CSCI 1730
Systems Programming
Spring 2022

Instructor: Sal LaMarca (slamarca@uga.edu). Please call me Sal.
Office: Boyd 622C
Lecture Times: 11:10AM–12:25PM Tuesday and Thursday
Lecture Classroom: Room 2401 in the Miller Plant Science Building
Breakout Lab Sections:

- Section 26313 meets from 12:40PM to 01:30PM on Wednesday in Boyd 201
- Section 26326 meets from 09:10AM to 10:00AM on Friday in Boyd 202
- Section 26337 meets from 11:30AM to 12:20PM on Friday in Boyd 201
- Section 26347 meets from 01:50PM to 02:40PM on Friday in Boyd 201

Brief Description:

This four-hour course covers the basics of UNIX Systems Programming, including (but not limited to) file and directory structures, basic and advanced file I/O, process creation, and interprocess communication. Throughout the semester, the language basics of C and C++ will be covered in order familiarize students with the use of C and C++ in systems programming.

Extended Description:

This course is a *programming intensive* course. Students are expected to spend, on average, eight to twelve hours per week outside of lectures studying course concepts and working on programming assignments. Course grades will be based on exams, projects, breakout lab assignments, and quizzes.

Prerequisite & Co-requisite Requirements:

- CSCI 1301-1301L, Introduction to Computing and Programming (Prerequisite)
- CSCI 1302, Software Development (Prerequisite or Co-requisite)

Students with a weak background in CSCI 1301 may find it difficult to make a good grade in this course. I do *NOT* recommend taking CSCI 1730 and CSCI 1302 during the same semester since both courses are programming intensive.

Required Texts & Materials:

1. Deitel & Deitel. *C++ How to Program* (10th Edition). ISBN-13: 9780134448237.
2. Stevens. *Advanced Programming In The Unix Environment* (3rd Edition). ISBN-13: 9780321637734.
3. You must bring your valid *UGA ONECARD* to all classes, breakout lab sections, office hours, and exams. Students are required to present their *UGA ONECARD* if asked by an instructor or a member of the teaching staff.

Required Hardware and Required Software:

1. All students are required to have a Windows, Mac, or Linux/Unix laptop computer that is capable to to ssh to our departmental server odin.cs.uga.edu. Also, all students are required to have administrative access and sufficient hard drive space on their laptops in order to install any required software used in this course.
2. All students are required to have an active internet connection throughout the semester. Students who lose internet access are required to go to a location that has an active internet connection BEFORE any graded content is due. Students may use the wireless network on UGA's campus in Athens, GA. Lack of internet access is *NOT* an excuse to miss a deadline.
3. All students should install at least three web browsers on their laptops:

   (a) Mozilla Firefox,

(b) Google Chrome, and

(c) one of the following: Brave, Microsoft Edge, or Safari.

If a webpage used by this class does not load correctly in one of these web browsers, then students should try to the open the webpage in another web browser.

4. All students are required to have a USB drive with at least 1 GB (gigabyte) to backup any files they create for programming assignments during this semester. All students are required to backup their own files for this class, and students will not be excused for missing a deadline because one or more of their files were lost or damaged.

eLC: Students should regularly check the course site on eLC. Student grades, course announcements, office hours, assignments, and other information will be posted there. Students should *NOT* use eLC to message or email the instructor or teaching staff; instead, students should follow the email policies stated later in this document.

Attendance Policies: Students are responsible for attending all lecture class periods face to face, their breakout lab section periods face to face (after breakout labs begin), and exams face to face. Attendance may be recorded. Students should bring their UGA ONECARDs, laptops (charge your laptops before class since there may not be enough electrical outlets in the classroom for each student), pencils, and several pieces of blank paper to all lectures and breakout labs. Students are responsible for participating in discussions and active learning exercises. Students should practice the concepts covered in the lectures on a regular, perhaps daily, basis to prepare for future graded assignments and exams. Note-taking and practicing concepts on a regular basis are required for this course.

