COSC 290 Discrete Structures Lab
Fall 2019

Time	Lab A: Tu 9:20am–11:10 am
	Lab B: Tu 1:20pm–3:10 pm
	Lab C: Tu 3:20pm–5:10 pm
Location	Lab A: 329 McGregory
	Lab B: 329 McGregory
	Lab C: 315 McGregory
Instructor	Lab A: Prof. Hiva Samadian (313A McGregory, hsamadian@colgate.edu)
	Lab B: Prof. Michael Hay (303 McGregory, mhay@colgate.edu)
	Lab C: Prof. Michael Hay (303 McGregory, mhay@colgate.edu)
Office hours	Prof. Hiva Samadian
	W,F 2-3:30 PM, please reserve a spot `http://bit.ly/MyOfficeHourSpot`
	Prof. Michael Hay
	M 3:10-5:10
	Tu 12:30-1:20
	W 1:00-2:00

1 Official Course Description

This COSC 290 Lab is a required credit-bearing laboratory and must be taken concurrently with COSC 290.

The course COSC 290 introduces discrete computational structures, methods, and concepts utilized throughout computer science. Topics include types, relations, functions, equivalence and congruence relations, recursion, order relations, partially ordered sets, lattices, Boolean algebras, logic, semi-groups, monoids, morphisms, languages, graphs, trees, and finite state machines. Concrete and abstract data types, circuits, syntactic and semantic program structures provide standard motivating examples and applications. Prerequisites: COSC 102.

2 Materials & Resources

Course schedule/website: `https://www.cs.colgate.edu/~mhay/teaching/2019fa/cosc290lab/` (link is also available through Moodle)

Textbook (required): *Discrete Mathematics for Computer Science* by David Liben-Nowell, First Edition, September 2017. The book is available in the Colgate Bookstore and an eTextbook version is available online. A copy is also available on reserve in the Cooley Science Library.

Textbook (recommended): The lab work will be conducted in Java and make heavy use of object-oriented programming and data structures. It is recommended that you have available a textbook or some other resource that covers not only Java but also basic data structures (lists, maps, trees, hashtables, etc.). Your primary resources from COSC 102 should be sufficient.

Software (optional): The lab computers have all of the software needed for this course installed. These computers are available during lab and open lab hours in the evenings (schedule TBD). If you prefer

to work on a different machine, you are responsible for installing the necessary software and figuring out how to adapt the assignment instructions to match the particulars of your computer setup. This includes some kind of text editor (e.g., Atom, `https://atom.io/`) and Java (version 8 or higher). Each assignment will include any additional software dependencies as well as instructions on how to get up and running.

3 Lab Work

Course assignments: You are expected to be up to date with course readings and assignments.

Lab assignments: Lab assignments are intended to reinforce concepts from lecture and provide an opportunity to develop skills in programming and writing proofs. Some lab assignments may require additional work outside outside of the formal lab period.

Participation in lab: A lab is more than an assignment. It's intended to be a learning environment where students and instructional staff come together to work in a collaborative and interactive way. For this reason, *attendance in lab is mandatory*. Please attend the lab section to which you are enrolled. All of the following factors can be included when determining the grade on a lab assignment: on-time arrival, preparedness (completing relevant reading, reading the lab assignment closely, etc.), productive use of lab time, appropriate and respectful behavior towards lab mates and support staff, on-time departure, etc.

4 Grading Guidelines

The course and the lab are graded separately. An outline of the composition of your lab grade is as follows.

Activity	**Portion of grade**
Average of lab assignments	100%

Attendance and participation are included in your lab assignment grade. Please see attendance policy below.

Grading is on an absolute scale (*i.e.*, no curve). Final grades are determined as follows. As a general rule, fractions are rounded down (e.g., an 89.9 is a B+, not an A-). A grade of A+ is awarded when the student demonstrates truly exceptional performance and is not simply determined by having a high final course grade.

F	D-	D	D+	C-	C	C+	B-	B	B+	A-	A	A+
< 60	60–62	63–66	67–69	70–72	73–76	77–79	80–82	83–86	87–89	90–92	≥ 93	*

5 Schedule & Topics

Please refer to the course syllabus.

6 Policies

Lab attendance You may miss one lab—due to illness or other obligations—without penalty, provided that you complete the assignment on your own. You will automatically receive a zero for any subsequent missed labs.

