CSc 101: Introduction to Computer Science
MWF 9:00pm–9:50pm, Bio-Sci West room 301
SYLLABUS: Fall 2018

Course Description
This course introduces students to some of the big ideas in computer science. It is intended for students who have no prior programming experience. It will excite students about the application of computer science to various disciplines, and show the social impact possible through the use of technology in developing regions, politics, medicine, and other fields. Several core concepts in computer science will be presented, including logic, problem-solving techniques, data representation, computer hardware, and hardware-software interaction. Students will leave this course with basic programming and problem-solving skills, increased technical literacy, and a greater ability to recognize problems that can be solved with technology.

Course Prerequisites or Co-requisites
This course has no prerequisites or co-requisites.

Instructor and Contact Information
Name: Janalee O’Bagy, Ph.D.
Email: jobagy@email.arizona.edu
Office: Gould-Simpson 854
Office Hours: See the class website

Section Leaders: This class has 6 section leaders. Their contact information and GS lab hours can be found on the class website.

Class website: https://www2.cs.arizona.edu/classes/cs101/fall18

Expected Learning Outcomes
The successful CSC 101 student will be able to:

• Use variables, control structures, basic data types, and functions to write correct and well-formatted 50-100 line programs in Processing to implement all necessary functionality
• Write Processing programs that have both static and dynamic visual/audio outputs, as well as user interactivity with the mouse and keyboard
• Identify the process for and difficulty-level of solving real-world problems for both humans and computers, and identify the key difficulties or challenges
• Explain how computers represent and store various types of information (such as text, images, and video)
• Analyze the function, purpose, and interactions of computers, networks, and communication over such networks
• Navigate webpages, comprehend the components of a web URL, and create webpages in HTML and CSS that display static text, images, and lists, and link to other pages with proper syntax and style
• Identify common computer security threats, and determine what one can do to mitigate their risk of vulnerability to such a threat
• Recognize some of the key figures in CS history, and describe the origins of computer science
• Define what computer science is and characterize how it can be applied by individuals and organizations to solve problems
Class Web Page and D2L
The main course website (www2.cs.arizona/classes/cs101/fall18) will host the majority of the content, including the syllabus, slides, lecture notes, and assignments. We will only use D2L for submitting assignments and posting grades.

Piazza
We will use Piazza as the primary platform for announcements, discussion, and Q&A. You should not email the instructor or section-leaders directly. If you have a general question, post it publicly. If you have a private question, or would like to include your work or solutions to a problem or assignment, post a private question to only the instructors. Never include your code or solutions in a public post.

All students must sign up for Piazza here:

https://piazza.com/arizona/fall2018/csc101/home

Absence and Class Participation Policy
Attendance is expected at all lectures. Students who miss class or exams due to illness or emergency are required to bring documentation from their health-care provider or other relevant professional third parties. Failure to submit third-party documentation will result in unexcused absences.

The UA’s policy concerning Class Attendance, Participation, and Administrative Drops is available at: http://catalog.arizona.edu/policy/class-attendance-participation-and-administrative-drop

The UA policy regarding absences for any sincerely held religious belief, observance or practice will be accommodated where reasonable, http://policy.arizona.edu/human-resources/religious-accommodation-policy.

Absences pre-approved by the UA Dean of Students (or Dean Designee) will be honored. See: https://deanofstudents.arizona.edu/absences.

Makeup Policy for Students Who Register Late
Students who register late may not make up any missed work.

Course Communications
As described above, course communications will be made through the Piazza website for this class, at https://piazza.com/arizona/fall2018/csc101/home

It is your responsibility to make sure that you are signed up for this class in Piazza and to read postings and announcements in a timely manner. Not doing so is not an acceptable reason for failing to meet any announced changes to assignment specifications or deadlines.

Required Texts or Readings
Below are the required and suggested texts for this course. You will not be required to do any reading from the texts in the suggested section that are purchase-only. They are listed as a helpful reference, and will come in handy if the student is interested in more in-depth reading on some topics we will be covering.
• **Required**
  o *Understanding the Digital World* (Brian W. Kernighan)
    ▪ ISBN: 9780691176543
    ▪ Not free, must be purchased (but it isn't expensive!)
    ▪ ISBN-10: 1457187086
    ▪ Not free, must be purchased (but it isn't expensive!)

