

## Course Outline – Fall 2020

### 3305A: Operating Systems

## 1. General Course Information

### Course Information

CS 3305A: Operating Systems

Monday: 3:30pm – 4:30pm, Wednesday: 3:30pm – 5:30pm, ONLINE

(pre-recorded lectures will be available on OWL)

### Prerequisites

Either (Computer Science 2208A/B and 2211A/B) or (Computer Science 2101A/B and 2208A/B) or (Computer Science 2210A/B, 2211A/B, ECE 3375A/B, and registration in the fourth year of a BESC program in Computer Engineering or Mechatronic Systems Engineering.)

Unless you have either the prerequisites for this course or written special permission from your Dean to enroll in it, you will be removed from this course, and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

Students who have special permission from their Dean to enroll in this course may not have been exposed to some of the background material expected for this course; It is the responsibility of these students to gain familiarity with the material on their own.

## 2. Instructor

Name – Dr. Anwar Haque

Office Location – Middlesex College: MC 415

Phone Number – 519-661-2111 Ext. 87428

E-Mail – ahaque32@uwo.ca

Office Hours (Instructor): Monday: 10am-11am; Wednesday: 10am-11am

(Zoom link and instructions will be provided)

Office hours (Teaching Assistants- TAs): To be announced both on OWL and the course website.

## 3. Course Description

This course presents fundamental concepts related to the design and implementation of operating systems. Topics includes intro to the computer operating system, basic operating system structure, process fundamental, inter-process communication, signal, system calls, process scheduling, process

and thread synchronization and concurrency, memory basics, memory management, file systems and storage servers, and if time permits a few “hot” topics.

Course Schedule: A detailed course schedule will be available on OWL and course website <https://www.csd.uwo.ca/courses/CS3305a/>

Course Delivery Mode: The delivery mode of this course will be asynchronous. However, the quizzes and midterm exam will be scheduled during the lecture time assigned for this course.

Important Sessional Dates:

Classes begin: September 9, 2020  
Thanksgiving (no class): October 12, 2020  
Reading Week: November 2-8, 2020  
Classes end: December 9, 2020

## 4. Course Materials

**Suggested Textbook:** One book is recommended for this course and is available for purchase from the University Bookstore.

- A. Silberschatz, P. Galvin, and G. Gagne *Operating System Concepts (Ninth Edition)*, John Wiley & Sons. Inc, Dec 2012; ISBN: 978-1-118-06333-0

**Lecture Notes:** Lectures notes will be made available on OWL.

**Course Website:** Students should check OWL (<https://owl.uwo.ca>) on a regular basis for news and updates. OWL will be the primary method by which information will be disseminated to all students in the class. Students are responsible for checking the course site on OWL regular basis. The course website is <https://www.csd.uwo.ca/courses/CS3305a/>

## 5. Methods of Evaluation

There are Assignments and Exam components (Quizzes, Midterm, and Final exam) that will be used to determine a student’s mark in the course:

- A final exam worth 40% of the overall mark
- One midterm exam worth 10% of the overall mark
- Ten Quizzes (best eight will be considered) worth 20% of the overall mark
- Six programming assignments worth 30% of the overall mark

A detailed course schedule is available on OWL and the course website: <https://www.csd.uwo.ca/courses/CS3305a/> where a tentative list of topics covered on each test is provided.

The following rules are designed to ensure that students meet certain minimum standards:

- To be eligible to pass the course, a student must receive at least 40% in the exam components (i.e., 40% of 70) and at least 40% in the assignments (i.e., 40% of 30).
- To be eligible to receive an overall grade of 60% or higher in the course, a student must receive at least 50% in the exam component (i.e., 50% of 70) and at least 50% in the assignments (i.e., 50% of 30).

• **Exams**

There is a final exam that is scheduled by the Registrar. There is one midterm (exam date: TBA). There will be a total of ten quizzes (best eight will be considered). Owl's *tests and quizzes* will be used for this purpose. A detailed schedule of these tests is available on OWL and course website.

**Accommodated Evaluations**

There will be no makeup for the Quizzes or the Midterm Exam. If you miss the Quiz or the Midterm Exam, follow the procedure for Academic Accommodation detailed in Section 6 below. If accommodation is approved by your Dean's office, your Final Exam mark will be reweighted to include the weight of the Quiz and Midterm Exam.

• **Assignments**

- Students must submit six assignments through OWL systems (details will be available on OWL).
- To be eligible for marks, assignments must run on the departmental computing equipment (details will be available on OWL). Assignments that work on your own computer but not on departmental equipment will not be eligible for marks.
- Assignments will be made available on the course home page and the students will be notified through OWL system. Students are responsible for checking OWL on a regular basis.
- There will be six assignments (worth 30% of the final mark). Submission instructions will be provided for each assignment.

