Faculty of Engineering And Applied Science

Course Outline

SOFE 3650U - Software Design and Architectures

(Fall 2022)

Course Description:

Engineering design phase of software development: software architectural styles, static and dynamic midlevel object-oriented design concepts (UML class, interaction, and state models), and low-level design modelling. Course emphasizes the Unified Modelling Language (UML) and use of design patterns like broker, generator, reactor design patterns, etc.

Major Topics:

- Software Engineering Design
- Patterns in Software Design (Broker, Generator, and Reactor)
- UML Static and Dynamic Models
- Software Architectural Styles

Graduate Attributes:

The graduate attributes measured in this course as required by the Canadian Engineering Accreditation Board's (CEAB's) Accreditation Criteria and Procedures are listed below. Note that other graduate attributes may be covered in this course that are not being measured for CEAB purposes.

Attribute	**Covered in Course**
Knowledge base	
Problem analysis	
Investigation	
Design	Yes
Use of engineering tools	Yes
Individual and team work	Yes
Communication skills	
Professionalism	
Impact of engineering on society and the environment	Yes
Ethics and equity	

Attribute	Covered in Course
Economics and project management	
Life-long learning	Yes

Academic Unit Breakdown (%):

Mathematics *	Natural Science *	Complementary Studies *	Engineering Science *	Engineering Design *
0	0	0	50	50

Course Outcomes:

Students who successfully complete this course will have reliably demonstrated an understanding of the following areas:

1. Software design patterns including: creational patterns, structural patterns, behavioral patterns
2. The importance of design architectures in the design phase of software development through the development of different software design architecture solutions taking into consideration conflicting design principles.
3. Software architectural design patterns such as: Layered (n-tier), event-driven, microkernel, microservices, and space-based architectures.
4. Understand how software quality attributes impact the software architecture model.
5. Use of software modeling, analysis, design and development tools

Instructors:

Name	Email Address	Office Location	Phone/Extension	Office Hours
Dr. Ramiro Liscano	please use Canvas email	SIRC 3360	3086	Wed. & Thurs. 12:30-1:30

Teaching Assistants:

For TA information, please refer to Canvas.

Name	Email Address	Office Location	Phone/Extension	Office Hours
Aida Vantankhah	please use Canvas email	SIRC 3340	NA	TBD
Rezwana Mamata	please use Canvas email	SIRC 3340	NA	TBD

Required Course Text and Other Materials:

- Designing Software Architectures: A Practical Approach, Humberto Cervantes, Rick Kazman, Addison-Wesley ISBN: 9780134390833, 2016

Reference Books and Information Sources:

- Software Architecture in Practice, 3/e Bass, Clements & Kazman, Addison-Wesley Professional ISBN 9780321815736, 2013
- Design Patterns – Elements of Reusable Object-Oriented Software, Gamma, Helm, Johnson, and Vlissides, Addison Wesley, ISBN 9780201633610
- Software Architecture Patterns: Understanding Common Architecture Patterns and When to Use Them, Mark Richards, O'Reilly Media, Inc., ISBN 978-1-491-92424-2, 2015.
- The Unified Modeling Language Reference Manual, (paperback) (2nd Edition) 2nd Edition

Course Organization and Delivery Mode:

This course is focused on Software Architecture Design and consists of the learning modules as listed below:

1. Review of good SE practices
2. Design Patterns
3. Software Architecture Modeling
4. Software Architecture Patterns
5. Software Quality Attributes
6. Software Architecture and Sustainability
7. Software Architecture Frameworks
8. Architecture Design Principles and the ADD Process
9. Team Dynamics
10. Project Cost Analysis

The course will be taught using a flipped classroom approach implying that a significant portion of the course consists of class exercises. Take note that the tutorial of the course follows the Friday lecture and it is in the same room faciltitating the continuation of class exercises into the tutorial time period for the Friday lecture / tutorial time period. During this time period students will work in groups on an extensive class exercise realted to the particular learning module of that week. The teachings assisstants and instructor will dynamiccaly iteract with the groups to offer feedback on the exercise during this period fo time. On the other hand, the Wednesday lecture is primarily dedicted to presenting the theory of the learning module. The course also consists of a series of bi-weekly labs that also expose the students to hands-on exercises to the material covered in the learning modules.

