

Western University
Faculty of Science
Department of Computer Science

General Course Information

Course Information:

Computer Science 1037a
Computer Science Fundamentals II
Course Outline – **Fall Term 2019**

Calendar Description:

A continuation for Engineering Science 1036A/B. Data organization and manipulation; abstract data types and their implementations in an higher level computer language (C); lists, stacks, queues, trees; pointers; recursion; memory allocation and memory management. Intended for students in the Faculty of Engineering
Extra Information: 3 lecture hours, 2 laboratory/tutorial hour.

Prerequisites

Engineering Science 1036A/B.

Antirequisites

Computer Science 1027A/B, Computer Science 2121A/B, Digital Humanities 2221A/B.

Instructor:

L. Magguilli

Office: Middlesex College 386

Office Hours: By Appointment Only (arranged at least one day prior)

E-Mail: lmagguil@uwo.ca

Required Material:

Textbook:

- *Data Structures: A Pseudocode Approach with C, Second Edition*
by Richard F. Gilberg Behrouz A. Forouzan
ISBN-13: 978-0-534-39080-8 ISBN-10: 0-534-39080-3

Course Web Page:

The course website is located within OWL (powered by Sakai). To access the website, navigate to <http://owl.uwo.ca> and login with your university personal computer account (user id and password). Lecture notes, assignments and class information will be posted at this site. You are responsible for checking the course site regularly.

Course Schedule:

CS1037a Section 001

Lecture Times:

Tuesday 8:30 am – 10:30 pm

Thursday 8:30 am – 9:30 am

Location: Summerville House (SH) - Room 2355

Lab Schedule:

Section	Time	Location
002	Thursday : 4:30 PM – 6:30 PM	AC Eng. Bldg. Room 1400
003	Thursday : 1:30 PM – 3:30 PM	AC Eng. Bldg. Room 1400

Scheduled Lectures:

The scheduled lectures for the course use presentation software and appropriate applications software to present the course content. The required course materials supply portions of the course content. Readings and practice exercises will be assigned. Students are expected to come to class prepared, by completing the readings and exercises before class.

Lecture materials will be available on the course website. These materials are intended to aid in note-taking and provide review of course content. They are not complete course notes and are not a substitute for attending lectures

Curriculum Schedule:

The following represents the order the course topics will be presented.

UNIT	Lecture Topic
1	Introduction to the C Programming Language
2	Memory Maps
3	Simple Input / Output
4	Pointers
5	Basic Control Structures
6	Function Memory Allocation and Management
7	Header Files
8	Variables (Scope and Usage)
9	Structures
10	Pseudocode
11	Recursion

12	Stacks
13	Queues
14	Binary Search Trees

By the end of this course, the student will be able comprehend the mechanics of the data structures and the student will be able to utilize these concepts in the C computer language.

Classroom Conduct:

Students are expected to arrive promptly and remain in class until the end of the lecture, so as to not disturb others in the class. The use of laptops, tablet computers, or smart phones *only* to access the course OWL site during lectures and tutorials. No other electronic devices may be used at any time during lectures or tutorials. Any behaviour or activity that may impede the ability of you or other students to learn will not be tolerated and if the behaviour persists the individual(s) involved will be invited to leave the classroom.

Due to the proprietary nature of some of the materials used in the lectures, **no audio recording** will be allowed during any of the class sessions.

Email Contact:

Occasionally email messages may be sent to the entire class or to students individually. Email will be sent to your UWO email address as assigned to you by Information Technology Services (ITS). It is your responsibility to read this email on a frequent and regular basis.

Email contact with the course instructor is encouraged, by sending brief and appropriate message regarding lecture material or assignments. However, please first check the Forums section in OWL to see if the information has already been posted. If you contact the instructor via email or post a question in OWL, you can expect a response in a timely fashion, but not necessarily an instantaneous response. Please use proper, appropriate and respectful English when sending an email message or posting on the course web site.

NOTE: Email messages **must** be sent from your university account and **MUST** include:
“**CS 1037 F19**” in the subject line. (spaces/case do not matter: ex: cs1037f19 works)
Email messages without **CS 1037 F19**” in the subject line will automatically be trapped and deleted by the instructor’s SPAM filter and will **NOT** be available, read or responded to.

Do not use ‘respond to’ for any email originating from OWL (announcements, etc.) – ensure the professor’s email is the in the destination and NOT to: postmaster@owl.uwo.ca

[this is very important – please make sure your understand and follow the standards above.]

NOTE: Please also include a title or topic description of the contents of the email in the subject line.

Student Evaluation (tentative dates):

If for any reason the assignment schedule given below cannot be adhered to, the assignment marks will be pro-rated. (The 5 assignments are worth 20% of the overall mark for the course. If an assignment has to be cancelled for any reason, the remaining assignment weights will be scaled to add up to 20%.)

Element	Weight	Due
Labs	20%	Weekly throughout the term
Assignment 1	3%	Fri. Sept 28
Assignment 2	3%	Fri. Oct 10
Assignment 3	4%	Fri. Oct. 25
Assignment 4	5%	Fri. Nov. 15
Assignment 5	5%	Mon. Dec 02
On-Line Quizzes	20%	TBA
Final	40%	TBA

The due dates of the assignments are shown in the table above. Please note that all these dates are tentative. The due dates will be confirmed when the assignments are posted on OWL. The dates will coincide with the class progression on subsequent topics.

It is the student's responsibility to ensure that the correct version is submitted to OWL. No excuses will be accepted if an incorrect version is submitted instead. Students can resubmit their assignments until the due date. In this case, only the last version will be marked.