Late assignment submissions A late submission is one that is not submitted before the deadline. Therefore, an assignment submitted one second after the deadline is considered late. Late submissions will not be graded (earning zero points).

Academic honesty You are expected to abide by Colgate's academic honor code.

The guidelines for this course are as follows:

- For exams and quizzes, you are not permitted to collaborate or use outside resources of any kind unless explicitly stated otherwise.
- Any artifacts (problem set answers, lab write up, code, etc.) that you submit must be *entirely your own work*. Copying from another student or resource, in whole or in part, is strictly forbidden.
- Your artifacts *must never be shared* with another student for any reason.
- Appropriate citation of collaborators/external resources. If an assignment permits you to discuss high-level ideas with other students and you do so, you are expected to clearly acknowledge any collaboration (e.g., a brief note at the top of the submitted work saying something such as, "Talked over problem 5 with Joe Smith" would suffice). If you use any outside resources (beyond assigned readings, course notes, and other instructor-provided materials), you must provide appropriate citation. Again, a simple note indicating the resource and how it was used (e.g., "For problem 4, I used `www.example.com`, which describes an algorithm for [X].").
- Group assignments. If an assignment permits you to work in a group, the expectation is that students work together to complete the assignment and bear a collective responsibility for adhering to the honor code. While collaboration *within* groups is of course expected, generally speaking collaboration *between* groups is forbidden.

Academic Support and Disabilities Services If you feel you may need an accommodation based on the impact of a disability, please contact Lynn Waldman, Director of Academic Support and Disability Services at 315-228-7375 in the Center for Learning, Teaching, and Research.

Sharing work (anonymously) At times throughout the semester, I may want to share your work with other students in the course and on occasion, share your work with the entire class. Any time student work is shared, it will be done anonymously and only short selections of student work will be shared at any one time (e.g., one proof or even just part of a proof). *If you are uncomfortable with me sharing your work anonymously, please let me know.*

7 Student Resources

Open Labs The department organizes open lab hours (schedule TBA, but generally 7-10 most evenings) where you can use department labs to work *collaboratively* with your class mates and seek help from the available teaching assistants (many of whom have taken this course).

One-on-one tutoring It is possible to arrange one-on-one tutoring support through CLTR. This is arranged on a per student basis. Please come see me if you are interested in exploring this option. You may also wish to visit the CLTR website.

Borrowing computing equipment The department has a limited number of computers available for temporary loan. You *must* request and obtain permission before borrowing equipment – simply taking a laptop from the classroom is *not* permitted! If you are interested in borrowing a computer, contact me.

NASC Liaison Group NASC liaisons are a group of natural science and mathematics faculty members dedicated to providing science-interested students from underrepresented groups with mentorship, motivation, and individualized support as they navigate their paths in the sciences at Colgate. NASC liaisons do not replace the role of an academic advisor or offer formal academic advising. Rather a NASC liaison may meet one-on-one with a student to give another perspective on their academic plan;

give tips on effective studying; or introduce a student to upper-class peers, alumni, or other faculty members that might be able to help them. The roles of NASC liaisons will depend on students' needs, and we encourage students to reach out for mentorship and moral support.

The NASC Liaison Group includes professors Gerry Gogel (Chemistry), Engda Hagos (Biology), Silvia Jiménez Bolaños (Mathematics), Patricia Jue (Chemistry), Spencer Kelly (Psychology & Neuroscience), Amy Leventer (Geology), Rebecca Metzler (Physics & Astronomy), Jason Meyers (Biology), and Elodie Fourquet / Joel Sommers (Computer Science). See the website for the most up-to-date information. (`http://www.colgate.edu/academics/departments-and-programs/division-of-natural-sciences-and-mathematics`)

Case Library/Informational Literacy and Reference: Use of the stellar library offerings, including the services of the outstanding reference and informational literacy librarians, is something to be made the most of during your time at Colgate. I suggest you get to know the librarians and to use their exceptional and imaginative expertise for assistance in ways that will enrich and enliven your intellectual studies and academic work.

Counseling Center: Dawn LaFrance, Director. `http://www.colgate.edu/offices/support/counseling`. Life at college can sometimes get bumpy; if you are experiencing emotional and personal difficulties (related to college or not), the Counseling Center offers completely confidential and highly professional services, both for individuals and groups.

ITS: IT Service Desk. Support and expertise related to computer and technology questions and problems, such as Moodle, email, Internet and public access computers on campus. Phone: (228-7111) Location: Third Floor of Case Geyer Library.