Absences in this course should be rare and students may discuss getting an absence excused if the absence is due to a serious illness, emergency situation, or COVID-19 symptoms. In the case of a serious illness, emergency situation, or COVID-19 symptoms, students must provide a copy of detailed documentation (doctor's note, etc.) regarding their absence to the lecture instructor's office hour or via email no more than two calendar days after an absence to be considered for an excused absence. If you feel sick enough to miss a class or lab, then you are required to provide a doctor's note (or note from the health center) to the lecture instructor regarding your absence. Students who wish to request an excused absence for religious purposes must send an email that lists all dates needed for an excused absence due to religious purposes this semester to the lecture instructor, and this must be emailed to the lecture instructor before the end of the second week of classes. All absences are considered as unexcused until they are excused by the lecture instructor. The lecture instructor has full authority to decide to excuse an absence or not to excuse an absence. Regardless of an absence being excused or unexcused, students are required to learn all material covered on the day(s) they were absent before the next quiz or exam. Also, regardless of an absence being excused or unexcused, students are responsible for submitting breakout lab and project assignments before their deadlines.

Time Zone Policy: All dates, times, and deadlines used in this class or pertain to this class will use the Eastern Standard Time (EST) time zone and daylight savings time, which is the same time used in Athens, Georgia in the United States. Regardless of the time zone that students are in, all students are responsible for adhering to the time used in Athens, Georgia, for all aspects of this class that use a date, time, or deadline.

Quizzes: Throughout the semester, pop quizzes may take place during face-to-face lecture periods. All quizzes are individual assignments (*no collaboration is permitted* unless otherwise stated by the lecture instructor), and quizzes are typically ten minutes long unless stated otherwise. Students who do not complete and turn in a quiz *BEFORE* its deadline will receive a grade of zero on that quiz. If a quiz is missed due to an excused absence granted by the lecture instructor (as described in the Attendance Policies section), then the student may request by emailing the lecture instructor a reschedule or regrade of that quiz no more than two calendar days after the quiz was missed. If the regrade is granted by the lecture instructor, then typically the missed quiz grade will be replaced by the average grade (scaled if necessary) of the previous quizzes. A maximum of two quizzes maybe excused by the lecture instructor unless the student has an accommodation approved by UGA's Disability Resource Center.

Breakout Lab Sessions: Starting on the second or third week of the semester, breakout lab sessions, also know as labs, will meet once each week for 50 minutes for students to work on coding assignments. Students must attend the breakout lab session time they are registered for. Students are required to bring their *UGA ONECARD* to all labs. All instructions and policies given by your lab TA must be followed. Questions regarding lab grades and programming grades should be discussed with your lab TA before contacting the lecture instructor.

Programming Languages & Coding Assignments: Unless otherwise stated by the instructor or in an assignment, you should implement your programming assignments in C++ or C on our departmental server `odin` (odin.cs.uga.edu). All submissions that involve code are expected to include a `README` file explaining how to compile and run the code in the submission. All submissions must compile and run correctly on our departmental `odin` server. If you submit multiple versions of an assignment, then only the latest submission (before the its late period expires) will be graded. All instructions given in an assignment must be followed; otherwise points may be deducted.

If you have trouble logging into `odin` please contact `support@cs.uga.edu` as soon as possible. Forgetting your username or password and waiting on CS System Support is NOT a valid excuse for late work.

Exams: There will be one exam and a final exam, and both exams will take place in the lecture classroom. Students are required to bring their *UGA ONECARD*, number two pencils, and an eraser to all exams. All exams are individual assignments (*no collaboration is permitted*). All instructions written on an exam or stated by the instructor before or during an exam must be followed. Students late to an exam may have points deducted from their exam grade, and they will have less time to complete the exam due to their lateness. Tentative dates for each exam are given below.

Exam 1:   March 1st, 2022, during the lecture class period in the lecture classroom
Final Exam: May 10th, 2022, 12:00PM(noon)–03:00PM in the lecture classroom

Makeup exams will not be given. However, if exam 1 is missed because of an absence due to an extreme and verified emergency, then it might be excused by the instructor. To be considered for an excused exam absence, students must provide detailed documentation explaining the circumstances to the instructor during the lecture instructor's office hours or via email no more than two calendar days after an exam is missed. Student must leave a copy of their documentation with the instructor. The instructor has full authority to decide whether or not to excuse an exam absence. If the absence is excused, then the final exam score (scaled if necessary) will be counted for the missed exam. If the absence is not excused, then a grade of 0 will be given. Only one exam may be excused. If two exams are missed, then a grade of 0 will be recorded for all missed exams.

