***SOE - COURSE SYLLABUS TEMPLATE***

***[Remove all RED information found in parentheses]***

**Course Code & Number (Credits) Full Course Title**

The School of Engineering acknowledges that the land on which we are situated is the ancestral, traditional, and unceded territory of the Syilx (Okanagan) People.

**Instructor Name:**

**Instructor Contact Information:**

**TA Contact Information:** *[If applicable]*

**Office Hours**

**Class Meeting Time, and Location**

**Academic Calendar Entry** *[The software system (CMS) will not allow for an Academic Calendar Entry course description to be over 500 characters (including spaces, but not including vectors or prerequisites). Therefore, it should be as brief as possible while still being informative (aim for 40 words or less). Full sentences are not required]*

*[include vector; pre/co-requisites; equivalencies]*

*For example:*

*Project management including initiating, planning, executing, controlling, and closing engineering projects. Managing the scope, costs, schedule, risks, and human resources in engineering projects. [3-0-0] Prerequisite: All of APSC 169, APSC 201.*

UBC Okanagan Academic Calendar: <http://www.calendar.ubc.ca/okanagan/>

**Course Format***[How is the course structured (e.g., method of presentation of course material - lecture, labs, tutorials, seminars, learning management system)?]*

* Ex: Three hours per week of lecture
* Two hours per alternating week of lab
* Assessment will consist of design project, presentation, midterm exam, and final exam.
* Course materials found on Canvas

**Course Objectives***[purpose of the course; a lengthier course description to ‘unpack’ the Calendar Entry****;*** *What general objectives is the course designed to achieve? Teacher perspective on the course; What concepts or topics will be covered?]*

*[Example:*

*The course will examine….*

*The course will provide students with….]*

**Learning Outcomes**
*[Student-centered view of the course. Outcomes are achieved results of what was learned, which implies they will be evaluated outcomes; they should reflect the Graduate Attributes covered in your course and be expressed as verbs progressing up Bloom’s Taxonomy, depending on year level. Avoid starting an Outcome with “Understand” – instead use “Demonstrate understanding”]*

After completing this course, students should be able to:

* Demonstrate….
* Design…
* Critically evaluate…
* Collaborate…

**Learning activities:**

*[This includes the activities that students will engage in to achieve the stated learning outcomes or objectives (e.g., participation in class, written analysis of case studies, required readings, participation in on-line discussions, term papers, presentations, lab and field activities)]*

**OPTIONAL: Additional Course Requirements** *[Are there any other requirements students should be made aware of at the start of the course (e.g., participation in a field trip)?]*

 **Course Schedule (Tentative)** *[Include a table detailing the week and lecture topic covered, any required readings, labs, due dates..modify as needed for your course]*

|  |  |  |
| --- | --- | --- |
| **Weeks** | **Topics** | **Required Reading(s)/Labs/Due Dates** |
| **1** |  | **1 & 2** |
|  |  |  |
|  |  |  |
|  |  |  |
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|  |  |  |

 **Required Textbooks/Readings and Videos** *[Only required readings and videos; to correspond with course schedule, readings can be numbered. Ensure the citation style used is consistent throughout the entire course syllabus and consistent with the citation style being requested from the students in their assignments.]*

**[Recommended Readings]** *[Recommended readings if any; an exhaustive bibliography not required for Senate approval.]*

**Evaluation Criteria and Grading** *[Provide a grading rubric (i.e. type / name of evaluation, value / percentage, date of assessment; Link the learning outcomes to the assessments to show demonstrable skills. For further information and support, see the Centre for Teaching and Learning:* <http://ctl.ok.ubc.ca/>]

* What assignments, mid-terms, or exams will be required of students? Provide a one-to-two sentence description of each component.
* What will each component of the course evaluation be worth (mark breakdown)?
* Is the course graded on a numeric (percentage) or pass/fail basis?
* If pass is not 50%, then indicate what percentage constitutes a pass.
* Are the exams oral or written?
* Is the final exam cumulative?
* *If participation counts for over 5%, provide an explanation of how grade was arrived at*.]

