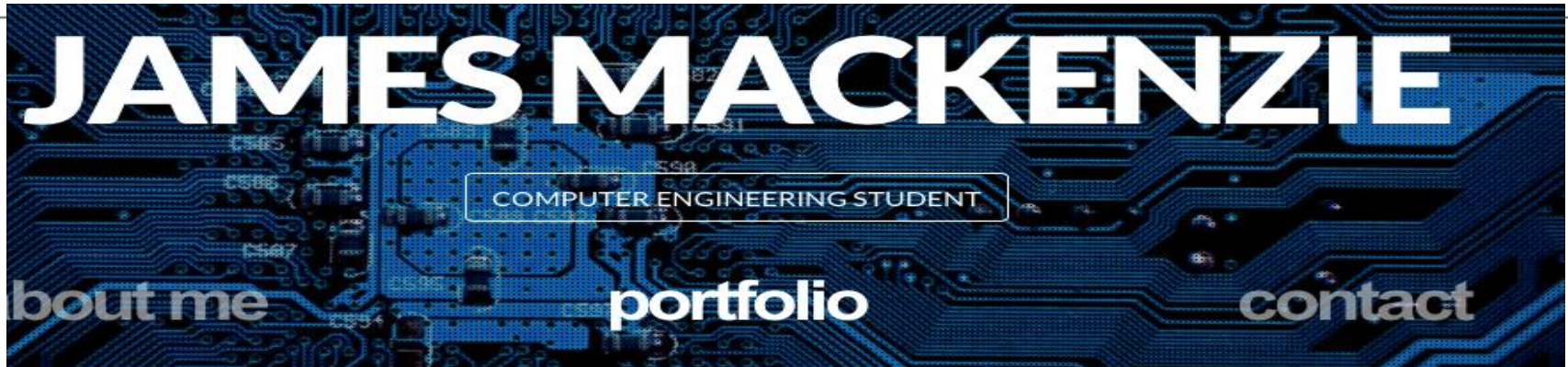
- Student familiarity and use of different platforms
- Software Engineers created own website, others uses Weebly/ Tripod/ Coroflot/ and now WordPress. (Mahara?)
- Mechanical/Electrical – used this to highlight examples of projects.
- Presented to peers in final class

ePortfolios...Presented to peers in final class



Sample ePortfolio: James Mackenzie

(with permission)



MY WORK

ALL

REPORTS

PROJECTS



Learning in motion.



University
of Victoria

Co-operative Education
Program and Career Services

Mentoring Lab -

- Recruited first year students at risk of dropping out
- Used resumes to match Mentors and Mentees
- Required three meetings – facilitated in Lab

Mentoring Lab -



Learning in motion.



University
of Victoria

Co-operative Education
Program and Career Services

Strategic Volunteering/ Events

- On Campus events like career fairs and employer info sessions
- Off campus APEGBC events
- Industry associations – ASHRAE/IEEE...
- ViaTEC – local tech sector association

Strategic Volunteering/ Events



Learning in motion.



University
of Victoria

Co-operative Education
Program and Career Services

Leadership Labs

- Technical presentation to peers
- Lead a meeting
- Give and receive feedback – verbally and written
- Learn from cross discipline information

Visit to on Campus Assistive Technologies Lab



DISPLAY: Standard | [Mobile](#) | **High Contrast** TEXT SIZE: A

[Home](#) | [About us](#) | **[Technologies](#)** | [Programs](#) | [Access our services](#) | [Latest news](#) | [Contact us](#)

Enter search topic...

Technologies



Technologies by category

Alphabetical list of technologies

Apps for download

Videos of technologies

CanAssist develops customized technologies for people of all ages and from across the disability spectrum. The requests we receive vary greatly, but in order to be considered, a solution must be unavailable commercially or through other providers. We most often focus on clients in British Columbia, though sometimes support clients elsewhere in Canada and even internationally. We also enter into funding agreements with organizations requiring customized technologies for their clients or employees with disabilities, with all proceeds from such activities reinvested into CanAssist.

Learn about CanAssist technologies:

- [Technologies by category](#)
- [Alphabetical list of technologies](#)
- [Apps for download](#)



Donate

Reflective Practice

- Weekly reflective questions
- Covering the areas of focus such as professional development and EIT planning

Professional Development Plan

- EIT PD requirements as outlined by APEGBC
- A start on planning what sector/Industry are of interest
- PD requirements as an EIT vs. personal interests

Professional Development Plan

Professional Development Plan

Over the course of my time in the workforce, I have been able to identify career motivators. First and foremost, my number one motivator is work that I have a personal interest in. I need to get a certain level of fulfillment from my career. I refuse to spend my days trading my time for being involved with something I have absolutely no interest in. Next, having the opportunity to solve unique problems is vital to my ability to stay focused on a particular career path. I cannot be happy working in a job that is relatively unchallenging and that requires little or no ingenuity. Finally, I am strongly motivated by compensation. Regardless of my personal level of interest in a given career, I want the ability to provide financial for myself, and those in my future family to indulge ourselves in whatever personal interests or hobbies we choose.