Exam 1 must be taken at its scheduled time and place. Also, the final exam must be taken at its schedule time and place unless the student has an official UGA final exam schedule conflict as defined at
`https://reg.uga.edu/general-information/calendars/final-exam-schedule/`.
If a student has an official UGA final exam conflict, then they must bring a completed petition to reschedule,
`https://reg.uga.edu/_resources/documents/curriculum/_documents/exam_petition.pdf`,
and its accompanying documents to the lecture instructor's office hour three weeks before the final exam's date to be considered for an final exam reschedule. Final exams will not be rescheduled for any other reason.

Grade weights: Exam 1 (25%), Final Exam (25%), Quizzes (20%), Projects (18%), Breakout Lab Assignments (12%).

Final Letter Grades: The final course grade will be computed by the weighted average using the aforementioned grade weights, and the final letter grades will be determined according to the following scale:

A ≥ 93	93 > A- ≥ 89	89 > B+ ≥ 87	87 > B ≥ 80	80 > B- ≥ 79
79 > C+ ≥ 77	77 > C ≥ 70	70 > C- ≥ 69	69 > D ≥ 60	F < 60

The instructor reserves the right to curve grades or to assign extra credit on a case-by-case basis. Grades will

NOT be dropped. Extra credit assignments and curves are rare in this class. Students must be registered for this course in order to attend class and to receive any grades. Typically, grades of Incomplete will *NOT* be assigned to students.

Late Work Policy: All graded breakout lab assignments and projects should be submitted *BEFORE* its deadline posted on eLC. A breakout lab assignment maybe submitted 0 hours to 24 hours late with a late penalty of -2 points. A project maybe submitted 0 hours to 24 hours late with a late penalty of -10 points. The late period for a breakout lab assignment and project is 24 hours after the assignment's deadline posted on eLC. Submissions after a late period for these types of assignments will not be accepted. Failure to submit an assignment before its late period expires will result in a grade of zero on that assignment.

Grade Statistics and Grade Distribution Policy: To protect the privacy of the students enrolled in this class, the teaching staff will not provide or discuss, to students or any unauthorized person, any statistics or grade distributions about graded content in this class.

Auditing and Pass/Fail: Since this course is required for computer science majors and space and resources are limited, auditing this class or taking this class as pass/fail will typically not be permitted by the instructor.

Late Adds: No late adds will be permitted to enroll in the course after the drop/add period ends.

Regrade Requests: With the exception of the final exam, students may request a reevaluation of graded materials if they believe the grade is incorrect due to a mistake on part of the teaching staff. If you made a mistake in a graded assignment, then that is *NOT* grounds for a regrade. You cannot change an assignment and resubmit it for a higher grade after its late period expires.

In order to be considered for a regrade request, students must send a regrade request within seven calendar days after the grade was posted on eLC for grades posted to eLC before the last day of class (as defined on UGA's academic calendar). For grades posted on or after the last day of class, students must send a regrade request within two calendar days after the grade was posted on eLC. Regrade requests for labs and projects should be emailed to your breakout lab TA from your UGA email account with a subject that contains "cs1730 regrade request for y", where y is the name of the assignment, and the lecture instructor should be cced on the email. Regrade requests for quizzes and exams should be emailed to your lecture instructor from your UGA email account with a subject that contains "cs1730 regrade request for y", where y is the name of the quiz or exam. The regrade request for labs and projects should include which parts of the assignment were incorrectly graded by the teaching staff. Regrade requests will only be granted in the cases where a grader made a mistake grading your assignment. Regrade requests may result in a lower grade.