**Final Examinations**

Students are required to be available during the posted examination period to write the exam as scheduled. Except in the case of examination clashes and hardships (three or more formal examinations scheduled within a 27-hour period) or unforeseen events, students will be permitted to apply for out-of-time final examinations only if they are representing the University, the province, or the country in a competition or performance; serving in the Canadian military; participating in [observances of religious significance or observances of cultural importance to First Nations, Métis, and Inuit students](https://okanagan.calendar.ubc.ca/campus-wide-policies-and-regulations/academic-accommodation-all-students-religious-observances-and-cultural-observances-first-nations); working to support themselves or their family; or caring for a family member; or unforeseen events include (but may not be limited to) ill health or other personal challenges that arise during a term and changes in the requirements of an ongoing job. Further information on Academic Concession can be found under [*Campus-wide Policies and Regulation*](https://okanagan.calendar.ubc.ca/campus-wide-policies-and-regulations) in the [*UBC* *Okanagan Academic Calendar*](https://okanagan.calendar.ubc.ca/)*, see https://okanagan.calendar.ubc.ca/campus-wide-policies-and-regulations/academic-concession*

[Recommended to add:
**Note**: Grades of each assessment component will be posted on Canvas. The instructor and TAs will do their best to post the grades as early as possible, typically within 10 days of the assessment due date. You are highly encouraged to review your grades once they become available. If you would like to discuss your grades, please contact the instructor and/or the TA in charge within 2 weeks of receiving your grades on Canvas. All posted grades on Canvas are finalized two weeks after posting and no further discussions or adjustments on the posted grades can be made afterwards.

**Engineering Accreditation**

The Canadian Engineering Accreditation Board requires students to have achieved competency in twelve main areas by graduation. To ensure that our program provides sufficient instruction in these 12 graduate attributes, course learning outcomes have been mapped to the graduate attributes for each course. The relevant graduate attributes for this course are identified below.

|  |  |
| --- | --- |
| **Course Learning Outcomes** | **Graduate Attributes**(as defined below) |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ex: Assess environmental impact of proposed designs |  |  |  |  |  |  |  |  | D |  |  |  |
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**I=Introduced D=Developed A=Applied**

**CEAB Graduate Attributes**

1. **A knowledge base for engineering:** Demonstrated competence in university level mathematics, natural sciences, engineering fundamentals, and specialized engineering knowledge appropriate to the program.
2. **Problem analysis:** An ability to use appropriate knowledge and skills to identify, formulate, analyze, and solve complex engineering problems in order to reach substantiated conclusions.
3. **Investigation:** An ability to conduct investigations of complex problems by methods that include appropriate experiments, analysis and interpretation of data, and synthesis of information in order to reach valid conclusions.
4. **Design:** An ability to design solutions for complex, open-ended engineering problems and to design systems, components or processes that meet specified needs with appropriate attention to health and safety risks, applicable standards, and economic, environmental, cultural and societal considerations.
5. **Use of engineering tools:** An ability to create, select, apply, adapt, and extend appropriate techniques, resources, and modern engineering tools to a range of engineering activities, from simple to complex, with an understanding of the associated limitations.
6. **Individual and team work:** An ability to work effectively as a member and leader in teams, preferably in a multi-disciplinary setting.
7. **Communication skills:** An ability to communicate complex engineering concepts within the profession and with society at large. Such ability includes reading, writing, speaking and listening, and the ability to comprehend and write effective reports and design documentation, and to give and effectively respond to clear instructions.
8. **Professionalism:** An understanding of the roles and responsibilities of the professional engineer in society, especially the primary role of protection of the public and the public interest.
9. **Impact of engineering on society and the environment:** An ability to analyze social and environmental aspects of engineering activities. Such ability includes an understanding of the interactions that engineering has with the economic, social, health, safety, legal, and cultural aspects of society, the uncertainties in the prediction of such interactions; and the concepts of sustainable design and development and environmental stewardship.
10. **Ethics and equity:** An ability to apply professional ethics, accountability, and equity.
11. **Economics and project management:** An ability to appropriately incorporate economics and business practices including project, risk, and change management into the practice of engineering and to understand their limitations.
12. **Life-long learning:** An ability to identify and to address their own educational needs in a changing world in ways sufficient to maintain their competence and to allow them to contribute to the advancement of knowledge.

