

# CSCI 1302 - Software Development

Instructors:

Michael E. Cotterell <mepcott@uga.edu> (Dr. Supa' Mike)

Bradley J. Barnes <bjb211@uga.edu> (Dr. Barnes)

eLC: <http://elc.uga.edu/>

Piazza: <https://piazza.com/uga/spring2022/csci1302/home>

## Class Times & Instructor Office Hours

*You should only attend class times for which you are registered.*

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
<b>CRN 26245</b>	08:00–08:50	08:00–09:15	-	08:00–09:15	-
Instructor	Cotterell	Cotterell	-	Cotterell	-
Location	Dawson Hall 0110	Dawson Hall 0116	-	Dawson Hall 0116	-
<b>CRN 26311</b>	12:40–01:30	12:45–02:00	-	12:45–02:00	-
Instructor	Barnes	Barnes	-	Barnes	-
Location	Dawson Hall 0116	Biological Science 0404E	-	Biological Science 0404E	-
<b>CRN 36424</b>	03:00–03:50	02:20–03:35	-	02:20–03:35	-
Instructor	Cotterell	Cotterell	-	Cotterell	-
Location	Boyd 0328	Boyd 0328	-	Boyd 0328	-
<b>CRN 49139</b>	03:00–03:50	02:20–03:35	-	02:20–03:35	-
Instructor	Barnes	Barnes	-	Barnes	-
Location	Food Science 0131	Food Science 0131	-	Food Science 0131	-
<hr/>					
<b>Dr. Cotterell</b>	09:10–10:10	09:30–10:30	-	-	-
Location	Boyd 307	Boyd 307	-	-	-
<b>Dr. Barnes</b>	01:45–02:45	-	-	11:30–12:30	-
Location	Boyd 307	-	-	Boyd 307	-

*TA office hours will be posted on eLC.*

**Face-to-Face Instruction:** CSCI 1302 will be taught face-to-face (in-person) in Spring 2022. The class will meet at the regularly scheduled days/times with students attending in-person on campus. In-person attendance and participation is required. Students who miss class will be responsible for getting notes from their classmates. **Lectures will not be recorded.**

## 1 Course Description

Software development techniques in an object-oriented computer language. An intermediate programming course in Java emphasizing systems methods, top-down design, testing, modularity, and structured techniques. Applications from areas of numeric and non-numeric processing and data structures. A copy of the course information sheet for CSCI 1302 is provided alongside this syllabus on eLC. It contains a full list of the student learning outcomes for this course.

### 1.1 Prerequisites & Co-requisites

CSCI 1301 Introduction to Computing and Programming (Prerequisite)

CSCI 1301L CSCI 1301 Lab (Prerequisite)

CSCI 1730 Systems Programming (Optional Co-requisite)

## 2 Required Texts

The instructors of this course, as part of the UGA Affordable Course Materials Initiative, have elected not to require a proprietary textbook for this course. Instead, readings will be provided at no cost via instructor-authored open educational resources. Readings and Quizzes are posted on eLC. Recommendations on how to be successful with the readings and quizzes are outlined later in the syllabus. Additional texts and notes may be suggested for reading throughout the semester. If your instructor posts something for you to read, you are expected to read it and to try to understand it.

### 3 Grading Policy

#### Letter Grade Breakdown

Numeric Score	Grade	Notes
[90, $\infty$ )	A	
[87, 90)	A-	
[84, 87)	B+	
[80, 84)	B	
[77, 80)	B-	
[74, 77)	C+	
[70, 74)	C	
[67, 70)	C-	Not a C or better.
[60, 67)	D	Technically passing.
[0, 60)	F	Failing.

#### Point Breakdown

Category	Percentage Weight
Homework & Quizzes	10%
Software Projects	30%
Exam 1 (eLC)	15%
Exam 2 (eLC)	15%
Exam 3 (eLC)	15%
Final Project	15%

While the instructor reserves the right to drop individual grade items from the grade book, student should neither expect nor ask for any such drops to occur. Numerical final course grades are calculated using the “Point Breakdown” provided above, taking into consideration extra credit opportunities, dropped assignments, and category overflow. The letter grade that a student receives in this course will be the direct mapping of their numerical final course grade to a +/- letter grade using the intervals in the “Letter Grade Breakdown” provided above. **Students should neither expect nor ask for any rounding to occur**, since numerical final course grades already consider extra credit opportunities, dropped assignments, and category overflow (i.e., exceeding the possible number of points in a category overflows into the rest of your numerical final course grade).

