

**Faculty of Science**

# CSCI 2020U: Systems Development and Integration

Course outline for Winter 2020

## 1. Course Details & Important Dates\*

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| Term | Location | Course Type | Day | Time |
| Winter 2020 | UA1120 | Lecture | M, W | 3:40 pm - 5 pm |
| Winter 2020 | UA2220 | Lab | W | 9:40 am - 11:00 am |
| Winter 2020 | ERC1094 | Lab | W | 2:10 pm - 3:30 pm |
| Winter 2020 | UA2240 | Lab | T | 2:10 pm - 3:30 pm |
| Winter 2020 | UA2230 | Lab | T | 2:10 pm - 3:30 pm |
| Winter 2020 | UA2230 | Lab | M | 9:40 am - 11:00 am |
| Winter 2020 | UB2058 | Lab | T | 12:40 pm - 2:00 pm |

## 2. Instructor Contact Information

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| **Instructor Name** | **Office** | **Email** |
| Rohollah Moosavi | UAB 440 | [rohollah.moosavi@ontariotechu.ca](mailto:rohollah.moosavi@ontariotechu.ca) |
| **Office hour:** (UA 2029)  Monday 5pm – 6pm  Wednesday 5pm – 6pm | | |

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| --- | --- |
| **Teaching Assistants Name** | **Email** |
| Jessica jessica | [jessica@uoit.net](mailto:jessica@uoit.net) |
| Gavin Gosling | [gavin.gosling@uoit.net](mailto:gavin.gosling@uoit.net) |
| Ibrahim Mushtaq | [ibrahim.mushtaq@uoit.net](mailto:ibrahim.mushtaq@uoit.net) |
| Dikachi Kalu | [onyedikachi.kalu@uoit.net](mailto:onyedikachi.kalu@uoit.net) |
| Sumeet Dhillon | [sumeet.dhillon@ontariotechu.net](mailto:sumeet.dhillon@ontariotechu.net) |
| Office Hours: During laboratory times or by appointment | |

## 3. Course Description

This course is an introduction to the tools and techniques used in modern software development. Topics covered include configuration management, software design, coding standards, software testing and maintenance, basic software tools, software libraries, graphical user interfaces and network programming.

## 4. Course Design

Lectures in this course will include both presented material, and interactive elements. The classroom interaction will be designed to solidify concepts and techniques learned in the lectures. Examples for this course could include programs, diagrams, and pseudocode.

Learning outcomes:

On the successful completion of the course, students will be able to:

* Use build tools, IDEs, and version control software
* Create complex user interfaces
* Read from, and write to, files
* Read from, and write to, other programs via the network
* Use popular software libraries
* Write multi-threaded programs

## 5. Outline of Topics in the Course

1. Software engineering

2. Version control

3. Build tools

4. Code and design best practices

5. Graphical user interfaces

6. File input and output

7. Socket input and output

8. Multi-threaded programming

9. Software libraries

**6. Required Texts/Readings**

There are no required textbooks for this course. Some Parts of the following textbooks will be covered in lectures.

*1. Software Engineering, 10th edition, by: Ian Sommerville*

*2. Modern Systems Analysis and Design, by Joseph Valacich and Joey George*

Additional readings may be assigned or recommended during the course.

## 7. Assignment and Tests

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| --- | --- | --- |
| Component | Due Date | Weight |
| Labs | Every week | 10% |
| Quizzes | Surprise/Announced | 5% ~ 10% |
| Assignment | March 5, 2020 (due by 11:59pm, Release: 14 February) | 10% |
| Test #1 | February 26, 2020 (in class) | 10% |
| Test #2 | March 18, 2020 (in class) | 15% |
| Group project | March 23, 2020 | 25% |
| Final exam | TBA, April 2020 | 25% |

Final course grades may be adjusted to conform to program or Faculty grade distribution profiles. Further information on grading can be found in Section 5 of the UOIT Academic Calendar.

Any student who misses an examination without a valid medical reason and documentation will receive **zero** for that examination. Those who submit medical documentation will either be given a makeup exam or will have the weight of the examination redistributed.

For assignments and lab assignments, **late submissions will not be accepted**.

Lab assignments are due within 24 hours of the beginning of your lab period, but it is recommended that you finish the labs during the lab period itself in order to ensure proper feedback.

## 9. Students with Disabilities

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| Accommodating students with disabilities at UOIT 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.    Students taking courses on the North Campus Location can visit Student Accessibility Services in the U5 Building located in the Student Life Suite. Students taking courses on the Downtown Oshawa Campus Location can visit Student Accessibility Services in the 61 Charles St. Building, 2nd Floor, Room DTA 225 in the Student Life Suite.    Disability-related support 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, Mon-Fri. For more information on services provided, you can visit the SAS website at <http://uoit.ca/studentaccessibility>    Students may contact Student Accessibility Services by calling 905-721-3266, or email studentaccessibility@uoit.ca    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 [www.uoit.ca/SASexams.](http://www.uoit.ca/SASexams) 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 2 weeks prior to the start of the final examination period. SAS will notify students of the registration deadline date. |

## 10. Academic Integrity

Students and faculty at UOIT 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 UOIT’s regulations on Academic Conduct (Section 5.15 of the Academic Calendar) 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 UOIT’s regulations on academic conduct does not constitute a defense against its application.

Further information about academic misconduct can be found in the Academic Integrity link on your laptop. Extra support services are available to all UOIT students in academic development, study skills, counseling, and peer mentorship. More information on student support services can be found in the Academic Calendar (Section 8).

Additionally, all students are required to follow the Faculty of Science academic policies [(http://www.science.uoit.ca/undergraduate/current-students/academic-policies.php)](http://www.science.uoit.ca/undergraduate/current-students/academic-policies.php). The Faculty of Science academic policies cover topics including academic honesty, missed tests/exams, and more.

## 11. Final Examinations (if applicable)

Final examinations are held during the final examination period at the end of the semester and 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 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. Student ID cards can be obtained at the Campus ID Services, in G1004 in the Campus Recreation and Wellness Centre.

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 week prior to the first day of the final examination period.

Further information on final examinations can be found in Section 5.24 of the Academic Calendar.

## 12. 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 of Science.

As you may know, UOIT 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 UOIT 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 ID. For example, this could include graded test papers or assignments. To ensure that your rights to privacy are protected, the Faculty of Science 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 UOIT 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@uoit.ca

## 13. Course Evaluations

Student evaluation of teaching is a highly valued and helpful mechanism for monitoring the quality of UOIT’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 Blackboard, Weekly News and signage around the campus.