CS1027b COMPUTER SCIENCE FUNDAMENTALS II

Course Description

This course serves as a continuation of both CS1025a/b and CS1026a/b. Major emphasis is placed on the organization and manipulation of abstract data types, such as lists, stacks, queues, and trees. In addition, high-level language implementations of these data types are examined. Object-oriented design principles are emphasized throughout the course. Additional topics include sorting, searching, recursion, and analysis of algorithms. Java is the programming language in use for this course.

Course Prerequisite

- *Computer Science 1025a/b or 1026a/b.*

- Unless you have either the requisites 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.

Instructors

	Section 001	Section 002
Instructor	**Roberto Solis-Oba**	**Steven Beauchemin**
Office	Middlesex College 417	Middlesex College 28C
Office Hours	TBA	TBA
Class	Tuesday 11:30am-1:30pm	Tuesday 3:30pm-5:30pm
Class	Thursday 11:30am-12:30pm	Thursday 3:30pm-4:30pm
Classroom	SH 3345	NCB 113
Email	solis@csd.uwo.ca	beau@csd.uwo.ca

Important Dates Winter 2016

- First day of classes - January 8th
- Last Day of classes - April 11
- Reading week - Monday to Friday, Feb 19-23

- Exam Period - April 14-30

Recommended Text

- Java Software Structures: Designing and Using Data Structures, Lewis and Chase, Addison Wesley, 4th Edition

Course Website

The course website is located at http://www.csd.uwo.ca/courses/CS1027b. All course materials including lecture notes will be posted at this site. It is the student's responsibility to check the course website on a frequent and regular basis.

Course Syllabus

- Introduction to Software Engineering Concepts
- Inheritance Object Oriented Programming
- Abstract Data Types: Lists, Stacks, Queues, Trees
- Recursion
- Analysis of Algorithms
- Sorting and Searching

Teaching Assistants

- To be announced

Lecture and Lab Schedule

The timetable for lectures and labs are posted at http://studentservices.uwo.ca/secure/timetables/mastertt/ttindex.cfm. There are 3 hours of lecture per week and the duration of labs is one weekly hour. The purpose of the labs is to introduce or expand on the core material of this course and to provide programming exercises. Lab instructions are posted on the course website, and include material that must be read before the lab. Attendance at labs is a required part of the course.

Computing Facilities

Each student enrolled at Western is given an UWO email account (with login and password). This login/password lets you login into any machine in any general UWO computing lab.

Email Contact

We occasionally need to send email messages to the class or to students individually. Email is sent to your UWO email address as assigned to you by ITS (Information Technology Services). **It is your responsibility to read this email frequently and regularly** (daily is recommended). You may wish to have this email forwarded to an alternative email address. See the ITS website for directions on forwarding email. In general, email servers like hotmail and yahoo have not always been reliable in previous years. Always test email forwarding.

You should note that email at ITS and other email providers may have quotas or limits on the amount of space they dedicate to each account. Unchecked mail will not accumulate beyond these limits and will result in emails to you being lost. You may be unable to retrieve important messages from your instructors (and you may not know this is happening). Make sure your email quota limits are always satisfied.

You are encouraged to contact the course instructor via email, with concise and appropriate questions you may have regarding course and lecture materials or clarification of assignments. Note that email sent from accounts different from ITS may not reach its destination (for example, such email may be trapped by a spam filter). Always send your course emails from your UWO account.

Student Evaluation

Component	Weight	Due Date (tentative)
Assignment 1	9%	Monday (11:55pm), Feb. 5
Assignment 2	9%	Wednesday (11:55pm), Feb. 28
Assignment 3	9%	Thursday (11:55pm), Mar. 22
Assignment 4	8%	Monday (11:55pm), Apr. 9
Labs	10%	Every week
Midterm Exam	20%	Saturday, March 10
Final Exam	35%	TBA

If for any reason the assignment schedule given above cannot be adhered to, the assignment marks will be pro-rated (the 4 assignments are worth 35% of the overall mark for the course. If an assignment has to be canceled for any reason, the remaining assignment weights will be prorated to add up to 35%). If for any reason the midterm examination has to be cancelled, the final exam will be worth 55% of the final mark.