Table 1: Programming Assignment Workload

Assignment	Due Date	Weight
1	Sept 28	5%
2	Oct 9	5%
3	Oct 23	5%
4	Nov 9	5%
5	Nov 20	5%
6	Nov 27	5%

- All assignments are due by midnight (electronically) of the due date. Late assignments may be handed in, but with a penalty of 20% a day.

- Every effort will be made to have assignments marked and handed back within ten business days of the hand-in date, preferably sooner.

## 6. Accommodation and Accessibility

### Accommodation Policies

Students with disabilities work with Accessible Education (formerly SSD) which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The Academic Accommodation for Students with Disabilities policy can be found at:

[https://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/Academic Accommodation\\_disabilities.pdf](https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Accommodation_disabilities.pdf)

### Academic Consideration for Student Absence

Students will have up to two (2) opportunities during the regular academic year to use an on-line portal to self-report an absence during the semester, provided the following conditions are met: the absence is no more than 48 hours in duration, and the assessment for which consideration is being sought is worth 30% or less of the student's final grade. Students are expected to contact their instructors within 24 hours of the end of the period of the self-reported absence, unless noted on the syllabus. Students are not able to use the self-reporting option in the following circumstances:

- for exams scheduled by the Office of the Registrar (e.g., December and April exams)
- absence of a duration greater than 48 hours,
- assessments worth more than 30% of the student's final grade,
- if a student has already used the self-reporting portal twice during the academic year

If the conditions for a Self-Reported Absence are *not* met, students will need to provide a Student Medical Certificate if the absence is medical, or provide appropriate documentation if there are compassionate grounds for the absence in question. Students are encouraged to contact their Faculty academic counselling office to obtain more information about the relevant documentation.

Students should also note that individual instructors are not permitted to receive documentation directly from a student, whether in support of an application for consideration on medical grounds, or for other reasons. **All documentation required for absences that are not covered by the Self-Reported Absence Policy must be submitted to the Academic Counselling office of a student's Home Faculty.**

For policy on Academic Consideration for Student Absences - Undergraduate Students in First Entry Programs, see:

[https://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/Academic Consideration for absences.pdf](https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Consideration_for_absences.pdf)

and for the Student Medical Certificate (SMC), see:

[http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/medicalform.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf)

### **Religious Accommodation**

Students should consult the University's list of recognized religious holidays, and should give reasonable notice in writing, prior to the holiday, to the Instructor and an Academic Counsellor if their course requirements will be affected by a religious observance. Additional information is given in the Western Multicultural Calendar:

<https://multiculturalcalendar.com/ecal/index.php?s=c-univwo>

You may also be eligible to write the Special Exam if you are in a “Multiple Exam Situation” (see [http://www.registrar.uwo.ca/examinations/exam\\_schedule.html](http://www.registrar.uwo.ca/examinations/exam_schedule.html)).

## **7. Academic Policies**

The website for Registrarial Services is <http://www.registrar.uwo.ca>.

In accordance with policy, <http://www.uwo.ca/its/identity/activatenonstudent.html>, the centrally administered e-mail account provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at his/her official university address is attended to in a timely manner.

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site:

[http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/scholastic\\_discipline\\_undergrad.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf).

Assignments may be subject to submission for similarity review by MOSS that will check for similarity for detecting plagiarism that may indicate cheating.

Completion of this course will require you to have a reliable internet connection and a device that meets the technical requirements for this service. Information about the technical requirements are available at the following link:

<https://www.proctortrack.com/tech-requirements/>

## 8. Support Services

Please visit the Science & Basic Medical Sciences Academic Counselling webpage for information on add/drop courses, academic considerations for absences, appeals, exam conflicts, and many other academic related matters: <https://www.uwo.ca/sci/counselling/>

Please contact the course instructor if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Student Accessibility Services (SAS) at (519) 661-2147 if you have any questions regarding accommodations.

Western University is committed to a thriving campus as we deliver our courses in the mixed model of both virtual and face-to-face formats. We encourage you to check out the Digital Student Experience website to manage your academics and well-being: <https://www.uwo.ca/se/digital/>.

Learning-skills counsellors at the Student Development Centre (<http://www.sdc.uwo.ca>) are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counselling.

Students who are in emotional/mental distress should refer to Mental Health@Western ([http://www.health.uwo.ca/mental\\_health](http://www.health.uwo.ca/mental_health)) for a complete list of options about how to obtain help.

Additional student-run support services are offered by the USC, <http://westernusc.ca/services>.