**Academic Integrity at UBC and the School of Engineering**

Academic and professional integrity are of the upmost importance at the School of Engineering. Please read your syllabus carefully to understand the expectations surrounding academic integrity in this course. In addition, please familiarize yourself with the following expectations from the UBC Okanagan Academic Calendar language surrounding [academic integrity](https://okanagan.calendar.ubc.ca/campus-wide-policies-and-regulations/student-conduct-and-discipline/discipline-academic-misconduct/1-expectations-academic-integrity) for students:

* + Academic integrity is essential to the continued functioning of UBC as an institution of higher learning and research. All applicants to UBC programs are responsible for ensuring that all application materials they submit to UBC are true and complete and all UBC students are expected to behave as honest and responsible members of an academic community. Breaching those expectations or failing to follow the applicable policies, regulations, rules, or guidelines with respect to academic integrity constitutes academic misconduct and may have serious consequences.
	+ It is the obligation of all students to inform themselves of the applicable standards for academic integrity. Students must be aware that standards at UBC may be different from those in secondary schools or at other institutions. If a student is in any doubt as to the standard of academic integrity in a particular course or assignment, then the student must consult with the instructor as soon as possible. In no case should a student submit an assignment if the student is not clear on the relevant standard of academic integrity.

 *Academic misconduct:*Academic misconduct includes any conduct by which a student gains or attempts to gain an unfair academic advantage or benefit thereby compromising the integrity of the academic process, or helping or attempting to help another person commit an act of academic misconduct or gain, or attempt to gain, an unfair academic advantage. Examples of academic misconduct include (see full details [here](https://okanagan.calendar.ubc.ca/campus-wide-policies-and-regulations/student-conduct-and-discipline/discipline-academic-misconduct/3-academic-misconduct-ubc-students)):

* submitting false or incomplete records or information to UBC, or failing to provide relevant information when requested, and which includes application misconduct;
* cheating (see examples [here](https://okanagan.calendar.ubc.ca/campus-wide-policies-and-regulations/student-conduct-and-discipline/discipline-academic-misconduct/3-academic-misconduct-ubc-students));
* possession during an examination of any materials or devices not specifically permitted by the instructor or examiner;
* failing to comply with any rule or direction governing examinations given by an instructor or examiner or any policy governing examinations;
* committing plagiarism, namely submitting or presenting the work of another person as one’s own, without appropriate referencing. A student who seeks assistance from a tutor, a student, or other scholastic aids must ensure that the submitted work is the student’s own. Students who are in any doubt as to what constitutes plagiarism should consult their instructor before handing in the work.);
* committing self-plagiarism (reuse of one’s own previous work, whether in whole or in part, or the same or substantially the same work, without appropriate referencing and without prior approval from the instructor(s) to whom the work is to be submitted);
* impersonating a student, facilitating the impersonation of a student, or allowing another person to impersonate them during an examination or any other academic assessment;
* failing to comply with any disciplinary measure imposed for academic misconduct; and
* failing to comply with the terms of an integrity plan.

**All students are expected to know, understand, and follow these policies and regulations**. Violating these policies and regulations or helping other students in such violations is academic misconduct. Consequences of academic misconduct include a mark of zero on the assignment or exam, a report to the School of Engineering Academic Misconduct Review Committee for record keeping and applying disciplinary measures, and in some cases more serious consequences may apply if the matter is referred to the President’s Advisory Committee on Student Discipline.