Scheduled Regular Class Meeting Times:

Wednesday & Fridays 11:10-12:30 [Sept. 7- Dec 2] Note that the tutorial is scheduled right after Friday's lecture.

Final Grade Breakdown:

Students are graded according to the following grade distribution:

Assigments	Labs	Project	Midterm Exam	Final
15%	15%	25%	15%	30%

Midterm Examination Schedule:

Start Date	Start Time	End Date	End Time	Location
10/21/2022	11:30	10/21/2022	13:00	SIRC 2020

Assignments:

Three assignments are planned for the course, one prior to the midterm break and two after. Assignments are an extension of the in class activities and are graded (note: in-call activities are not graded.) Assignments are performed in groups of 3 students consiting of the same students as those that are working in the class activities.

Laboratory Information:

Laboratory Type	Laboratory Description

Laboratory Type	Laboratory Description
Hands On	Introduction to Design Patterns
Hands On	Software Architecture Views
Hands On	Introduction to Software Architecture Patterns
Hands On	Mini-QAW Exercise
Hands On	The ATAM Software Architecture Analysis Process

Prelab Reports, Notes and Reports:

Labs

Labs are performed in groups of 3 students where possible. The labs are primarily software exercises that students work on together. Teaching assitants (TAs) will oversee the labs and offeer support to the students. The expected completion time of a lab is about 2 hours and the TAs will spend the last hour of the lab quickly overviewing the lab results and determining student participation in the lab. It is advisable to complete the pre-lab sections of the lab prior to coming to the lab. After the lab a brief lab submission is rquired consisting of:

- A Cover sheet:
  - Includes the lab member names and Banner IDs, date, and title of the lab.
- Deliverables:
  - Includes the requested work performed in the lab. Make certain that this work is presented in an orderly and readable manner. By this, it is expected that each of the deliverables is described in some manner as opposed to simply copying and pasting your work without any explanation.
  - All diagrams in the lab report should be properly captioned and referenced in the text of the lab report.
- Observations:
  - General statements on how the lab objectives were met

Project Deliverables

Students need to submit a project for the course that exemplifies the software architecture design process. Project group sizes consist of 3 students. The project consits of the application of the ADD software design process to a project that the instructor will specify via a set of requirements. Project groups are expected to submit at the end of the term a recorded presentation outlining their project as well as a set of design artifacts in a GitHub repository.

The project deliverables consists of the following:

1. Requirement Analysis
2. Midway Project Progress Assessment
3. Final Project Assessment
4. Presentation Video

More details of the project and deliverables will be posted on Canvas.

Note: An individual's student contribution to the project will be assessed based on the the commitments made to the GitHub project repository. As this is rather subjective we would be primarily focusing on cases where there is no contribution by a student member. The uploading of all artifacts to the GitHub repository by a single student member is not acceptable. Students should leverage GitHub's capability to pull particular parts of the project to work on and deliver into the repository. All students that contribute to the project will receive the same grade.

Team Assessment

A team assessment report is expected to be submitted for the project groups. The ITP metrics tool is used for this assessment (ITP Metrics). The grade of this exercise will be based on how much effort the students put into the evaluation of the team and how they respond to their own reflective feedback.

Tutorials:

Tutorials are a continuation of Friday's in-class activities. Students will work in groups of 3 student. In-class activities that are submitted at the end of the tutorial for a quick evaluation and feedback. There are no grades assigned to these exercises and participating in the exercises is highly encouraged as they are a core component of the learning process for the course. The evaluation of the in-class activities will also be used for the instructor to determine the students understanding of the material.