• **Non-required, but you may find useful**
  o *Code: The Hidden Language of Computer Hardware and Software*
    ▪ Purchase-only
    ▪ Link: https://goo.gl/1LHLV5
  o *Computer Science Illuminated* (6th)
    ▪ Purchase-only
    ▪ Link: https://goo.gl/xQiB1Q
  o *CS Unplugged*
    ▪ Available for purchase, or legally free online PDF
    ▪ Legally free online PDF: https://goo.gl/I0WIIh

The instructor may assign additional readings from online articles, blogs, papers, and library resources.

**In-Class Activities/Quizzes**

Our goal is to foster an atmosphere of engagement and collaboration in all lectures. In addition to opportunities to participate in class daily, there will be specific in-class activities/quizzes that will be graded. These will often be small group (2-4 student) quizzes that are directly relevant to the recent lecture topics. Sometimes they will be individual activities.

Although attendance during lecture is not required and is not a component of the grade, the expectation is that students will attend all lectures and actively participate. *The graded in-class activities/quizzes cannot be made-up or replaced by other work.*

**Assignments and Examinations: Schedule/Due Dates**

**I. Homework Assignments**

There will be 13-15 homework assignments. The majority of these will be programming assignments. These assignments will be graded based on both program correctness (passing all of the test cases) and code formatting style (properly indenting code, good commenting, and following naming/style conventions). A few of the assignments may be written homeworks. In the written homeworks, students will solve logic problems, develop simple algorithms, write short-answer responses, etc. These will be graded within one week after the last valid submission date by the instructors and teaching assistants.

Homework assignments are due at the date/time specified on each assignment.

**Late Days**

Each student will be allocated 3 late days which may be used throughout the semester. A late day allows the student to turn in an assignment up to 24 hours late without penalty. Only one late day can be used per assignment.

If a student has used all of his or her late days, a late submission will not be accepted. Once all late days have been used, a late homework submission will result in a grade of zero.
II. Section Activities
Sections are held as a separate class meeting. Section attendance is mandatory and counts towards the section score for that day. The section activities will be graded for participation, not for correctness.

III. Midterms
There will be midterms on the following dates:
- Midterm 1: September 21, 2018
- Midterm 2: October 12, 2018
- Midterm 3: November 9, 2018

Make-up exams will not be given except for unforeseeable emergencies, and only when supported by documentation from an appropriate source such as a doctor’s note.

Final Examination
Tuesday, December 11, 2018 at 10:30am to 12:30pm (in the regular classroom)

University policies regarding final exams can be found here:
https://www.registrar.arizona.edu/courses/final-examination-regulations-and-information

Grading Scale and Policies
Grades will be computed using the following weighting for the graded components of the class:
- 48% Weekly homework assignments
- 5% In-class activities/quizzes
- 5% Section attendance and participation
- 30% Midterms (3 exams at 10% each)
- 12% Final

The weighted scores computed using this scheme will translate to letter grades as follows:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90% and above:</td>
<td>A</td>
</tr>
<tr>
<td>80% and above, but below 90%:</td>
<td>B</td>
</tr>
<tr>
<td>70% and above, but below 80%:</td>
<td>C</td>
</tr>
<tr>
<td>60% and above, but below 70%:</td>
<td>D</td>
</tr>
<tr>
<td>Below 60%:</td>
<td>E</td>
</tr>
</tbody>
</table>

University policy regarding grades and grading systems is available at
http://catalog.arizona.edu/policy/grades-and-grading-system

Requests for incomplete (I) or withdrawal (W) must be made in accordance with University policies, which are available at http://catalog.arizona.edu/policy/grades-and-grading-system#incomplete and http://catalog.arizona.edu/policy/grades-and-grading-system#Withdrawal respectively.

Dispute of Grade Policy All regrade requests for programming projects must be made within one week of when the grade is returned. All regrade requests for exams must be made within one week of when the graded exam is returned.

Scheduled Topics/Activities
See the class web page for the schedule of topics.
Department of Computer Science Code of Conduct
The Department of Computer Science is committed to providing and maintaining a supportive educational environment for all. We strive to be welcoming and inclusive, respect privacy and confidentiality, behave respectfully and courteously, and practice intellectual honesty. Disruptive behaviors (such as physical or emotional harassment, dismissive attitudes, and abuse of department resources) will not be tolerated. The complete Code of Conduct is available on our department web site.

