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Faculty Syllabi

Spring 2019

COSC 101

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Note: This syllabus may not be applicable to the current semester. Be sure to verify content with the professor(s) listed in the document.

Syllabus
Introduction to Computing I (COSC101B): Spring 2019

Course in a nutshell

See the course website.

Co-requisite: COSC 101L.   Prerequisites: -

Instructor

Hiva Samadian
313 McGregory Hall
x7946
hsamadian@colgate.edu

Office hours:

Wednesdays 4:00-5:30 PM

Organization

Your section is section B
Lecture Meeting Times and Place: MW 2:45 – 4:00 PM, McGregory 314

Course website and Moodle

The URL of the course website is https://cs.colgate.edu/cosc101. This page is common between the three 101 sections and contains general course information: general policies, resources, homework descriptions, exam preparation, and relevant links. You are responsible for keeping up with changes and updates to the site.

Moodle page of the course contains information like this syllabus which is specific for section B of 101 (your section). Check this Moodle page as all announcements and updates will be posted on Moodle. You use it for submitting your assignments. You can also communicate with the class through the forum of the course's Moodle page.

Textbooks

See the course website.

Section specific course work policies

(For general policies of the course see the course website.)

By taking COSC 101 and its lab section you are going to learn Python through fulfilling the activities pertain to each of the following components. Each component has a specific purpose addressed below. Non of the following components alone is enough for learning Python. It is important that you understand the role of each of the components.

Reading

Purpose: This is were you start with and for the first time learn about the new concepts. Task: Complete the assigned reading (see schedule) due before class.

Quizzes

Purposes: (1) To assess the quality of your reading (2) To let the instructor know to what extent the concepts of the reading has to be reviewed in class and to what extent more complex problems have to be practiced. (3) To help you discover the questions that you have but you may not notice from the reading.

Task: Take the quizzes before every class. The quizzes are posted on Moodle at 8:00 AM Mondays and Wednesday. You have until noon to take the quiz. Each quiz has a different and limited time to answer (around 10 minutes). They are graded automatically.

Class

Purposes: (1) To complete your reading task. It is assumed that you may have questions from your readings. Class is an opportunity to get the answer of your questions and make sure you grasped a through understanding of the concepts and quiz problems. As a consequence depend on the result of the quiz and the amount of questions that the students ask an adequate portion of the class might seem review or repetition of reading material. (2) To give a deeper understanding of the concepts and practical use of them in programming. This is done through solving extra problems related to the concepts of the day individually or in groups. (3) To prepare you for the Exams. This is done through practicing writing code on paper (or board) in opposed to programming on computer in Lab.

Class activities to achieve the purposes above, thus, would be divided in two main segments: first segment includes Q/A about your readings and quiz problems, and reviewing the reading concepts and quiz problems via lecture slides (purpose 1); and second segment would be working individually and/or in groups on worksheet problems, and explain the solutions by students and/or instructor (purposes 2 and 3).

Tasks: You are expected to come to class and to actively participate in class activities including asking and answering questions and completing worksheet problems. Students may be called on in class. It is not required to attend in the class.

Lab

Purposes: (1) To practice writing code in computer. (2) Applying the concepts you learned from reading and class in smaller programs. (3) To get prepared for doing the assignments.

Task: Labs are designed to be completed during the lab period. Your lab activities will be evaluated by lab instructor. You program in the lab (not in class).

Homework assignments

Purposes: (1) To face more challenging close-to-real programming

Task: There are weekly homework assignments common between the three sections which will be posted on course website well in advance of their due dates (likely each week on Thursdays). Homework assignments are due on Thursdays and have to be submitted on Moodle. Late homework may turned in after the stated deadline with a penalty of 20% per day.

Exam

Purpose: To assess your understanding the concepts and writing code

Task: There will be three midterm exams and a final exam for the course. The midterms will be 50-minutes in duration and held during class, and the final will be held during the university-schedule exam time. These exams will be done individually. Tentative dates for the three mid-term exams are identified on the schedule. All exams will be cumulative (i.e., they will include everything we've covered up to the point of the exam).

Grading breakdown

Coursework	Portion of grade
Pre-class reading questions	10%
Homework/problem sets	40%
In-class exams (3, weighted as 9%, 11%, 13%)	33%
Final exam	17%

Letter grade assignments are as follows:

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	93–99	≥ 100

Schedule and readings

Readings listed should be completed prior to the class period. Chapters and sections listed refer to "How to Think like a Computer Scientist, Interactive Edition" (link below). The exercises in the interactive textbook are good practice and worth doing. You are also responsible for completing any Moodle quizzes on the reading BEFORE class.
https://runestone.academy/runestone/static/thinkcspy/index.html

U1-U7 refer to class topic units. There are 3 in-class exams; note which unit(s) are covered for each exam.

