Syllabus for Discrete Structures and Algorithms I

MAT 2440 - Section D642 - Fall 2017 (3 credits, 4 hours)

Lecture: Mondays and Wednesdays 12:00 PM to 1:40 PM in room N601B

Instructor:
Dr. Laura Ghezzi
Office: N826
Phone: (718) 260-4965
E-mail: lghezzi@citytech.cuny.edu
E-mail is the best way to contact me.
Webpage: http://websupport1.citytech.cuny.edu/faculty/lghezzi/Ghezzi/

OpenLab Site: https://openlab.citytech.cuny.edu/groups/mat2440-f17-ghezzi/

Office Hours: Mondays and Wednesdays, 10:45AM-11:45AM.
Other times are available by appointment.

Prerequisites: MAT 1375 or higher, and CST 2403 or CST 1201.

Text: *Discrete Mathematics and its Applications*, 7Th edition, by Kenneth H. Rosen (McGraw-Hill), ISBN 9780073383095

Course Description: This course introduces the foundations of discrete mathematics as they apply to computer science, focusing on providing a solid theoretical foundation for further work. Topics include functions, relations, sets, simple proof techniques, Boolean algebra, propositional logic, elementary number theory, writing, analyzing and testing algorithms.
A Computer Algebra System (CAS) is used in class and for assignments. This is a writing intensive course.

Evaluation: **PLEASE READ CAREFULLY**. Your **grade** will be based on the following:

Three one-hour exams worth 100 points each (300 points total);
A one session ***comprehensive final exam*** worth 150 points;
Note: No books, notes, iPhones, etc. are allowed during exams. You are not allowed to leave the classroom during exams.
Writing assignments and CAS assignments (50 points total). The due dates will be announced in class. No late work is accepted.
Homework, class work and class participation (10 points total of extra-credit). A list of homework problems is distributed on the first day of class. After a section has been covered in class, students should do the problems assigned for that section. Students may be assigned to put homework solutions on the board (such homework problems must have been previously worked out in student's notebook). Students will also work on class activities and present solutions on the board.
Most of the questions I ask in exams are closely related to the homework and to the examples shown in class.

So there are 500 total points in this course (and 10 possible points of extra-credit). The grading scale will be no worse than what is shown in the table below and the grades will not be curved. To find your **final class grade** at the end of the semester, add all your points and divide by 500 and then find the corresponding percentage in the table below. To find your approximate grade any time during the semester add up the points you earned, divide by the total possible points, and find the corresponding percentage below.

93-100% (465-500 pts)	A
90-92% (450-464 pts)	A-
87-89% (435-449 pts)	B+
83-86% (415-434 pts)	B
80-82% (400-414 pts)	B-
77-79% (385-399 pts)	C+
70-76% (350-384 pts)	C
60-69% (300-349 pts)	D
0-59% (0-299 pts)	F

Example of grade computation. Suppose you got 80 points in Exam 1, 62 in Exam 2, 73 in Exam 3, 112 in the Final Exam, 48 points in the assignments and 10 points of extra-credit. Your total points are 80+62+73+112+48+10=385, and 385/500=.77. So you have 77% and your semester grade is C+.

There will be **no 'make–up'** exams. *Unless a valid excuse* (medical or family emergencies, University related travel such as athletic or academic competitions) *is presented in advance, a missed exam will receive the score 0.* Students must look at this syllabus carefully and plan well ahead: *personal travel is NOT a valid excuse.* If a student misses an exam for a valid reason and provides a written verification from an appropriate authority (not a family member), that percentage of the grade may be made up on the final.

No extra time will be given in exams to students who arrive late.
Students must take the final exam in order to pass this class. No student will be allowed to take the final exam early.

Attendance: You are expected to attend all class meetings and you are responsible for all the material covered. Attendance will be taken. Lateness and students leaving before the end of the period will be recorded.
The instructor reserves the right to make any changes she considers academically advisable. Any changes in this syllabus will be announced during class meetings and students are responsible to be aware of them.
Students who miss a class meeting should obtain all the information for that meeting from a classmate. Attendance and active participation in class will be taken into consideration while computing the final grade.

Available help: You are encouraged to come to my office hours for help. Extra help is available in the Learning Center in AG 18:
http://websupport2.citytech.cuny.edu/learningcenters/

Important dates: See http://www.citytech.cuny.edu/registrar/academic-calendar.aspx

Thursday, August 31	Last day to drop classes with 75% tuition refund.
Thursday, September 7	Last day to drop classes with 50% tuition refund.
Thursday, September 14	Last day to drop classes with 25% tuition refund.
Friday, **November 10**	**Last day to officially withdraw with "W" grade**.

Academic Integrity: **New York City College of Technology Policy on Academic Integrity**

Students and all others who work with information, ideas, texts, images, music, inventions, and other intellectual property owe their audience and sources accuracy and honesty in using, crediting, and citing sources. As a community of intellectual and professional workers, the College recognizes its responsibility for providing instruction in information literacy and academic integrity, offering models of good practice, and responding vigilantly and appropriately to infractions of academic integrity. Accordingly, academic dishonesty is prohibited in The City University of New York and at New York City College of Technology and is punishable by penalties, including failing grades, suspension, and expulsion. The complete text of the College policy on Academic Integrity may be found in the catalog.

Note: **Students using notes, phones or looking at another student's work etc. during an exam will earn the grade 0 (zero) on that exam.**

Tentative Schedule:

Date	Section(s)	Date	Section(s)
8/28	1.1, 1.3	10/30	4.2, 4.3
8/30	1.3, 1.4	11/1	4.3, (4.5 optional), 4.6
9/6	1.4, 1.5	11/6	4.6, 5.1
9/11	1.6, 1.7	11/8	5.1
9/13	1.7	11/13	5.3, 10.1
9/18	1.7, 2.1, 2.2	11/15	10.1, 10.2, 10.4
9/25	2.2	11/20	10.4, 11.1
9/27	Review and **Exam 1**	11/22	11.1, 11.2
10/2	2.3	11/27	11.2, 11.3
10/4	2.3, 2.4, 2.5	11/29	Review and **Exam 3**
10/11	2.5, 3.1	12/4	11.3, 11.4
10/16	3.1	12/6	11.4 (11.5 optional)
10/18	3.1, 4.1	12/11	5.3, 5.4, 5.5 (selected topics)
10/23	4.1, 4.2	12/13	Review
10/25	Review and **Exam 2**	12/18	**FINAL**

Homework: A list of suggested homework problems for each section is distributed on the first day of class. After a section has been covered in class, students should do the problems assigned for that section. If you have any questions concerning these problems, you are encouraged to come to the office hours.
This homework will not be collected; however, to be successful in this course make sure you have understood the material covered in class and done all the suggested problems. **Most of the questions I ask in exams are closely related to this homework and to the examples shown in class.**
If you don't have time to do the homework, you don't have time to take this class.