Computer Experience:

Most if not all the work is perfomed by leveraging software development tools executing on the student's laptop. You will be learning to utilize UML modeling tools, the GitHub repository, team assessment, and critical thinking.

Summary of Important Dates and Marking Scheme:

- In-class exercises - Every Friday weekly except for midterm
- Midterm - Friday Oct. 21, 2020, from 9-11 AM
  - Consists of 2 parts: A closed book multiple choice section followed by a short open book design question.
- Final - 3 hour exam scheduled to take place during the exam period.
  - Consists of 2 parts: A closed book multiple choice section followed by an open book design section

Detailed Course Content:

Week (Date)	Module	Exercise
1 (Sep. 7)	1. Introduction & Review of good SE practices	None
2 (Sep 14)	2. Design Patterns	Ex. 1: Design Patterns
3 (Sep 21)	3. Software Architecture Modeling	Ex. 2: Identifying Architectural Entities.
4 (Sep. 28)	4. Software Architecture Patterns	Ex 3: Architectural Pattern - MVC
5 (Oct. 5)	5. Software Quality Attributes	Ex. 4: Quality Attributes
6 (Oct. 10-14)	Midterm Break	NA
7 (Oct. 19)	6. Software Architecture & Sustainability	Mid: Friday Oct. 21 (9-11)
8 (Oct. 26)	7. Software Architecture Frameworks	Ex. 5: Architecture Framework Example
9 (Nov. 2)	8. Architecture Design Process - ADD	Ex. 6: ADD Iteration 1
10 (Nov. 9)	9. Architecture Design Process - ADD	Ex. 7: ADD Iteration 2
11 (Nov. 16)	10. Applying ADD to your Project	Ex. 8: Project progress assessment
12 (Nov. 23)	11. Estimating Project Cost from Architecture Design	Ex. 9: COCOMO & Function Points

Week (Date)	Module	Exercise
13 (Nov. 30)	12. Team Dynamics	Ex. 10: ITP Evaluation

Other Information:

Non-negotiated Late Assignments, Labs or Project Report Submissions

- A reading assignment or in-class activity that has been handed in late will be considered as not completed and will eventually result in a grade of 0 for that particular item.
- An assignment, lab, or project deliverable that has been handed in late without prior agreement between the student and the professor will be considered a non-negotiated late submission and will be assigned a penalty of 20% from the original grade, for each late day, therefore after 5 days the submission will be given a grade of zero.

Negotiated Late Assignments, Labs or Project Reports

- An assignment, lab, or project deliverable that has been handed in late in accordance with a mutually agreed deadline and penalty (if applicable) will be considered a negotiated late submission and will be marked in accordance with the mutually agreed terms.

Examination Conditions

- Students who do not complete an examination (midterm of final) without a valid medical excuse will receive a zero grade for the exam (see notes on medical notes.)
- Students who miss the midtern exam with a valid medical note will not be requested to re-take the midterm exam. The midterm exam portion of the grade will be added to the final exam grade.

Important Note on Passing the Course

Students must pass the total of the exam portions of the course to pass the course, i.e. the sum of the midterm and final exam must be ≥ 50%. The instructor reserves the right to change this condition on a person to person basis under conditions where students have performed poorly in the midterm but improve their performance for the final exam.

Medical Certificates and Deferred Exams:

Medical statements and academic consideration forms for any missed student work worth 25% or less (not including midterms or tests) will be submitted directly to the course instructor. This includes missed quizzes, assignments and labs. Missed Midterms or Coursework Worth More than 25% For any missed midterms or tests, regardless of weight, or coursework worth more than 25%, students will need to submit the OntarioTech Medical statement or academic consideration form to the Engineering Advising Office following the form guidelines.