Additionally, be wary of sites that market themselves to be “study aids” as they may fall under the definition of contract cheating (<https://academicintegrity.ubc.ca/academic-integrity-in-teaching-and-learning/contract-cheating/>). In addition, there have been instances where these sites have blackmailed students even after graduation.

For additional language specific to online education, please consult the [Academic Integrity Working Group’s website](https://provost.ok.ubc.ca/initiatives/student-academic-success/faculty-resources-for-academic-integrity/).

*SoE Academic Misconduct Review Procedures:*

The following steps will be followed in cases of suspected academic misconduct:

* The instructor will notify the student of the alleged misconduct and the assigned penalty and the student will be given an opportunity to respond.
* The instructor will report the incident to the School of Engineering Academic Misconduct Review Committee and will include the student’s response.
* The Academic Misconduct Review Committee will review the case and either issue a warning letter to the student or recommend further review by the Dean’s Designate.
* The Dean’s Designate will meet with the student and either issue a warning letter or refer the matter to the President’s Advisory Committee on Student Discipline (if applicable).
* The case will be heard by the President’s Advisory Committee on Student Discipline (if applicable).

*Intellectual Property and Copyright:*

All course material provided (including, but not limited to, lecture notes, assignments and examination materials) is the intellectual property of the instructor and as such is copyrighted. The course material is only intended for the student’s personal use as part of the course. Copying, reproducing, transmitting or redistributing the material in any form or by any means in whole or in part for other students or any third party (including, but not limited to, uploading them to non-UBC sites for file sharing or for soliciting answers online) are considered misconduct under UBC’s policies and violates copyright law (see academicintegrity.ubc.ca/teaching-and-learning/contract-cheating).

*Use of Generative AI tools (such as ChatGPT):*

[if not allowed in the course: Generating solutions for assessments using generative AI tools (such as ChatGPT) and submitting them as a student’s original work is considered **academic misconduct**.]

[If allowed in the course: In this course, students are permitted to use generative AI tools (such as ChatGPT) as a helping tool; however, **these tools should not replace writing original content or conducting independent research**. Students should be mindful that AI tools are susceptible to errors and may incorporate discriminatory ideas and misinformation in their output. When used, the output of an AI tool must be checked for accuracy and cited appropriately. If a student is unsure whether they are using AI tools appropriately, they should discuss this with the course instructor.]

**Academic Concessions (updated Sep 2025)**

The School of Engineering recognizes that over the course of the term, unanticipated events and circumstances may arise for a student that may hinder the student’s participation or attendance at a class session or examination or their ability to otherwise fulfill the requirements of a course in a timely manner. For a full overview of what constitutes grounds for academic concession, please refer to the UBC Okanagan Academic Calendar under [Academic Concession](https://okanagan.calendar.ubc.ca/campus-wide-policies-and-regulations/academic-concession).

## Types of Academic Concessions

Grounds for academic concession fall into one or more of the following categories: Conflicting Responsibilities, Medical Circumstances, and Compassionate Grounds. If your situation meets the grounds for academic concession, one or more of the following concessions may be applied:

* In-term Assessment Concessions: Depending on your circumstances, you may receive an extension on your assignment deadline(s), be given the opportunity to make up missed work, or to move the weighting of an assignment or in-term quiz or examination to a subsequent one. In-term course concessions are generally reviewed and granted by the instructor.
* Course and Final Exam Concessions: Concession requests that go beyond a concession on an in-term assessment must be approved by the Associate Director of Undergraduate Students. To apply for such a concession, please submit a request for academic concession using the form linked below. For example, if you miss your final exam due to circumstances that meet the grounds for academic concession, you may be eligible for a deferred exam. Alternatively, if your circumstances are such that you are unable to complete the required course components, you may be eligible for a late withdrawal. Additional concessions, including Aegrotat Standing, Adjudicated Pass, and Retroactive Course Drop, may be considered depending on your circumstances.

## Requesting Academic Concession

If you would like to request an academic concession, please make the request as early as reasonably possible, in writing to your instructor for in-term course concessions, or through the Academic Concession Request Form for other concessions: <https://engineering.ok.ubc.ca/resources/forms/academic-concession-request>.