Laptop and Cell Phone Policies: Students may use laptops during lectures to take notes, to participate in some classroom activities, and to enhance their classroom experience as long as their usage does not disrupt other students, TAs, or the instructor. No cell phones may be used during class unless you are calling 911 for an emergency. Silence all laptops and put away all cell phones before class starts. Also, dim all laptop screens to avoid disrupting others. If usage of a laptop disrupts others, then a student may be asked to put away the device or to leave the class for that day. Students may not use any electronic devices during an exam unless they receive written permission from the instructor before the start of the exam.

Email: Unfortunately, email communication does not scale to hundreds of students, and students should visit office hours of the teaching staff instead of emailing the instructor with questions about course concepts or policies. However, if you must email the teaching staff, then you must use your UGA email account and put a [cs1730] tag in the subject of your email when corresponding with the instructor or a member of the teaching staff about course related matters. Email communication should NOT be treated as an alternative to meeting with the instructor or teaching staff during office hours. Email will not be used to provide private tutorials or to explain material that was covered in missed lectures or labs. If an email question cannot briefly be answered with a reply email, the instructor or teaching staff will indicate to the student that she or he should see the instructor or a member of the teaching staff during office hours. The teaching staff will

not debug programs through email. If you cannot get in touch with a member of the teaching staff via email, then you should visit them during their next office hour.

Conduct Policy: Students are expected to be courteous and respectful in all interactions with fellow class members, TAs, and the instructor (whether this interaction occurs online, during class, or outside of class). Student misconduct will not be tolerated. Student misconduct includes, but not limited to, arguing with an instructor or TA about course policies, being rude or disrespectful towards a fellow class member or an instructor, sleeping in class, disrupting class, using an electronic device during class in a disruptive manner, abusing resources on our departmental server(s), running malicious software or commands on our departmental server(s), showing up to class late or leaving class early without permission from the instructor, and refusing to follow course policies or instructions stated by an instructor. Students are not permitted to record any part of a lecture or a lab unless they have written permission from the instructor. The instructor and TAs have the right to assign seats or to ask students to move to another seat if they feel it is necessary, and refusing to sit in an assigned seat will also be considered as an act of student misconduct. For cases of student misconduct, students may be warned, asked to leave class, or their final grade might be lowered by one full letter grade (i.e. an A becomes a B, B+ becomes a C+, etc.) at the instructor's discretion depending on the severity of the misconduct. In extreme cases, or if the misconduct persists, a grade of F will be assigned to the student, and the student will not be allowed to attend class thereafter.

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: `https://honesty.uga.edu`. 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.

In addition, students are expected to abide by the CS Academic Honesty policies and this course's policies stated below.

Computer Science Departmental Policy Statement, Academic Honesty:

The Computer Science Department recognizes honesty and integrity as necessary to the academic function of the University. Therefore all students are reminded that the CS faculty requires compliance with the conduct regulations found in the University of Georgia Student Handbook. Academic honesty means that any work you submit is your own work.

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

1. Copying from another student's test paper or laboratory report, or allowing another student to copy from you;
2. Fabricating data (computer, statistical) for an assignment;
3. Helping other student(s) to write a laboratory report or computer software code that the other student(s) will present as their own work, or accepting such help and presenting the work as your own;
4. Turning in material from a public source such as a book or the Internet as your own work.

Steps to help prevent academic dishonesty are:

1. Familiarize yourself with the regulations.
2. If you have any doubt about what constitutes academic dishonesty, ask your instructor or a staff member at the Office of the Vice President for Instruction.
3. Refuse to assist students who want to cheat.

Also, selling, posting, or giving away course content such as slides, notes, or any information about exams, graded assignments, or lectures to others not enrolled in this course is strictly prohibited unless you have written permission from the instructor.

Furthermore, students may not make any portion of your assignments for this class publicly available for

others to view. This includes, but not limited to, posting snippets of your code on help websites or social media. Engaging in such activities will be considered as academically dishonest (unauthorized assistance). With regard to question-and-answer websites (e.g. StackOverflow, Yahoo Answers, etc.), you may ask general questions about programming on such websites that relate to your assignments in this class, however, you must phrase such questions in a way that make them independent of the specific problem you are having in the assignment.

If you need specific help with portions of your code, then you may consult with the instructor or TAs (unless explicitly stated otherwise in an assignment's description). Furthermore, if you copy, paraphrase, or extend material from the Web (in any fashion) or other sources and use that material in the submission of a graded assignment, then you MUST include a citation in your submission that clearly shows where you got the material.