Guidelines for Medical Statements:

Medical statements cover any missed work due to a medical reasons. The student must:

- see a medical doctor within 24 hours of the missed work
- submit the form to the correct individual within 3 working days

Guidelines for Academic Consideration Forms:

Academic consideration forms cover any missed work for non-academic grounds, for example, religious observations, court appearance, personal/family emergency, varsity events. The student must provide supporting

documentation if deemed necessary.

Should the medical certificate proven to be invalid due to any kind of action by the student, such student's behaviour will be considered as a major misconduct and respective disciplinary actions will be commenced.

Failure to comply with the above will result in an mark of 0 for the exam.

Students with disabilities may request to be considered for formal academic accommodation in accordance with the Ontario Human Rights Code. Students seeking accommodation must make their requests through the Centre for Students with Disabilities in a timely manner, and provide relevant and recent documentation to verify the effect of their disability and to allow the University to determine appropriate accommodations.

Accommodation decisions will be made in accordance with the Ontario Human Rights Code. Accommodations will be consistent with and supportive of the essential requirements of courses and programs, and provided in a way that respects the dignity of students with disabilities and encourages integration and equality of opportunity. Reasonable academic accommodation may require instructors to exercise creativity and flexibility in responding to the needs of students with disabilities while maintaining academic integrity.

Technology Requirements and Learning Management System Information:

Ontario Tech uses *Canvas*™ as its learning management system (LMS). Access to the LMS is limited to students formally registered in courses. That access is for the duration of the semester **and for an additional 120 days once the semester is over**. Students are strongly encouraged to download any/all relevant course material during that access period. Any requests for access post this period must be made in writing to the instructor/faculty member responsible for the course.

To support online learning, the university recommends certain technology requirements for laptops, software and internet connectivity which are available at: https://itsc.ontariotechu.ca/remote-learning.php.

Students experiencing technical difficulties such that they are unable to meet the technology requirements may contact the IT Service Help Desk at: servicedesk@dc-uoit.ca

Students experiencing financial difficulties such that they are unable to meet the technology requirements may contact Student Awards and Financial Aid Office at: connect@ontariotehu.ca

By remaining enrolled in this course, you acknowledge that you have read, understand and agree to observe the Recommended Technology Requirements for accessing university online learning resources, including those minimum requirements that are specific to your faculty and program.

Sensitive/Offensive Subject Matter:

The classroom (both physical and virtual) is intended to provide a safe, open space for the critical and civil exchange of ideas and opinions. Some articles, media and other course materials may contain sensitive content that is offensive and/or disturbing. The Course Instructor will try to identify such material and communicate warnings to students in advance of the distribution and use of such materials, affording students the choice to either emotionally prepare for, or not to view or interact with, the content.

Student Support:

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact studentlife@ontariotechu.ca for support. Furthermore, please notify your professor if you are comfortable in doing so. This will enable them to provide any resources and help that they can.

Sexual Violence Support and Education:

Ontario Tech is committed to the prevention of sexual violence in all is forms. For any student who has experienced Sexual Violence, Ontario Tech can help. We will make accommodations to cater to the diverse backgrounds, cultures, and identities of students when dealing with individual cases.

If you think you have been subjected to or witnessed sexual violence:

- Reach out to a Support Worker, a specially trained individual authorized to receive confidential disclosures about incidents of sexual violence. Support Workers can offer help and resolution options which can include safety plans, accommodations, mental health support, and more. To make an appointment with a Support Worker, call 905.721.3392 or email studentlife@ontariotechu.ca
- Learn more about your options at: https://studentlife.ontariotechu.ca/sexualviolence/

Students with Disabilities:

Accommodating students with disabilities at Ontario Tech is a responsibility shared among various partners: the students themselves, SAS staff and faculty members. To ensure that disability-related concerns are properly addressed during this course, students with documented disabilities and who may require assistance to participate in this class are encouraged to speak with me as soon as possible. **Students who suspect they have a disability that may affect their participation in this course are advised to go to Student Accessibility Services (SAS) as soon as possible.** Maintaining communication and working collaboratively with SAS and faculty members will ensure you have the greatest chance of academic success.