### 4 Pedagogy Statement

This course will be instructed using a combination of instructional pedagogies. This is not a class where you only come each day, listen, watch, and take notes! The primary methods for learning new concepts and methods will be by reading and watching provided materials before class, participating in class activities and discussions, and working through the various assignments. It is essential that you not only attend class each day and participate in the activities, quizzes, and discussions, but that you show up prepared having completed the homework and assigned reading.

Learning computer science takes much more than pure memorization. Internalizing a discipline’s way of thinking about and solving problems is a time consuming process, with the keyword being “process”. It requires active participation and questioning both in and out of the classroom. **The instructors of this course will teach you through guidance, i.e., they will provide you with many opportunities to learn the material through class activities, videos, readings, and other assignments, most of which are original works provided to you at no cost and written by the instructors themselves.** If you see a typo or error, then please let us know!

### 5 Homework & Quizzes

Each week, quizzes and homework will be assigned. Sometimes this will be posted on eLC and likely due at the end of a week. Other times, it may include in-class activities and pop quizzes.

### 6 Content Pipeline

The class is setup according to a content pipeline (illustrated below). The more time you spend on a particular step in the pipeline, the easier and more effective you will be during subsequent steps. The idea is that you should be spending most of your time for this course engaging in the readings and asking relevant questions. For example, if the bulk of your time is spent on subsequent steps, then that suggests that you could manage your time better to focus on earlier steps in order to build a more solid foundation. We realize that this this may seem counter-intuitive, but it is highly effective if you take it seriously. **Quantitative data from previous semesters confirm it!**

Readings → Class Lectures, Activities & Discussions → Exercises & Quizzes → Projects → Exams

## 7 Online Mass Examinations

This semester, CSCI 1302 will hold three online exams. Information about each exam (e.g., formats, dates, content covered, etc.) will be posted on Piazza at least one week ahead of time (often earlier). Please plan accordingly.

### 7.1 Make-up Exams

We will only consider makeup exams under extenuating circumstances as described in Section 15.

## 8 Piazza Discussions & Contacting Instructors/TAs

This term we will be using Piazza for class discussion and official announcements. Piazza announcements are considered official course announcements. The system is highly catered to getting you help fast and efficiently from classmates, the TA, and myself. Rather than emailing questions to the teaching staff, we require that you to post your course-related questions on Piazza (see Section 19). If you have any problems or feedback for the developers, email [team@piazza.com](mailto:team@piazza.com). It is your responsibility to ensure that you are enrolled in the CSCI 1302 course on Piazza. Find our class page at:

<https://piazza.com/uga/spring2022/csci1302/home>.

If you have a question about anything pertaining to course material, please post the question to piazza before asking your professor or TA during office hours. You can always post anonymously if you are uncomfortable having your name attached to the question. Typically, many students have the same questions and others will benefit from seeing the Q&A on piazza. This is used only for general Q&A. Code from example questions in class or small code examples that are not related to an assignment are okay.

### 8.1 Private Piazza Posts

If your question is private in nature, then you should create a private post to the "Instructors" group on Piazza instead of sending a direct email to your instructor. To do this, select "Individual Student(s) / Instructor(s)" for the "Post to" option when creating a new post and type in "Instructors". Note, Piazza gets a lot of posts, so it sometimes takes us a while to sort through it all. Please allow 24-hours for a response on a weekday, and 48-hours for a response on the weekend or holiday/break.

## 9 Programming Languages & Coding Assignments

All programming assignment submissions must compile and run on the departmental odin server with the **CSCI 1302 shell profile** activated and using the instructions provided with the assignment. The CSCI 1302 shell profile enables specific software versions for this course, and unless otherwise stated, you should implement your programming assignments using those versions.