Inspirational Industry Speakers



Learning in motion.



University
of Victoria

Co-operative Education
Program and Career Services

Successes:

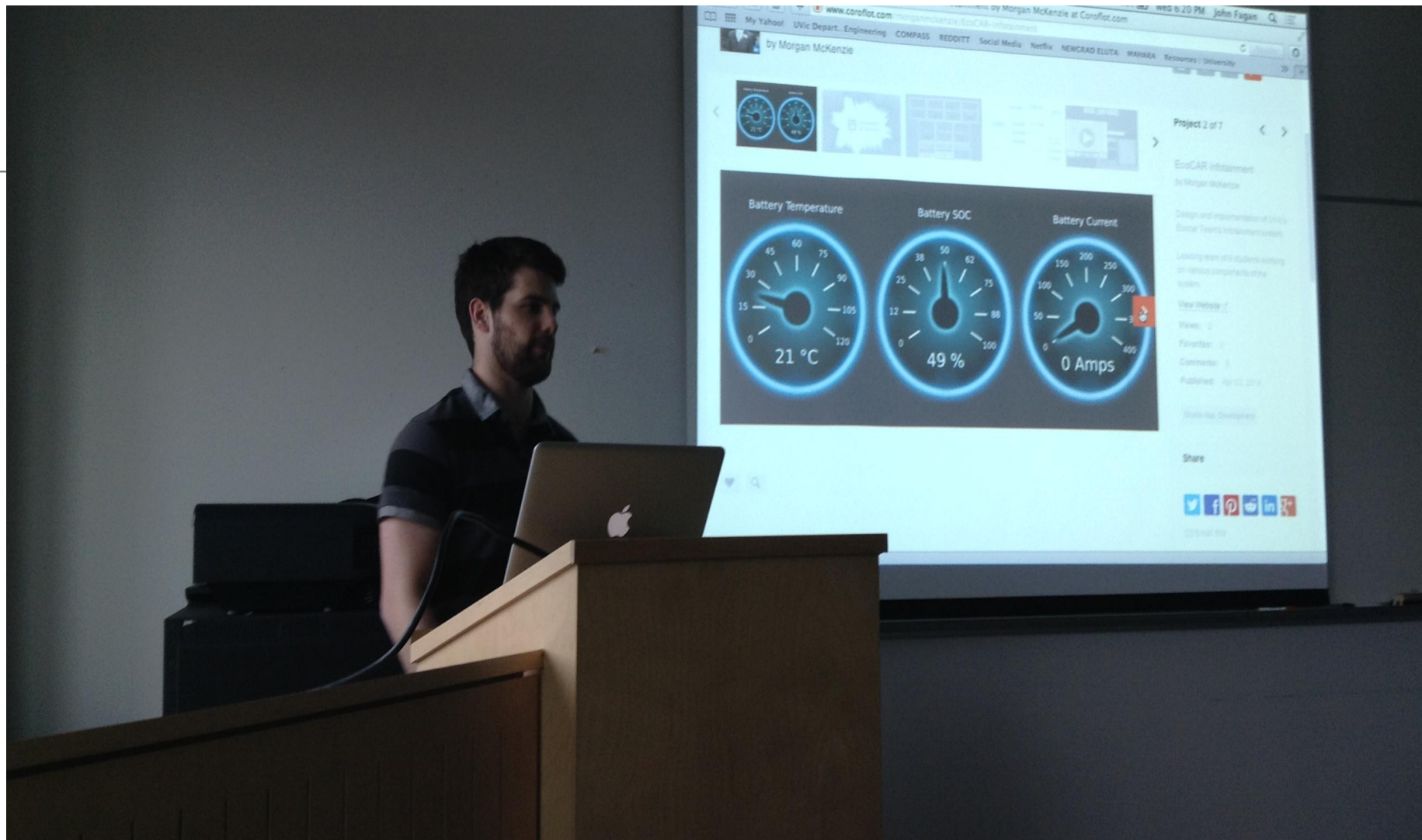
- Excellent student feedback
- Some great examples of ePortfolios
- Industry connections for students
- Clarity on EIT registration – from the source

Challenges:

- Ownership – Faculty/Careers Office?
- Resource heavy first iteration
- Marketing to students
- More mentees than mentors

Outcomes:

- Scheduled to be offered again next year
- Approved as a complementary elective
- Similar course being built for new M.Eng Program



Learning in motion.



University
of Victoria

Co-operative Education
Program and Career Services