When on campus access is allowed, students taking courses on north Oshawa campus can visit Student Accessibility Services in the Student Life Building, U5, East HUB (located in the Founders North parking lot). Students taking courses on the **downtown Oshawa campus** can visit Student Accessibility Services in the 61 Charles St. Building, 2nd Floor, Room DTA 225 in the Student Life Suite.

Disability-related and accommodation support is available for students with mental health, physical, mobility, sensory, medical, cognitive, or learning challenges. Office hours are 8:30am-4:30pm, Monday to Friday, closed Wednesday's 8:30am – 10:00am. For more information on services provided, you can visit the SAS website at https://studentlife.ontariotechu.ca/services/accessibility/index.php. Students may contact Student Accessibility Services by calling 905-721-3266, or email studentaccessibility@ontariotechu.ca.

When on campus access is allowed, students who require the use of the Test Centre to write tests, midterms, or quizzes MUST register online using the SAS test/exam sign-up module, found here https://disabilityservices.ontariotechu.ca/uoitclockwork/custom/misc/home.aspx. Students must sign up for tests, midterms, or quizzes AT LEAST seven (7) days before the date of the test.

Students must register for final exams by the registration deadline, which is typically two (2) weeks prior to the start of the final examination period. SAS will notify students of the registration deadline date.

Professional **Suitability:**

All students who are enrolled in engineering programs must demonstrate behaviour appropriate to practice in engineering profession. Where Faculty dean determines that behaviour inconsistent with the norms and expectations of the profession has been exhibited by a student, that student may be immediately withdrawn from the program by the dean or subject to one or more of the sanctions described in the professional suitability policy. A student demonstrating professional unsuitability may be immediately suspended from any practicum, field work or similar activity at the discretion of the dean pending a final decision. The *Professional Suitability* policy can be found at https://usgc.ontariotechu.ca/policy/policy-library/policies/academic/academic-conduct-and-professional-suitability-policy.php and the related procedures are hosted

at https://usgc.ontariotechu.ca/policy/policy-library/policies/academic-misconduct-and-professional-unsuitability.php

Academic Integrity:

Students and faculty at Ontario Tech University share an important responsibility to maintain the integrity of the teaching and learning relationship. This relationship is characterized by honesty, fairness and mutual respect for the aim and principles of the pursuit of education. Academic misconduct impedes the activities of the university community and is punishable by appropriate disciplinary action.

Students are expected to be familiar with and abide by Ontario Tech University's regulations on Academic Conduct which sets out the kinds of actions that constitute academic misconduct, including plagiarism, copying or allowing one's own work to copied, use of unauthorized aids in examinations and tests, submitting work prepared in collaboration with another student when such collaboration has not been authorized, among other academic offences. The regulations also describe the procedures for dealing with allegations, and the sanctions for any finding of academic misconduct, which can range from a resubmission of work to a failing grade to permanent expulsion from the university. A lack of familiarity with these regulations on academic conduct does not constitute a defense against its application. This information can be found at https://usgc.ontariotechu.ca/policy/policy-library/policies/academic/academic-integrity-policy.php

Extra support services are available to all Ontario Tech University students in academic development, study skills, counseling, and peer mentorship. More information on student support services can be found at https://studentlife.ontariotechu.ca/services/academic-support/index.php

Turnitin:

Ontario Tech University and faculty members reserve the right to use electronic means to detect and help prevent plagiarism. Students agree that by taking this course all assignments are subject to submission for textual similarity review by Turnitin.com. Assignments submitted to Turnitin.com will be included as source documents in Turnitin.com's restricted access database solely for the purpose of detecting plagiarism in such documents. The instructor may require students to submit their assignments electronically to Turnitin.com or the instructor may submit questionable text on behalf of a student. The terms that apply to Ontario Tech University's use of the Turnitin.com service are described on the Turnitin.com website.