**The CSCI shell profile is not activated by default.** Specific instructions for accessing odin and activating the CSCI 1302 shell profile for your account are included in a "Unix: Tutorial" reading that will be assigned to you at the beginning of the semester. Once setup, you will see a "Setting up environment for CSCI 1302..." message followed by additional information whenever you login to the system.

If you ever have trouble logging into odin, then contact [support@cs.uga.edu](mailto:support@cs.uga.edu) as soon as possible. Forgetting your username or password and waiting on System Support is **NOT** an excuse for late work.

## 10 Academic Honesty

As a University of Georgia student, you have agreed to abide by the University's academic honesty policy, "A Culture of Honesty," and the Student Honor Code. All academic work must meet the standards described in "A Culture of Honesty" found at: <http://www.uga.edu/honesty>. Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. Questions related to course assignments and the academic honesty policy should be directed to the instructor. Furthermore, the Computer Science Department recognizes honesty and integrity as necessary to the academic function of the University and reminds students that the CS faculty require compliance with the University's academic honesty policy. Academic honesty means that any work you submit is your own work.

## 10.1 Common Examples

Common forms of academic dishonesty, which students should guard against, are:

- copying from another student's test paper or laboratory report, or allowing another student to copy from you;
- fabricating data (computer, statistical) for an assignment;
- helping another student to write a laboratory report or computer software code that the student will present as his own work, or accepting such help and presenting the work as your own;
- turning in material from a public or private source such as a book, the Internet, or a tutor as your own work.

## 10.2 Prevention

Three steps that you can personally take to help prevent academic dishonesty are:

- familiarize yourself with the regulations;
- directly ask your instructor if you have any doubt about what constitutes academic dishonesty; and
- actively refuse to assist students who want to cheat.

## 10.3 Sharing

Unless explicitly stated otherwise, you also agree not to make any portion of your assignments for this class publicly or privately available for others to view. This includes, but is not limited to, posting snippets of your code on websites (e.g., Course Hero, Chegg, etc.). Engaging in activities similar to this will be seen as either giving or receiving unauthorized assistance. Posting course-related questions to question and answer websites (e.g., Chegg, StackOverflow, Yahoo Answers, etc.) should be avoided. If you have a question, then please use Piazza (see Section 8).

### 10.3.1 Sharing with Potential Employers

After completing the course, you may *privately share* any course work that you produced with potential employers as part of your portfolio and or application materials, unless such employers are currently enrolled as a student in CSCI 1302 or there is a reasonable expectation that they will be enrolled as a student in CSCI 1302 in the future.

## 10.4 Getting Help

If you need specific help with portions of your code, then you must consult with the instructor or teaching assistants first (unless expressly and explicitly stated otherwise in the assignment description). Free peer tutoring through the University's Academic Resource Center (ARC) is also usually available. Students can seek assistance via ARC drop-in, appointment, or study pod options. All of the ARC peer tutors are referred by UGA faculty and are accredited by the College Reading and Learning Association (CRLA). For specific times and locations, you can visit <https://dae.uga.edu/>. Students are reminded that they are required to adhere to the academic honesty policy at all times, even when being tutored. **If other students or the tutors are engaging in academically dishonest activities, then you should leave the room or meeting and notify your instructor right away.**

### 10.4.1 Concerning GroupMe-like Services

While GroupMe and other similar services are not strictly prohibited, the instructors do encourage you to communicate over Piazza instead. The main reason for this is that GroupMe-like services are not actively moderated by the instructors and, therefore, everyone who is in the group is responsible for any academically dishonest material that is posted. This would include but is not limited to: quiz answers, exam questions, and code snippets from projects. Students are reminded that they are required to adhere to the academic honesty policy at all times, even when using services like GroupMe. If other students are engaging in academically dishonest activities, then you should stop using the service and notify your instructor right away. As stated in the UGA Student Code of Conduct, "students are expected to act in a manner that demonstrates integrity and respect for others and the campus environment." As such, you are expected to conduct yourselves professionally and be academically honest at all times and on all sites and services related to their participation in the class, whether formal or informal.