There will be **no makeup** Midterm Exam, except for students requesting a Special Midterm Exam for religious reasons. These students must have notified the course instructor and filed documentation with their Dean's office at least 2 weeks prior to the Midterm Exam.

If you miss the midterm exam for any other reason, follow the procedure for Academic Accommodation for Medical Illness given below. If accommodation is approved by your Dean's office, your final exam mark will be re-weighted to include the weight of the midterm exam.

To be eligible to receive a **passing grade** in the course (50% or higher), your average on the exams must be at least 45%, and your average on the 4 assignments must be at least 45%. Otherwise your final grade cannot be greater than 48%. To be eligible to receive a grade of 60% or higher in the course (i.e. to be eligible to go on in a Computer Science module), your average on the exams must be at least 50% and your average on the 4 assignments must also be at least 50%. Otherwise your grade cannot be greater than 58%.

Labs

Lab instructions will be available on the course website in advance, and students must bring a hard copy to the lab. It is expected that students will come *prepared* to the labs by reading the instructions and performing the preparatory work in advance.

- Labs begin during the second week of classes.
- There is a total of 10 labs.
- Each completed lab is worth 1% of your final grade.
- You must attend the lab session for which you are registered. There are no make-up labs and students who are absent for a lab do not have the option of attending another lab. We encourage students who encounter serious health or personal difficulties to contact their Dean's office.
- Students must bring their UWO identification to all labs.

Assignments

- Assignment descriptions, including possible changes, updates, and clarifications will be posted on the course website.
- Instructions for the submission of assignments will also be posted on the course website.
- 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.
- Assignments are due at 11:55pm on the due date.
- Late assignments will be penalized at a rate of 10% of the maximum mark per day of lateness. An assignment which is more than **2 days** late will be given a mark of 0%.
- There are no extensions given for assignments. However, in the event of serious medical or compassionate grounds, a student should take supporting documentation to the office of the Dean of their faculty, who will contact the instructor. Workload, exams, minor illnesses, and home computer problems are not valid reasons for being unable to complete an assignment within the allotted time.
- It is the student's responsibility to keep fresh backups of assignments files in case of system crashes or other unforeseen events.
- Assignments are marked by teaching assistants. You are responsible for retrieving your marked assignment within **two weeks** following their return. Past this period, assignment marks are considered final.
- If you have any questions regarding an assignment mark, you must first contact and discuss your concerns with your teaching assistant. If the matter remains unresolved, you may then take your concerns with your course instructor.

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.

Mental Health

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

Tutoring

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

Academic Accomodation for Medical Illness

If you are unable to meet a course requirement due to illness or other serious circumstances, you must provide valid medical or other supporting documentation to your Dean's office as soon as possible and contact your instructor immediately. It is the student's responsibility to make alternative arrangements with their instructor once the accommodation has been approved and the instructor has been informed. In the event of a missed final exam, a "Recommendation of Special Examination" form must be obtained from the Dean's Office immediately. For further information please see this document. A student requiring academic accommodation due to illness should use the Student Medical Certificate when visiting an off-campus medical facility or request a Record's Release Form (located in the Dean's Office) for visits to Student Health Services. The form can be found here: form

For accomodation for work worth at most 10% of the final mark the student needs to contact the Dean's Office.

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 website .

All assignments must be completed individually. You may discuss approaches to problems with other students, however, the work handed in must be your individual effort.

Students must write their essays and 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 in the form of footnotes or citations. Plagiarism is a **serious** and **major** academic offence (see the scholastic offence policy in the Western Academic Calendar).

Assignments that are judged the be the result of academic dishonesty will, as a first offence, be given a mark of 0% with an additional penalty equal to the weight of the assignment. Students are responsible for reading and respecting the Computer Science Departmental policy on Scholastic Offences and Rules of Ethical Conduct.

We will use sophisticated software to detect cases of plagiarism.

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.

No electronic devices will be permitted on tests and exams.

Support Services

The policy on Accommodation for Students with Disabilities can be found here: www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_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

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