“These requests should clearly state the grounds for the academic concession and the anticipated duration of the conflict and/or interference with academic work. In some situations, this self-declaration is sufficient, but the submission of supporting documentation may be required along with, or following, the self-declaration.”

“For students who are requesting an academic concession on the ground of sexualized violence, Sexual Violence Prevention and Response Office (SVPRO) can make the request directly to the Dean on behalf of the student. Full details of the incident and its impacts do not have to be disclosed.”

If you have questions about this process or what information you may be required to disclose, when, and to whom, please speak to an academic advisor: <https://students.ok.ubc.ca/academic-success/advising-options/academic-advising>.

## Third Party Authorization

If you are unable to make a request for academic concession on your own, you may request a trusted individual to do so on your behalf. However, the University will not be able to disclose any personal information about you to this individual –not even if you are a student here or not – unless that person has Third Party Authorization. To grant a trusted designate Third Party Authorization, please follow the steps outlined here <https://students.ok.ubc.ca/courses-money-enrolment/third-party-authorization/>.

**Resource Links**

* UBC Okanagan Academic Calendar: <https://okanagan.calendar.ubc.ca/>
* UBC Okanagan Provost Learning Services Faculty Resources for Academic Integrity: <https://provost.ok.ubc.ca/initiatives/online-transition/faculty-resources/faculty-resources-for-academic-integrity/>
* Academic Integrity at UBC <https://academicintegrity.ubc.ca/>

**Student Service Resources**

**UBC Okanagan Disability Resource Centre**

The Disability Resource Centre ensures educational equity for students with disabilities and chronic medical conditions. If you are disabled, have an injury or illness and require academic accommodations to meet the course objectives, please contact Jason Taylor, the Diversity Advisor for the School of Engineering in the Disability Resource Centre located in the University Centre building (UNC 214).

Email: drc.questions@ubc.ca

Web: [www.students.ok.ubc.ca/drc](http://www.students.ok.ubc.ca/drc)

**UBC Okanagan Equity and Inclusion Office**

Through leadership, vision, and collaborative action, the Equity & Inclusion Office (EIO) develops action strategies in support of efforts to embed equity and inclusion in the daily operations across the campus. The EIO provides education and training from cultivating respectful, inclusive spaces and communities to understanding unconscious/implicit bias and its operation within in campus environments. UBC Policy 3 prohibits discrimination and harassment on the basis of BC’s Human Rights Code. If you require assistance related to an issue of equity, educational programs, discrimination or harassment please contact the EIO.

**UNC 216** (250.807.9291)

email: equity.ubco@ubc.ca

Web: [www.equity.ok.ubc.ca](http://www.equity.ok.ubc.ca)

**Health & Wellness**

At UBC Okanagan health services to students are provided by Health and Wellness. Nurses, physicians and counsellors provide health care and counselling related to physical health, emotional/mental health and sexual/reproductive health concerns. As well, health promotion, education and research activities are provided to the campus community. If you require assistance with your health, please contact Health and Wellness for more information or to book an appointment.

**UNC 337** (250.807.9270)

email: healthwellness.okanagan@ubc.ca

Web: [www.students.ok.ubc.ca/health-wellness](http://www.students.ok.ubc.ca/health-wellness)

**Safewalk**

*Don't want to walk alone at night?  Not too sure how to get somewhere on campus?*

*Call Safewalk at* ***250-807-9236***

*For more information, see:* [www.security.ok.ubc.ca](http://www.security.ok.ubc.ca)

**School of Engineering Calculator Policy for Exams**

The School of Engineering has a calculator policy whereby only the two models shown below are permitted in midterm and final exams.

**Two Permitted Makes / Models**

|  |  |
| --- | --- |
| Texas Instruments TI-36X Pro | CASIOfx-991ES PLUS C\*\*2nd edition (right) released 2021 |

Both calculators will be available through the bookstore. Both calculators have the following functionalities:

• solar + battery powered

• “natural” 4-line display

• standard scientific operations

 (trig, hyp, exp, log, etc.)