Students who do not wish to have their work submitted to Turnitin.com must provide with their assignment at the time of submission to the instructor a signed Turnitin.com Assignment Cover sheet: https://tlc.ontariotechu.ca/learning-technology/assignment-cover-sheet_updatedmay2021-1.pdf

Online Test and Exam Proctoring (Virtual Proctoring):

Ontario Tech University will conduct virtual monitoring of examinations in accordance with Ontario privacy legislation and all approved policy instruments.

Final Examinations (if applicable):

Final examinations are held during the final examination period at the end of the semester and **when on campus access is allowed,** may take place in a different room and on a different day from the regularly scheduled class. Check the published Examination Schedule for a complete list of days and times.

Students are required to show their Student ID card (campus ID) when **in-person examinations are allowed.** Students are advised to obtain their Student ID Card well in advance of the examination period as they will not be able to write their examinations without it. More information on ID cards can be found at https://registrar.ontariotechu.ca/campus-id/index.php.

Students who are unable to write a final examination when scheduled due to religious publications may make arrangements to write a deferred examination. These students are required to submit a Request for Accommodation for Religious Obligations to the Faculty concerned as soon as possible and no later than three weeks prior to the first day of the final examination period.

Further information on final examinations can be found at https://usgc.ontariotechu.ca/policy/policy-library/policies/academic/procedures-for-final-examination-administration.php

Freedom of Information and Protection of Privacy Act:

The following is an important notice regarding the process for submitting course assignments, quizzes, and other evaluative material in your courses in the Faculty.

Ontario Tech University is governed by the Freedom of Information and Protection of Privacy Act ("FIPPA"). In addition to providing a mechanism for requesting records held by the university, this legislation also requires that the University not disclose the personal information of its students without their consent.

FIPPA's definition of "personal information" includes, among other things, documents that contain both your name and your Banner (student) ID. For example, this could include graded test papers or assignments. To ensure that your rights to privacy are protected, the Faculty of [Insert Faculty name] encourages you to use only your Banner ID on assignments or test papers being submitted for grading. This policy is intended to prevent the inadvertent disclosure of your information where graded papers are returned to groups of students at the same time. If you still wish to write both your name and your Banner ID on your tests and assignments, please be advised that Ontario Tech University will interpret this as an implied consent to the disclosure of your personal information in the normal course of returning graded materials to students.

If you have any questions or concerns relating to the new policy or the issue of implied consent addressed above, please contact accessandprivacy@ontariotechu.ca

Configure

Notice of Collection and Use of Personal Information:

Throughout this course, personal information may be collected through the use of certain technologies under the authority of the *University of Ontario Institute of Technology Act, SO 2002, c. 8, Sch. O.* and will be collected, protected, used, disclosed and retained in compliance with Ontario's *Freedom of Information and Protection of Privacy Act R.S.O. 1990, c. F.31.*

This course may use the following technologies that may collect, use, disclose and retain personal information (including images) for the purposes described below:

- Respondus Monitor and Proctortrack to maintain academic integrity for examinations.
- Google Meet and Kaltura Virtual Classroom to facilitate remote instruction and interactive learning.
- Peer-shared applications, services or technologies that may be reviewed, assessed, or used as part of coursework.
- Other applications, services, or technologies that support or enhance online learning.

For more information relating to these technologies, we encourage you to visit: https://tlc.ontariotechu.ca/learning-technology/index.php Questions regarding personal information may be directed to: Ontario Tech University Access and Privacy Office, 2000 Simcoe Street North, Oshawa, ON L1G 0C5, email: accessandprivacy@ontariotechu.ca.

By remaining enrolled in this course, you acknowledge that you have read, understand and agree to the terms and conditions under which the technology provider(s) may collect, use, disclose and retain your

personal information. You agree to the university using the technologies and using your personal information for the purposes described in this course outline.