## 10.5 Plagiarism

The expectation is that any work you submit for this class must be your own original derivative work of the assigned assignment description and/or skeleton code. Taking any part of another person's work without their permission and without reference and claiming it as your own is plagiarism and will not be tolerated. If you copy, extend, or incorporate another person's work that is not included with an assignment's description and/or skeleton code, then it may not make up a substantial portion of any component of the assignment, and you must cite (in the form of a comment) where you got the code from in order to help avoid plagiarism.

## 10.6 License for Derivative Works

Please also note that most of the assignment descriptions provided by this class are copyrighted and licensed under a Creative Commons BY-NC-ND License, where the ND stands for "No Derivatives." This means that the distribution of derivative works beyond the submission of an assignment is not allowed without express permission from the assignment author. A violation of this is not only academically dishonest, it is a violation of federal copyright law. Derivative works include, but are not limited to, partial and complete implementations of an assignment.

## 10.7 Reporting

All faculty, staff and students are encouraged to report all suspected cases of academic dishonesty. Except for cases pertaining to the Regret Clause (see Section 10.9), all cases of *suspected* academic dishonesty (cheating) will be referred to the Office of the Vice President for Instruction for academic dishonesty. Penalties imposed by the Office of the Vice President for Instruction may include a failing grade in the course and a notation on the student's transcript. Repeated violations are punishable by expulsion from the University.

## 10.8 Sanctions

For this course, the *minimum* sanction for an academic honesty violation will be a zero on any related assignments, an imposed upper limit of letter grade C for final course grade, and a transcript notation of academic dishonesty. The transcript notation can be removed if the student completes no less than 30 hours of community service in the Athens-Clarke County area within 180 days of receiving the sanction (to be confirmed by UGA's Academic Honesty Office). The instructors reserve the right to impose stricter sanctions, if warranted. For example, any violation where theft of another student's work is suspected will result in a letter grade of F in the course and an additional 35 hours of community service, at a minimum, in the same 180 day period.

## 10.9 Regret Clause

If you commit some act that violates the Academic Honesty Policy for this course but bring it to the attention of the course's instructors within 72 hours of committing the act, then the instructors may impose local sanctions that may include an unsatisfactory or failing grade for work submitted, but will not refer the matter for further disciplinary action except in cases of repeated acts.

# 11 Collaboration Policy

Unless explicitly stated otherwise, all assignments are to be completed individually. Collaboration on solution construction is not allowed, except under the explicit direction of your instructor. You may discuss general concepts with other students or tutors, however, you may not discuss the implementation, at any level of granularity, of any of your solutions prior to the submission of the related assignment.

## 11.1 Sharing Homework & Quizzes

You are allowed to share partial and complete solutions to homework assignments and quizzes with other students enrolled in CSCI 1302 during Spring 2022 at any point after the assignment's deadline. This includes sharing via Piazza. Sharing that is done in accordance with these guidelines is permitted and will not contradict other policies in the syllabus.

## 12 Group Work Policy

From time to time, some assignments may explicitly indicate an option for group work. Unless explicitly stated otherwise, when participating in a group assignment, all group members are equally responsible for jointly producing all assignment artifacts. All students in a group, therefore, will receive the same grade for the assignment. For all assignments involving group work, students agree to general practices described above in addition to any other requirements outlined in an assignment's description. Groups who submit group work that was not completed in accordance with these practices will be considered to be in violation of the University's Academic Honesty policy.

## 13 Late Work Policy

Unless explicitly stated otherwise, most assignments in CSCI 1302 are not accepted late. If you fail to meet the submission deadline for an assignment that is not accepted late, then you will receive a grade of 0 for that assignment in the grade book. **Late submissions for projects and homework are permitted;** however, they are subject to the late penalty described in Section 13.1.