The instructor has the right to run programs to detect evidence of unauthorized assistance (usually in the form of copying or paraphrasing from another person or an unauthorized source) in any assignment submitted by a student in this semester, previous semesters, or future semesters. Also, the instructor has the right to record exams or assign seats during exams for academic honesty purposes.

All faculty, staff, and students are encouraged to report all suspected cases of academic dishonesty. All cases of suspected academic dishonesty will be referred to the Office of the Vice President for Instruction. 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. For further information please refer to the UGA Code of Conduct, available at the URL below.

https://www.conduct.uga.edu/

University Closure: In the event the University closes temporarily during the semester due to inclement weather, emergencies, pandemics, etc., the number of graded assignments maybe reduced. However, the way grades are calculated in this class will typically not change. In such an event, an announcement will be posted on eLC regarding any changes to the class.

Class Accommodation: 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 schedule their exam with the DRC (Disability Resource Center at UGA) at least two weeks before the date of the exam. The exam should be scheduled to start at the same time the class starts the exam.

Communication with Parents, Guardians, etc.: The teaching staff will *NOT* communicate with parents, guardians, relatives, family members, friends, employers, coaches, or representatives of students enrolled in this class unless that student is unable to communicate with the teaching staff due to medical reasons.

Syllabus Policy: Students are responsible for learning and following all policies stated in this syllabus. This course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

Mental Health, Wellness, and Hardship 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. If a student experiences significant personal hardships during the semester that negatively and significantly impacts their work in this course, then that student should contact Student Care and Outreach for a hardship withdrawal at

https://sco.uga.edu/sco/hardship-withdrawals.

Coronavirus Information and Policies:

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

- How can I obtain the COVID-19 vaccine?
  University Health Center is scheduling appointments for students through the UHC Patient Portal (`https://patientportal.uhs.uga.edu/login_dualauthentication.aspx`). Learn more here – `https://www.uhs.uga.edu/healthtopics/covid-vaccine`. The Georgia Department of Health, pharmacy chains and local providers also offer the COVID-19 vaccine at no cost to you. To find a COVID-19 vaccination location near you, please go to: `https://georgia.gov/covid-vaccine`.In addition, the University System of Georgia has made COVID-19 vaccines available at 15 campuses statewide and you can locate one here: `https://www.usg.edu/vaccination`.

- What do I do if I have COVID-19 symptoms?
  Students showing COVID-19 symptoms should self-isolate and schedule an appointment with the University Health Center by calling 706-542-1162 (Monday-Friday, 8 a.m.-5p.m.). Please DO NOT walk-in. For emergencies and after-hours care, see, `https://www.uhs.uga.edu/info/emergencies`.

- What do I do if I test positive for COVID-19?
  If you test positive for COVID-19 at any time, you are required to report it through the DawgCheck Test Reporting Survey. We encourage you to stay at home if you become ill or until you have excluded COVID-19 as the cause of your symptoms. UGA adheres to current Georgia Department of Public Health (DPH) quarantine and isolation guidance and requires that it be followed. Follow the instructions provided to you when you report your positive test result in DawgCheck.

- Guidelines for COVID-19 Quarantine Period (As of 8/1/21; follow DawgCheck or see DPH website for most up-to-date recommendations)
  Students who are fully vaccinated do not need to quarantine upon exposure unless they have symptoms of COVID-19 themselves. All others should follow the Georgia Department of Public Health (DPH) recommendations: Students who are not fully vaccinated and have been directly exposed to COVID-19 but are not showing symptoms should self-quarantine for 10 days. Those quarantining for 10 days must have been symptom-free throughout the monitoring period and continue self-monitoring for COVID-19 symptoms for a total of 14 days. You should report the need to quarantine on DawgCheck (`https://dawgcheck.uga.edu/`), 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. Students, faculty and staff who have been in close contact with someone who has COVID-19 are no longer required to quarantine if they have been fully vaccinated against the disease and show no symptoms.

- 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 `coronavirus.uga.edu`.