

CSC 400: Discrete Structures for Computer Science

Syllabus for Winter 2016-2017

Duru Turkoglu

January 5, 2017

Course Description

This course covers the basic mathematical tools essential for solving problems in computer science. The mathematical topics are presented with emphasis on their applications in computer science. The topics covered include: logic and set theory, relations, functions, graphs, and counting and probability.

Course Information

Instructor:	Duru Turkoglu, CDM 846 (243 S Wabash), 312-362-8127 dturkoglu(at)cdm(*)depaul(*)edu
Schedule:	Section 802: Th 5:45pm - 9:00pm, LEWIS 1007, Loop Section 810: Online
Homepages:	http://condor.depaul.edu/dturkoglu/courses/csc400/ http://d2l.depaul.edu/
Discussion Platform:	http://www.piazza.com/depaul/winter2017/csc400/
Office Hours:	Mondays 9:00am - 10:30am, CDM 846 Thursdays 2:00pm - 3:30pm, CDM 846 Also by email appointments

Textbook

- [Discrete Mathematics with Applications, 4th edition](#) by Susanna S. Epp.
- This book has a great [student companion site](#).

Discussion Platform

The course discussion platform is used for course announcements and class discussion. You **must** subscribe to the course discussion platform. Do it as soon as possible by visiting the address below:

<http://www.piazza.com/depaul/winter2017/csc400/>

The course discussion is an extension of our time in class. This is particularly great for students that miss the live lecture. If you are watching the class online, you should write down any questions that arise, including the time from the recording for reference. Whether you have questions from the recording or otherwise, post your questions on the discussion platform. Everybody is encouraged to discuss and reply to the questions, however, do not send messages that demonstrate non-academic or unprofessional attitude. Respect each other's opinions and do not send messages that are **not** related to the course. The instructor will be following up with a reply to each discussion or question as soon as possible, within 24 hours in general.

Objectives

The objectives of this course is to develop a permanent understanding of:

- i) Logical Forms; ii) Predicates and Quantified Statements; iii) Set Theory; iv) Functions;
- v) Relations; vi) Counting and Probability; and vii) Graphs and Trees.

Assessment

- The course grade will be composed of:

Item	Weight
Homework assignments	20%
Midterm exam	40%
Final exam	40%

- There will be eight (8) homework assignments each of which is worth 2.5% of the total grade.
- The final exam will be comprehensive, i.e., will require knowledge of the material covered in the entire course. You must complete the final exam to pass the course.
- The grading scale will be as below, where pluses/minuses will be given at the high/low ends of each grade range.

Range	Letter
$90 \leq \dots < 100$	A
$80 \leq \dots < 90$	B
$70 \leq \dots < 80$	C
$60 \leq \dots < 70$	D
$0 \leq \dots < 60$	F

Lecture Plan

The below lecture plan is tentative and subject to change as the course progresses.

Week	Date	Plan
1	Jan 5	The Logic of Compound Statements (Ch.2)
2	Jan 12	The Logic of Quantified Statements (Ch.3)
3	Jan 19	Logic (cont'd), Set Theory (Ch.6)
4	Jan 26	Set Theory (cont'd)
5	Feb 2	Relations (Ch.8)
6	Feb 9	Midterm Exam
7	Feb 16	Functions (Ch.7)
8	Feb 23	Counting and Probability (Ch.9)
9	Mar 2	Counting and Probability (cont'd), Graphs and Trees (Ch.10)
10	Mar 9	Graphs and Trees (cont'd)
11	Mar 16	Final Exam

Homework Assignments

1. Students will be submitting the homework assignments using Dropbox on D2L.
2. Homework assignments are usually posted on Thursdays and are due by 11:59PM CST the Wednesday after, six (6) days after they are posted. **Late submissions are not allowed.**
3. Students are encouraged to discuss the homework assignments together, however submitted work must be completed individually. Students must not use or look at anyone else's solution. Plagiarism will result in penalties up to and including failing the course.