Assignments will not be accepted if submitted to the professor's email instead of OWL and will be deleted immediately and deemed un-submitted.

With respect to the labs, each lab must be completed during lab hours where students have to show the TA the results of each lab. 12 labs are scheduled, with each lab worth 2 percent to a maximum of 20%. Which means you may (but not recommended to) miss 2 labs and still receive the full 20%. This also means that there will be no make-up or exceptions for missed labs unless special accommodation is requested through the Academic Counselling Office.

Your assignments may be prepared on a computing system other than the ones provided by the Computer Science department. However, students must ensure that their submitted programs run correctly on the equipment of the Computer Science department.

Important:

To be eligible to obtain a passing mark in the course, the student's final exam grade must be **49%** or higher. There will be **no exceptions** or waiving of this requirement for any reason or circumstance.

Every effort will be made to have assignments marked and handed back within 2 weeks of the hand in date.

Late Policy for Assignments:

- Assignment will be accepted up to one (1) day late.
- Assignments submitted after 6:00 PM on the due date but before 6:00 AM on the day after the posted due date will be deducted 10% of the total grade.
- Assignments submitted after 6:00 AM on the day after the due date but before 6:00 PM on the day after the due date will be deducted 25% of the total grade.
- Assignments submission will be closed at 6:00 PM on the day after the posted assignment due date.
- No assignments can be submitted to OWL after 6:00 PM on the day after the posted assignment due date.

- An assignment that is more than one (1) day late will not be accepted.

- No extensions will be given for assignments. However, in the event of serious medical or compassionate grounds, a student must follow the procedure for Academic Accommodation for Medical Illness as given above. If an academic accommodation is approved by the Dean's office, the weight of the assignment will be moved to one of the two exams.

Late assignments will have a penalty of 10% or 25% of the maximum mark for the assignment deducted based on time of submission as listed in OWL. Thus, if a student would have received 90% on an assignment, if it was submitted three hours late the student would receive 80%, if it was submitted twenty hours late the student would receive 65%

Final Exam:

No electronic devices are allowed during exams (no iPods, laptops, etc)

Cell Phones are **NOT** permitted to be visible or accessible during any part of the examination period.

The use of a calculator is not allowed.

Reference notes or Dictionaries of any kind are not allowed.

Note: Computer-marked multiple-choice exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

- The date, time and location of final exam will be announced by the Registrar's Office. The final exam will be held during the university final examination period.
- Students requesting a deferred final exam prior to the final exam must supply their Dean's Office with written documentation at **least 2 weeks prior** to the Final Exam.
- In the event of serious medical or compassionate grounds, a student must follow the procedure for Academic Accommodation for Medical Illness as given above.
- A "Recommendation of Special Examination" form must be obtained from the Dean's office, to be eligible to write the deferred final exam.

Support Services:

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 661-2147 if you have any questions regarding accommodations.

The policy on Accommodation for Students with Disabilities can be found here:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic%20Accommodation_disabilities.pdf

The policy on Accommodation for Religious Holidays can be found here:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_religious.pdf

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) 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>.

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

Academic Accommodation for Medical Illness

If you are unable to meet the course requirement due to illness or other serious circumstances, you must provide valid medical or other supporting documentation as soon as possible and contact the instructor immediately. It is the student's responsibility to make alternative arrangements with the instructor once the accommodation has been approved.

For further information please see:

Link to policy on Accommodation Consideration for Student Absences

(https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Consideration_for_absences.pdf)

(which includes a link to the Student Medical Certificate)

(https://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf)

Accessibility

Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 x 82147 for any specific question regarding an accommodation.

UWO Contact Information:

Link to the website for Registrarial Services: <http://www.registrar.uwo.ca>

Link to services provided by the University Students' Council: <http://westernusc.ca/services/>

Ethical Conduct

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

Plagiarism: Students must complete their assignments in their own words. Whenever students take an idea, or a passage from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing such as footnotes or citations. Plagiarism is a major academic offence (see Scholastic Offence Policy in the Western Academic Calendar). The University of Western Ontario uses software for plagiarism checking. Students will be required to submit their programs in electronic form for plagiarism checking.

All assignments are individual assignments. You may discuss approaches to problems among yourselves; however, the actual details of the work must be an individual effort.

The role of tutoring is to help students understand course material. Tutors should not write part or all of an assignment for the students who hire them. Having employed the same tutor as another student is not a legitimate defense against an accusation of collusion, should two students hand in assignments judged similar beyond the possibility of coincidence.

Academic dishonesty in assignments and quizzes includes (but is not limited to):

- unacceptable collaboration
 - What is unacceptable? There is a difference between discussing assignments and solutions with fellow students, and working together on the solutions to the point where the work submitted is clearly not individual work. If in doubt, ask your instructor.
- **copying** of another student's assignment
- **allowing** another student to copy your work ← this is also an **Academic Offense**
- using code from an external source (text, instructor, course website) where a student's own code is expected (if in doubt, ask your instructor)

Assignments that are judged to be the result of **academic dishonesty** will, for the student's first offence, be:

- **given a mark of zero for the assignment,**
with an
- **additional penalty equal to the weight of the assignment also being applied.**

You are responsible for reading and respecting the Computer Science Department's policy on:

Scholastic Offences

(http://www.csd.uwo.ca/current_students/undergraduate_students/scholastic_offences.html)

and

Rules of Ethical Conduct

(<http://www.csd.uwo.ca/UnderGrad/ethical.shtml>)

All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (<http://www.turnitin.com>).

All software assignments will be subject to submission for review using MOSS or similar product(s) for detection of plagiarism.