Industry Internship Projects
ELG / GNG 5902

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Remember: FOCUS & FOLLOW-THRU!!

• Professional Skill #1: FOCUS
  • WHAT is your most important priority/goal for:
    • Your Life or Your Career or Your Degree or This Course or Your Happiness or THIS LECTURE or The Course Project or The Job Interview or This Individual You Are Communicating With ....
    • The one thing ... that if achieved means you are successful (no matter what else...) ... and if not achieved means you failed (no matter what else is achieved ...)
    • Each context has its own FOCUS.
  • WHY is it important?
    • Who/what is needed to succeed (and have you found them yet).

• Professional Skill #2: FOLLOW-THRU
  • HOW do you achieve your FOCUS? ARE YOU SUCCEEDING?! Are you committed? Serious? And Politely, Patiently but persistently RELENTLESS?!
  • Do you have the right FOCUS? WHAT and WHO do you need to find / develop / prepare / master / do / achieve to FOLLOW-THRU?
What is a career?

- A series of projects in which new skills are learned, experience is gained in roles that develop your authority in your area of expertise.

- Projects are done in teams.

- Projects have a context and must integrate with or interface to systems (processes, technology, information, organizations, legal).

- Projects have a business purpose and generate value.

- Projects have a focus.
The Faculty of Engineering ROADMAP

• Join the **Professional Development Club (PDC)** to build your professional **network** (colleagues, support, mentoring, connections)

• **ELG / GNG 5301** for education, mentoring and experience in professional **skills**, **teams**, and **projects**.

• Fully engage in courses, **volunteer** opportunities, **projects**, research opportunities, industry **internships**, university services and facilities

• Leverage your professional **network** to define, plan, propose and complete an **ELG / GNG 5902 Industry Internship Project** as a culmination of your degree ... and gateway to a great job!
ELG / GNG 5902 Course Logistics

- **Weekly Office Hours / Discussion Group**
  - Wednesday 10h – 11h20, meet.google.com/bdk-wdeh-pta
  - **PDC Contact: Naphreet Kaur** nkaur051@uottawa.ca

- **Withdraw from course if the following are not satisfied:**
  - **Signed Project Proposal by ADD/DROP Deadline!! (February 5)**
    - Industry Contact (you find)
    - Supervising Professor (you find)
    - ELG / GNG 5902 Project Coordinator (Prof. Liam Peyton)
      - Send to Naphreet Kaur PDC Executive – Projects, nkaur051@uottawa.ca
    - Service Request – for final approval by your program
  - **Absolutely confident the project completed this semester (April 30)**
    - otherwise must register next semester (winter) AND pay for 6 units tuition a 2nd time!!
ELG / GNG 5902 Course Logistics

• Forms and Templates for ELG / GNG 5902
  • https://www.site.uottawa.ca/~lpeyton/gradproject/
• Presentations
  • IndustryInternshipProject (this presentation)
  • Career (related – sets context)
• Project Proposal Templates (ELG 5902, GNG 5902)
• Example Project Report
• Industry Contact Evaluation Form
What is a project?

• A project can be an organized attempt to engineer a solution to a problem
  • Engineering design process:  

• A project can be a creative approach to improving user experience
  • Design thinking:  
    https://www.interaction-design.org/literature/topics/design-thinking

• A project can be a systematic approach to researching the literature, collecting data, comparing cases to identify & evaluate possible solutions
  • Systematic literature review:  
What is a successful project?

• **Value proposition**
  • What benefits will your project provide to who and how will you achieve it ... and how will you demonstrate / measure that you have achieved it
  • Define, Evaluate, Measure, Build
    [https://www.forbes.com/sites/michaelskok/2013/06/14/4-steps-to-building-a-compelling-value-proposition/#57b6c1214695](https://www.forbes.com/sites/michaelskok/2013/06/14/4-steps-to-building-a-compelling-value-proposition/#57b6c1214695)

• **Minimum Viable Product**
  • Minimum set of features, or the essential functionality that a product needs to provide to be useful to customers; to get feedback for the next iteration.
  • The essential feature(s) that guarantee success if present, failure if absent
    [https://medium.com/@sprocompany/what-is-a-minimum-viable-product-and-how-to-build-an-mvp-for-your-startup-9a02c0d4a56a](https://medium.com/@sprocompany/what-is-a-minimum-viable-product-and-how-to-build-an-mvp-for-your-startup-9a02c0d4a56a)

• **Evaluation Criteria**
  • What are the criteria for success? How will they be measured?
How Do I plan the project?

• Duration and Effort
  • Target Minimum 240 hours ... max 360
  • Usually 1 semester - 12 weeks @20 hours a week (university budgets that students spend 10 hours per week for a 3 unit course) ... but could be 24 weeks @ 10 hours a week, could be 6 weeks @ 40 hours a week. Be clear.

• Specify Expected Results
  • Define what you need to deliver at the end of the project to satisfy your client.
  • Define how it will be evaluated and progress tracked. Deliverables (intermediate and final results) and Grading Scheme.

• Define a Week by Week Schedule
  • Work backwards from the end result and list week by week what tasks will be performed or what milestones (intermediate results) will be achieved
  • Track your progress week by week throughout the project (an update schedule to keep it real).
How am I evaluated

• Your Supervising Professor is responsible for informing me or the graduate office of your final grade
  • Depending on the project each Deliverable that was identified in the Project Proposal could be evaluated by either the industry contact or the supervisor.
  • EXCEPT there must be a project report worth 30-60% of the final grade that is graded by the Professor
  • And there must be an internship evaluation form that is worth 10-30% that is filled in by the Industry partner

• Projects can be done by a team of students
  • Each student has a separate project proposal that clearly identifies their role on the project, and what part of the project they do entirely on their own.
  • Each student does their own project report and has their own internship evaluation
  • But their can be common parts of the project infrastructure (and intermediate deliverables) that are a group effort and a group mark.

• NOTE: Individual projects also specify their “team” (key contacts they interact with), as well as identify the tools and resources and existing infrastructure that is part of the project context.