Policies

Course Policies

1. Students must subscribe to and follow the discussion platform in a timely fashion.
2. In class and online, students are strongly encouraged to ask questions and offer comments relevant to the course material.
3. All electronic interactions are an extension of the classroom and should be treated as such. While disagreement can be part of the discourse, online communication should remain respectful and appropriate rather than demeaning and/or unprofessional.
4. Lecture slides are a supplement to lectures only. The slides are not intended to be read in lieu of listening to the lecture.
5. Classroom use of a laptop or tablet must normally be restricted to class-related tasks such as note taking, checking references, testing code examples, etc.

Absence Notifications

Should a student need to be absent from class for a medical or personal reason, the [Dean of Students Office](#) can notify faculty of absences not exceeding five days. For additional information, please see: <http://offices.depaul.edu/student-affairs/support-services/academic/Pages/absence-notification.aspx>

The absence notification does not mean the student is excused from course material, assignments or exams. It is ultimately up to each professor to decide what, if any, accommodation can be provided in light of this absence. It is the student's responsibility to follow up with the faculty member to inquire about such accommodations.

Academic Integrity and Plagiarism

This course will be subject to the university's academic integrity policy. More information can be found at <http://academicintegrity.depaul.edu/>. If you have any questions be sure to consult with your professor.

Academic Policies

All students are required to manage their class schedules each term in accordance with the deadlines for enrolling and withdrawing as indicated in the [University Academic Calendar](#). Information on enrollment, withdrawal, grading and incompletes can be found at:

<http://www.cdm.depaul.edu/Current%20Students/Pages/PoliciesandProcedures.aspx>

Changes to Syllabus

This syllabus is subject to change as necessary during the quarter. If a change occurs, it will be thoroughly addressed during class, posted under Announcements in D2L and sent via email.

Exams

To maintain the academic integrity of its online courses, DePaul CDM requires that students registered in online sections complete proctored exams. Students registered in an on-campus section are not allowed to register for a proctored exam, and must take the exam with the on-campus section. For additional information, please see:

<http://www.cdm.depaul.edu/onlinelearning/pages/onlinepolicies.aspx>

Incomplete Grades

An incomplete grade is a special, temporary grade that may be assigned by an instructor when unforeseeable circumstances prevent a student from completing course requirements by the end of the term and when otherwise the student had a record of satisfactory progress in the course. For additional information, please see:

<http://www.cdm.depaul.edu/Current%20Students/Pages/Grading-Policies.aspx>.

Online Course Evaluations

Evaluations are a way for students to provide valuable feedback regarding their instructor and the course. Detailed feedback will enable the instructor to continuously tailor teaching methods and course content to meet the learning goals of the course and the academic needs of the students. They are a requirement of the course and are key to continue to provide you with the highest quality of teaching. The evaluations are anonymous; the instructor and administration do not track who entered what responses. A program is used to check if the student completed the evaluations, but the evaluation is completely separate from the student's identity. Since 100% participation is our goal, students are sent periodic reminders over three weeks. Students do not receive reminders once they complete the evaluation. Students complete the evaluation online in [CampusConnect](#).

Students with Disabilities

Students who feel they may need an accommodation based on the impact of a disability should contact the instructor privately to discuss their specific needs. All discussions will remain confidential. To ensure that you receive the most appropriate accommodation based on your needs, contact the instructor as early as possible in the quarter (preferably within the first week of class), and make sure that you have contacted the Center for Students with Disabilities (CSD) at: <mailto:csd@depaul.edu>

Loop Campus — Lewis Center #1420, 25 E Jackson Blvd.

Phone number: 312-362-8002

Lincoln Park Campus — Student Center #370, 2250 N Sheffield Ave.

Phone number: 773-325-1677

Fax: 312 362 6544

TTY: 773 325 7296

Withdrawal

Students who must withdraw from this course may do so by using the University's web registration system. For additional information, please see: <http://offices.depaul.edu/depaul-central/academics/registration/Pages/withdrawal-policy.aspx>.

Retroactive Withdrawal

This policy assists students for whom extenuating circumstances prevented them from meeting the withdrawal deadline. For additional information, please see:

<http://www.cdm.depaul.edu/Current%20Students/Pages/Enrollment-Policies.aspx>.