

COURSE OUTLINE

ECE/BME/CENG 499– Design Project II

Term –SPRING 2021 (202101)

Instructor

Dr. Babak Manouchehrinia

E-mail: bmn14@uvic.ca

Office Hours

Days: By appointment

Time: Thursday

Zoom link: <https://uvic.zoom.us/j/9286986526>

Course Objectives

The course helps develop the students' ability to:

- Select and appropriately scope an engineering problem.
- Explicitly determine the objectives and aims associated with the problem.
- Assess a number of potential solutions.
- Conduct a detailed technical analysis of the chosen solution to determine if and how it will fulfil the objective and aims of the project.
- Written communication of a technical analysis, in a concise and defensible manner.
- Evaluate and communicate limitations.
- Develop ideas for further work based of their analysis.
- Produce a complete and concise Executive Summary of their work.

Learning Outcomes

1. Formulate a problem definition and design objectives for a design activity based on the requirements and constraints imposed by the client/stakeholder.
2. Plan project timelines with milestone dates and activities.
3. Generate and evaluate conceptual design ideas by performing a detailed literature review.
4. Explain the social implications of the proposed engineering work.
5. Apply appropriate mathematical methods for the analysis of the engineering design.
6. Participate effectively in teamwork during engineering design.
7. Produce a functional prototype or perform extensive simulation of the design.
8. Test, evaluate and document the performance of the prototype.
9. Prepare professional reports detailing the design activity.
10. Create a webpage or poster and video to publicize the design activity.

Syllabus

N/A

Required Textbook

N/A

Online Course Delivery:

As this course will be conducted online during this term, students will need to complete assignments online. The students will require access to a computer which has the following software installed: Microsoft Office

Assessment:

Activity	Mark by	Weight	Due Date
Progress Report	Supervisor	15%	Feb 15 th
Work Log for Jan & Feb	TA	5%	Feb 28 th
Work Log for March	TA	5%	March 25 th
Final Project Report	Supervisor	50%	March 28 th
Poster	TA /Judges	10%	March 31 th
Video	TA /Judges	15%	March 31 th

Important: All deadlines and schedules for this course will reference Pacific Standard Time until March 14, 2021 and then Pacific Daylight Time.

Note 1: Public demo might be added, with adjusted weights, depending on the pandemic situation.

Note 2: Failure to submit poster or video or Final project report will result in a failing grade for the course.

The final grade obtained from the above marking scheme for the purpose of GPA calculation will be based on the percentage-to-grade point conversion table as listed in the current Undergraduate Calendar.

<https://www.uvic.ca/calendar/archives/202101/undergrad/index.php#/policy/S1AAgoGuV?bc=true&bcCurrent=14%20-%20Grading&bcGroup=Undergraduate%20Academic%20Regulations&bcltemType=policies>

There will be no supplemental examination for this course.

https://www.uvic.ca/calendar/archives/202101/undergrad/index.php#/policy/SJ2Rxoz_N?bc=true&bcCurrent=13%20-%20Examinations&bcGroup=Undergraduate%20Academic%20Regulations&bcltemType=policies

Note to students:

Students who have issues with the conduct of the course should discuss them with the instructor first. If these discussions do not resolve the issue, then students should feel free to contact the Chair of the Department by email or the Chair's Assistant to set up an appointment.

Course Withdrawal Deadlines:

- January 19, 2021: Withdrawal with 100% reduction of tuition fees (under review)
- February 9, 2021: Withdrawal with 50% reduction of tuition fees (under review)
- February 28, 2021: Last day for withdrawal (no fees returned) (under review)

Accommodation of Religious Observance:

<https://www.uvic.ca/calendar/archives/202101/undergrad/index.php#/policy/r1q0gofdN?bc=true&bcCurrent=10%20-%20Accommodation%20of%20Religious%20Observance&bcltemType=policies>

Policy on Inclusivity and Diversity:

Engineering: <https://www.uvic.ca/engineering/about/equity/index.php>

Academic Calendar:

<https://www.uvic.ca/calendar/archives/202101/undergrad/index.php#/policy/HkQ0pzdAN?bc=true&bcCurrent=%20General%20University%20Policies&bcGroup=General%20University%20Policies&bcltemType=policies>

Standards of Professional Behaviour:

You are advised to read the Faculty of Engineering document Standards for Professional Behaviour, which contains important information regarding conduct in courses, labs, and in the general use of facilities.

<https://www.uvic.ca/engineering/assets/docs/professional-behaviour.pdf>

Academic Integrity

Cheating, plagiarism and other forms of academic fraud are taken very seriously by both the University and the Department. You should consult the entry in the current Undergraduate Calendar for the UVic policy on academic integrity.

https://www.uvic.ca/calendar/archives/202101/undergrad/index.php#/policy/Sk_0xsM_V?bc=true&bcCurrent=08%20-%20Policy%20on%20Academic%20Integrity&bcltemType=policies

Equality:

This course aims to provide equal opportunities and access for all students to enjoy the benefits and privileges of the class and its curriculum, and to meet the syllabus requirements. Reasonable and appropriate accommodation will be made available to students with documented disabilities (physical, mental, learning) in order to give them the opportunity to successfully meet the essential requirements of the course. The accommodation will not alter academic standards or learning outcomes, although the student may be allowed to demonstrate knowledge and skills in a different way. It is not necessary for you to reveal your disability and/or confidential medical information to the course instructor. If you believe that you may require accommodation, the course instructor can provide you with information about confidential resources on campus that can assist you in arranging an appropriate accommodation. Alternatively, you may want to contact the Centre for Accessible Learning located in the Campus Services Building. <https://www.uvic.ca/services/cal/>. The University of Victoria is committed to promoting, providing, and protecting a positive, supportive, and safe learning and working environment for all its members.

Course Lecture Notes:

Unless otherwise noted, all course materials supplied to students in this course have been prepared by the instructor and are intended for use in this course only. These materials are NOT to be re-circulated digitally, whether by email or by uploading or copying to websites, or to others not enrolled in this course. Violation of this policy may in some cases constitute a breach of academic integrity as defined in the UVic Calendar.

Sexualized Violence Prevention and Response at Uvic:

UVic takes sexualized violence seriously, and has raised the bar for what is considered acceptable behaviour. We encourage students to learn more about how the university defines sexualized violence and its overall approach by visiting www.uvic.ca/svp. If you or someone you know has been impacted by sexualized violence and needs information, advice, and/or support please contact the sexualized violence resource office in Equity and Human Rights (EQHR). Whether or not you have been directly impacted, if you want to take part in the important prevention work taking place on campus, you can also reach out:

Where: Sexualized violence resource office in EQHR; Sedgewick C119

Phone: 250.721.8021

Email: svpcoordinator@uvic.ca

Web: www.uvic.ca/svp

Office of the Ombudsperson:

The [Office of the Ombudsperson](https://uvicombudsperson.ca/) is an independent and impartial resource to assist with the fair resolution of student issues. A confidential consultation can help you understand your rights and responsibilities. The Ombudsperson can also clarify information, help navigate procedures, assist with problem-solving, facilitate communication, provide feedback on an appeal, investigate and make recommendations. Phone: 250-721-8357; Email: ombuddy@uvic.ca, Website: <https://uvicombudsperson.ca/>