Wee	Date	Class topics	Reading
1	1/21/2019	(U1) half day intro	none
	1/23/2019	(U1) What is CS? picobot	1.1-1.6
2	1/28/2019	(U1) "Hello, Python", Error types, types, variables, operators, input and print, reassignment, "input-process-output" programs	1.7-1.13, 2.1-2.11, 9.3
	1/30/2019	(U1) review problems, (U2) Conditionals 1: boolean expressions and conditionals	7.1-7.5
3	2/4/2019	(U2) Conditionals 2: Nested and Chained conditionals, Debugging	7.6-7.7, 3.1-3.5
	2/6/2019	(U2) Iteration: for loops on intergers (using range), for loops on strings, accumulator pattern, mapping patterns to loops, loop tab	4.4-4.9, 6.5, 9.14
4	2/11/2019	(U2) Function calls (modules), import, objects (turtle)	4.1-4.3, 5.1-5.4
	2/13/2019	(U3) Functions: defining functions, parameter passing, control flow, return values, scope, main function	6.1-6.4, 6.6-6.9, 7.8
5	2/18/2019	Review problems (U1-U2)	
	2/20/2019	**Exam 1 (U1-U2),** (U3) Functions 2: docstrings, doctests, boolean functions	
6	2/25/2019	(U3) Program development, function composition, and review problems for functions	6.10, 6.11
	02/27/201	(U4) Iteration 3: string indexing, iteration that involves indexing + conditionals, ord/chr functions, nested loops	9.4, 8.1-8.2, 8.10-8.12
7	3/4/2019	(U4) Iteration: while loops (U4) String slicing, sting methods	8.3-8.8, 9.1-9.20
	3/6/2019	(U4) Top-down design (cows and bulls, aka "mastermind"), structure charts, and review problems for iterations	
		Spring Break	
8	3/18/2019	Review problems (U1-U4)	
	3/20/2019	**Exam 2 (U1-U4),** program design example	
9	3/25/2019	(U5) Lists	10.1-10.9, 10.14, 10.17, 10.23-10.25
	3/27/2019	(U5) Lists and references	10.10-10.13, 10.16, 10.18-10.21
10	4/1/2019	(U6) Reading files	11.1-11.5
	04/03/201	(U6) Writing Files; exceptions	11.6-11.7, 13.1-13.4
11	04/08/201	(U6) Dictionaries 1	12.1-12.4
	4/10/2019	(U6) Dictionaries 2, tuples, DSU pattern	12.5, 10.26-10.28
12	4/15/2019	Review problems (U1-U6)	
	4/17/2019	**Exam 3 (U1-U6),** Intro to recursion	
13	4/22/2019	(U7) Recursion 1	15.1-15.3
	04/24/201	(U7) Recursion 2	15.4-15.6
14	04/29/201	review U1-U7	
	5/1/2019	review U1-U7	
		Final Exam 9:00 AM - 11:00 AM, Monday May 06 in class	

Classroom etiquette

You are expected to practice common courtesy with regard to all course interactions. Cell phones must be off before class begins. Laptops must be off or closed unless a classroom activity requires their use. If you have a special need or reason why you need to use a laptop, please come see me to discuss how we can come up with a workable arrangement.

If you are using a laptop or other device in violation of this policy, I will first email you a warning. On the second infraction I will reduce 2% of your overall grade. Each subsequent violation will result in a doubling of the grade reduction amount (i.e., 4% on the third infraction, 8% on the fourth, etc.).

Why ban laptops and other devices in a computer science class unless their use is necessary? For starters, see these articles:

• Ill Communication: Technology, distraction & student performance

• The Pen Is Mightier Than the Keyboard: Advantages of Longhand Over Laptop Note Taking

• Laptop multitasking hinders classroom learning for both users and nearby peers

Academic honesty and collaboration

You are expected to abide by Colgate's academic honor code. Communication (i.e., discussing the problem and possible solutions) while working on assignments is fine, but the work you submit must be your own. Roughly speaking, it is okay to share ideas but it is not okay to share any artifacts (code, write-up, etc.).

Changes

While this syllabus and its schedule is intended to be the static plan for the entire semester, things might happen to enforce adjustment or improvement. Any change will be posted in Moodle, and if necessary, will be discussed in the class.

Appendix

Unexpected Circumstances

If unexpected circumstances arise that could impact your involvement in the course (inability to attend class, complete the homework on time, etc.), please let your instructor know as soon as possible so that we may design appropriate accommodations. Usually these accommodations will be made in consultation with your Administrative Dean.

Additionally, any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact their Administrative Dean for support. Furthermore, please notify your instructor if you are comfortable in doing so, so we may provide any resources available.

Academic Support and Disabilities Services

(Lynn Waldman, Director)

If you feel you may need an accommodation based on the impact of a disability, you should contact your instructor privately to discuss your specific needs. If you have not already done so, please contact Lynn Waldman, Director of Academic Support and Disability Services at 315-228-7375 in the Center for Learning, Teaching, and Research. Reasonable and appropriate accommodations for students with disabilities are determined on a case-by-case basis to ensure that members of the community with disabilities have access to Colgate's programs and services. She also assists students in identifying and managing the factors that may interfere with learning and in developing strategies to enhance learning.

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. To find out more about the group or to contact a member, visit the NASC division webpage. Computer Science Prof. Fourquet is a member of this group.

Information Technology

The Information Technology Service Desk is located on the third floor of Case-Geyer Library and provides services to all students across campus. The help desk consultants assist with problems concerning email, Portal, Moodle, and problems with your personal laptops. Talk to your instructor if problems with your personal computer are effecting your ability to get your work done.

Counseling Center

College life can sometimes get bumpy; if you are experiencing emotional or personal difficulties, the Counseling Center offers completely confidential and highly professional services.

Administrative Deans

Each student is assigned an Administrative Dean who can advise you regarding personal and/or academic matters. Administrative deans often assist students to understand policies and procedures, navigate personal challenges, work with faculty, and engage with parents.