Human Rights and Respect:

Ontario Tech University is committed to providing a campus environment in which all University Members are treated with dignity and to fostering a climate of understanding and mutual respect. The University will not tolerate, ignore or condone Discrimination or Harassment by or against anyone. Examples of Harassing behavior include, but are not limited to; bullying, taunting or mocking someone's race or creed, ridiculing an individual's disability, or targeting individuals with unwanted sexual or negative stereotypical comments about one's sex, gender, sexual orientation, gender identity and/or gender expression. Pursuant to Ontario Tech's Respectful Campus Policy, students are reminded of their role in ensuring a campus environment that is equitable and inclusive. Requirements to refrain from harassment and discrimination apply broadly to the classroom, including in lectures, labs and practicums, as well as through the use of sanctioned and unsanctioned technological tools that facilitate remote learning, e.g. class and other chat functions, video conferencing, electronic mail and texts, and social media content amongst or about University students, faculty and staff.

Freedom of Expression:

Pursuant to Ontario Tech's Freedom of Expression Policy, all students are encouraged to express ideas and perspectives freely and respectfully in university space and in the online university environment, subject to certain limitations. Students are reminded that the limits on Freedom of Expression include speech or behaviour that: is illegal or interferes with the university's legal obligations; defames an individual or group; constitutes a threat, harassment or discrimination; is a breach of fiduciary, contractual, privacy or confidentiality obligations or commitments; and unduly disrupts and interferes with the functioning of the university. In the context of working online, different forms of communication are used. Where permitted, students using "chat" functions or other online forms of communication are encouraged to ensure that their communication complies with the Freedom of Expression Policy.

Copyright Notice:

All teaching materials provided by the instructor throughout the course, including, but not limited to, in whole or in part, recorded lectures, slides, videos, diagrams, case studies, assignments, quizzes, and examinations are subject to the Copyright Act, R.S.C., 1985, c. C-42. Teaching materials are owned by the faculty member, instructor or other third party who creates such works. The copyright owner(s) reserves all intellectual property rights in and to the teaching materials, including the sole right to copy, reproduce, distribute, and modify the teaching materials. Consistent with the university's Intellectual Property Policy, teaching materials are intended only for the educational use of Ontario Tech University students registered in the course that is the subject of this course outline. Any distribution or publishing of this material (e.g. uploading material to a third-party website) is strictly prohibited under the law unless the student has obtained the copyright owner's prior written consent. Any violation of copyright law or the Intellectual Property Policy, if proven, may be subject to sanction as academic misconduct, and/or under the Student Conduct Policy.

Student Course Feedback Surveys:

Student evaluation of teaching is a highly valued and helpful mechanism for monitoring the quality of Ontario Tech University's programs and instructional effectiveness. To that end, course evaluations are administered by an external company in an online, anonymous process during the last few weeks of classes. Students are encouraged to participate actively in this process and will be notified of the dates. Notifications about course evaluations will be sent via e-mail, and posted on Canvas, Weekly News, and signage around the campus.

University Response to COVID-19:

The government response to the COVID-19 pandemic is continually evolving. As new information becomes available from federal and provincial public health authorities, the Province of Ontario and the Regional Municipality of Durham, Ontario Tech University will remain nimble and prepared to respond to government orders, directives, guidelines and changes in legislation to ensure the health and safety of all members of its campus community. In accordance with public health recommendations, the university may need to adjust the delivery of course instruction and the availability and delivery mode of campus services and co-curricular opportunities. Ontario Tech University appreciates the understanding and flexibility of our students, faculty and staff as we continue to navigate the pandemic and work together to demonstrate our strong commitment to academic, research and service excellence during these challenging and unprecedented times.

The Accessibility for Ontarians with Disabilities Act (AODA) standards have been considered in the development of this model course template and it adheres to the principles outlined in the University's Accessibility Policy.