• complex numbers

• numerical solver

• roots of quadratic and cubic polynomials

• simultaneous linear equations

 (up to 3 unknowns)

• vector and matrix operations

 (real valued, up to 3x3)

• numerical integrals and derivatives

• statistics, regressions, and distributions

• base 2, 8, 10, 16

• stored variables and operations

• constants and conversions

• NOT programmable

• NOT graphing capable

• NO wireless functions

• NO file storage

**Academic Honesty and Integrity Pledge**

**School of Engineering | Faculty of Applied Science**

**UBC Okanagan**

Academic honesty and integrity are essential principles of the University of British Columbia and engineering as a profession. All UBC students are expected to behave as honest and responsible members of an academic community. Engineering students have an even greater responsibility to maintain the highest level of academic honesty and integrity as they prepare to enter a profession with those principles as a cornerstone.

Cheating on exams or projects, plagiarizing or any other form of academic dishonesty are clear violations of these principles

As a student of the School of Engineering at UBC Okanagan, I solemnly pledge to follow the policies, principles, rules, and guidelines of the University with respect to academic honesty. In particular, I commit to upholding the academic integrity and the professionalism as an engineering student.

By signing this pledge, I promise to adhere to exam requirements and maintain the highest level of ethical principles during the exam period.

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Signature Name

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student Number Date

**Why are we doing the integrity pledge?**

Dr. Laura Patterson

On behalf of the School of Engineering Ethics and Academic Integrity Committee

*An engineering student asked me why the School of Engineering requires students to sign the Integrity Pledge, and what is so wrong with collaborating on an exam when everyone else is doing it. Those questions are important and this was the email that was sent in return.*

The integrity pledge is a form of an honour code to ensure students acknowledge that the exam is intended to be a solo exercise testing your individual skills and not a group effort. In an exam situation, consulting with colleagues for answers on an exam intended to test individual abilities is not "collaborating," it is cheating and academic misconduct under UBC policies. Even though we are in a situation in which faculty may not be able to enforce this or enact consequences all the time, if a student chooses to continue this behaviour when expressly asked not to, they need to be aware that they are making a clear choice to act unethically, which is not entirely without consequences. These consequences are to one's identity.

There are many situations where no one is watching, or there are no immediate consequences, where professionals must choose to do either the ethical thing or the unethical thing. We do what we practice, and we become what we do. Research into ethics in engineering education found that those students who operate unethically during their education have a higher likelihood of operating unethically in their professional careers, because they have not exercised the skill of operating ethically in the easier and lower stakes setting of education. When these bad habits catch up with us, they can lead to lawsuits, public disgrace, and death. Examples of such cases in the media include the SNC Lavalin fraud case, cases of individual engineering university professors caught plagiarizing out of Waterloo and Regina, or the Hyatt Regency walkway collapse that killed 114 and injured 216. Few people wake up and decide to be unethical or think themselves to be, but the daily habit of cutting corners in the short term and rationalizing that behavior builds to larger exceptions that become harder to resist.

The "if everyone is doing it, I should too" argument is a common logical fallacy known as the bandwagon argument used to rationalize behaviour because it is popular. The common retort is "if everyone jumped off of a bridge, should you too?" A better quotation to respond to this argument would be "The only thing necessary for the triumph of evil is for good men to do nothing." It is true that it will seem that others are getting away with it; however, choosing to participate in it, not only makes the situation worse, it also comes at a significant cost to one's perceptions of oneself.

This integrity pledge then becomes a question of "Who do you want to be?" Choosing to do the ethical thing, even when the other option seems easier, is a long-term choice to build the habits of ethical behaviour and the skill set of handling the hard things necessary to be an ethical professional. It can also influence other students to act with integrity and help shift the culture if more students expected their colleagues to act ethically. So, when you choose what you are going to do in these difficult situations, you are choosing your identity and influencing the culture of your educational program.