We expect that you will adhere to this code, as well as the UA Student Code of Conduct, while you are a member of this class.

Classroom Behavior Policy
To foster a positive learning environment, students and instructors have a shared responsibility. We want a safe, welcoming, and inclusive environment where all of us feel comfortable with each other and where we can challenge ourselves to succeed. To that end, our focus is on the tasks at hand and not on extraneous or disruptive activities (e.g., texting, chatting, reading a newspaper, making phone calls, web surfing, etc.). Students observed engaging in disruptive activity will be asked to cease this behavior. Those who continue to disrupt the class will be asked to leave lecture or discussion and may be reported to the Dean of Students.

Threatening Behavior Policy
The UA Threatening Behavior by Students Policy prohibits threats of physical harm to any member of the University community, including to oneself. See http://policy.arizona.edu/education-and-student-affairs/threatening-behavior-students.

Accessibility and Accommodations
At the University of Arizona we strive to make learning experiences as accessible as possible. If you anticipate or experience physical or academic barriers based on disability or pregnancy, you are welcome to let me know so that we can discuss options. You are also encouraged to contact Disability Resources (520-621-3268) to explore reasonable accommodation.

If our class meets at a campus location: Please be aware that the accessible table and chairs in this room should remain available for students who find that standard classroom seating is not usable.

Code of Academic Integrity
Students are encouraged to share intellectual views and discuss freely the principles and applications of course materials. However, graded work/exercises must be the product of independent effort unless otherwise instructed. Students are expected to adhere to the UA Code of Academic Integrity as described in the UA General Catalog. See: http://deanofstudents.arizona.edu/academic-integrity/students/academic-integrity.

Programming assignments must be completed individually; all code you submit must be your own work. You may discuss general ideas of how to approach an assignment, but never specific details about the code to write. Any help you receive from or provide to classmates should be limited and should never involve details of how to code a solution. You must abide by the following rules:

• You may not work as a partner with another student on an assignment.
• You may not show another student your solution to an assignment, nor look at another student’s solution, for any reason.
• You may not have another person "walk you through" an assignment, describe in detail how to solve it, or sit with you as you write it. You also may not provide such help to another student. This includes current or former students, tutors, friends, SLs, paid consultants, people on the Internet, or anyone else.

• You may not post your homework solution code online to ask others for help. This includes public message boards, forums, file sharing sites and services, or any other online system.

If you are retaking the course, you may resubmit a previous solution unless that program was involved in an academic misconduct case. If misconduct was found, you must write a new version of that program.

Under our policy, a student who gives inappropriate help is equally guilty with one who receives it. Instead of providing such help to someone who does not understand an assignment, please point them to other class resources such as lecture examples, the textbook, the IPL, or a SL or instructor. You must not share your solution and ideas with others. You must also ensure that your work is not copied by others, such as making sure to log out of shared computers, not leaving printouts of your code in public places, and not emailing your code to other students or posting it on the web. Please be careful, and contact the instructor if you are unsure whether a particular behavior falls within our policy.

Selling class notes and/or other course materials to other students or to a third party for resale is not permitted without the instructor’s express written consent. Violations to this and other course rules are subject to the Code of Academic Integrity and may result in course sanctions. Additionally, students who use D2L or UA e-mail to sell or buy these copyrighted materials are subject to Code of Conduct Violations for misuse of student e-mail addresses. This conduct may also constitute copyright infringement.

The penalty for a violation of the policy is, at a minimum, a reduction in grade; depending on the seriousness of the violation it may be as high as an overall failing grade for the course.

**UA Nondiscrimination and Anti-harassment Policy**

The University is committed to creating and maintaining an environment free of discrimination; see [http://policy.arizona.edu/human-resources/nondiscrimination-and-anti-harassment-policy](http://policy.arizona.edu/human-resources/nondiscrimination-and-anti-harassment-policy)

**Additional Resources for Students**

UA Academic policies and procedures are available at [http://catalog.arizona.edu/policies](http://catalog.arizona.edu/policies)

Student Assistance and Advocacy information is available at [http://deanofstudents.arizona.edu/student-assistance/students/student-assistance](http://deanofstudents.arizona.edu/student-assistance/students/student-assistance)

**Confidentiality of Student Records**


**Subject to Change Statement**

Information contained in the course syllabus, other than the grade and absence policy, may be subject to change with advance notice, as deemed appropriate by the instructor.