### 13.1 Late Project and Homework Penalty

You may submit a project or homework up to two days (i.e., 48 hours) after its final submission deadline. If you submit a project or homework late, then a 10 point deduction is applied to your grade (on a 100 point scale) per day late. For example, if the assignment is due at 11:55 PM on some day, then it's considered one day late if submitted between 11:55:01 PM (i.e., one second after the deadline) and 11:55 PM the next day. Similar logic is applied to determine if an assignment submission is two days late. Although it is theoretically possible for this late penalty to result in a negative grade for a late assignment submission, the lowest grade that we will ever enter in the grade book is 0. You can easily compute the formula above with the following Java code (assuming two days late):

```
int d      = 2;                // number of calendar days late
double x = 0.9;                // percentage grade earned (from 0 to 1)
double z = (d <= 2) ? Math.max(0, x - 0.1 * d) : 0; // late penalty formula
System.out.printf("Grade with late penalty is %.2f%%.\n", z * 100);
```

## 14 Re-grade Policy

You may request a re-grade of any Homework, Project, or Exam any time within 7 calendar days (i.e., not 7 class days) of receiving the grade. Re-grade requests received via Piazza or email will not be considered. Re-grade requests received after the 7 day window will be ignored. To make a request, you must submit a written justification via the form at

<https://goo.gl/forms/HyFJYu4IQLFZqQCA2>.

## 15 Extenuating Circumstances Policy

Students may only make up a missed work (exam), be considered for a due date extension (project), or qualify for a work exemption (quiz/exercise) under extenuating circumstances such as a serious medical injury, bereavement, trauma, or mandatory court attendance provided that a written request is made to the instructor that is **timely, polite, and includes appropriate documentation/evidence** to support the extenuating circumstance. If you need to make such a request under this policy, please create a private post to the "Instructor" group on Piazza as described in Section 8.1.

## 16 Make-up Quiz Policy

No make-ups will be given for quizzes, and so, quizzes are not accepted late. However, students may request an exemption for a quiz under extenuating circumstances (see Section 15).

## 17 Disability Accommodations Policy

Students with a disability or health-related issue who need a class accommodation should make an appointment to speak with the instructor as soon as possible. Students who require such an accommodation for an exam must contact the instructor

at least two weeks before the exam is scheduled. All disability-related excuses must be officially vetted by the University's Disability Resource Center (DRC). This includes accommodations related to face coverings as described in Section 20.1.

## 18 Mental Health and Wellness Resources

If you or someone you know needs assistance, you are encouraged to contact Student Care and Outreach in the Division of Student Affairs at 706-542-7774 or visit <https://sco.uga.edu/>. They will help you navigate any difficult circumstances you may be facing by connecting you with the appropriate resources or services.

- UGA has several resources for a student seeking

**Mental Health Services:** <https://www.uhs.uga.edu/bewelluga/bewelluga>; or

**Crisis Support** <https://www.uhs.uga.edu/info/emergencies>

- If you need help managing stress anxiety, relationships, etc., please visit BeWellUGA ( <https://www.uhs.uga.edu/bewelluga/bewelluga>) for a list of FREE workshops, classes, mentoring, and health coaching led by licensed clinicians and health educators in the University Health Center.
- Additional resources can be accessed through the UGA App.

## 19 Course Correspondence Policy

You are always encouraged to contact the instructional staff whenever you have a question or concern that should not be addressed via a public post in the course's Piazza forum. However, please do **NOT** directly email the instructor or TAs! Instead, please post such questions on Piazza via a private message as described in Section 8.1.

## 20 Coronavirus Information for Students

UGA adheres to guidance from the University System of Georgia and the recommendations from Georgia Department of Public Health (DPH) related to quarantine and isolation. Since this may be updated periodically, we encourage you to review the latest guidance here:

<https://dph.georgia.gov/dph-covid-19-guidance>

The information presented in the subsections that follow is based on guidance **last updated on December 29, 2021**.

### 20.1 Face Coverings

Following guidance from the University System of Georgia, face coverings are recommended for all individuals while inside campus facilities.

### 20.2 How can I obtain the COVID-19 vaccine?

University Health Center is scheduling appointments for students through the UHC Patient Portal<sup>1</sup> – you can learn more about it on the UHC website<sup>2</sup>. The Georgia Department of Health (DPH), pharmacy chains, local providers, and the University System of Georgia also offer the COVID-19 vaccine at no cost to you. To find a COVID-19 vaccination location near you, visit the links below:

<https://georgia.gov/covid-vaccine>  
<https://www.usg.edu/vaccination>

### 20.3 What do I do if I have symptoms?

Students showing symptoms should self-isolate and schedule an appointment with the University Health Center by calling 706-542-1162 (Monday-Friday, 8 a.m.-5 p.m.). Please DO NOT walk-in. For emergencies and after-hours care, see

<https://www.uhs.uga.edu/info/emergencies>.

<sup>1</sup>[https://patientportal.uhs.uga.edu/login\\_dualauthentication.aspx](https://patientportal.uhs.uga.edu/login_dualauthentication.aspx)

<sup>2</sup><https://www.uhs.uga.edu/healthtopics/covid-vaccine>

## 20.4 What do I do if I test positive for COVID-19? (Isolation guidance)

If you test positive for COVID-19 at any time, either through a PCR test, an Antigen test, or a home test kit, you are **required to report it** through the DawgCheck Test Reporting Survey<sup>3</sup>. Follow the instructions provided to you when you report your positive test result in DawgCheck.

As of December 29, 2021, when an individual receive a positive COVID-19 test: Everyone, regardless of vaccination status, should:

- Stay home for 5 days.
- If you have symptoms or your symptoms are resolving after 5 days, you can leave your house and return to class.
- Continue to wear a mask around others for 5 additional days.

## 20.5 What do I do if I have been exposed to COVID-19? (Quarantine guidance)

If you have been exposed (within 6 feet for a cumulative total of 15 minutes or more over a 24-hour period – unmasked<sup>4</sup>) to someone with COVID-19 or to someone with a positive COVID-19 test and you are:

- Boosted, or have become fully vaccinated within the last 6 months (Moderna or Pfizer vaccine) or within the last 2 months (J&J vaccine)
  - You do not need to quarantine at home and may come to class.
  - You should wear a mask around others for 10 days.
  - If possible, get tested on day 5.
  - If you develop symptoms, get tested and isolate at home until test results are received, then proceed in accordance with the test results.
- Unvaccinated, or became fully vaccinated more than 6 months ago (Moderna or Pfizer vaccine) or more than 2 months ago (J&J vaccine) and have not received a booster:
  - You must quarantine at home for 5 days. After that you may return to class but continue to wear a mask around others for 5 additional days.
  - If possible, get tested on day 5.
  - If you develop symptoms, get tested and isolate at home until test results are received, then proceed in accordance with the test results.

You should report the need to quarantine on DawgCheck, and communicate directly with your faculty to coordinate your coursework while in quarantine. If you need additional help, reach out to Student Care and Outreach (sco@uga.edu) for assistance.

## 20.6 Well-being, Mental Health, and Student Support

If you or someone you know needs assistance, you are encouraged to contact Student Care & Outreach (SCO) in the Division of Student Affairs at:

706-542-7774  
<https://sco.uga.edu/>

They will help you navigate any difficult circumstances you may be facing by connecting you with the appropriate resources or services. UGA also has several resources to support your well-being and mental health<sup>5</sup>. Counseling and Psychiatric Services (CAPS) is your go-to, on-campus resource for emotional, social and behavioral-health support<sup>6</sup>, TAO Online Support<sup>7</sup>, and 24/7 support at 706-542-2273. **For crisis support:**

<sup>3</sup>DawgCheck: <https://dawgcheck.uga.edu/>

<sup>4</sup>“Masked-to-masked” encounters are not currently considered an exposure; this type of interaction would not warrant quarantine.

<sup>5</sup><https://wellbeing.uga.edu/>

<sup>6</sup><https://caps.uga.edu/>

<sup>7</sup><https://caps.uga.edu/tao/>



<https://healthcenter.uga.edu/emergencies/>.

The University Health Center offers FREE workshops, classes, mentoring and health coaching led by licensed clinicians or health educators<sup>8</sup>.

## 20.7 Monitoring conditions

Note that the guidance referenced in this syllabus is subject to change based on recommendations from the Georgia Department of Public Health, the University System of Georgia, or the Governor's Office or. For the latest on UGA policy, you can visit:

<https://coronavirus.uga.edu>.

---

*Remember, the course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.*

---

<sup>8</sup><https://healthcenter.uga.edu/bewelluga/>