

**CSA 499 Senior Capstone  
Fall 2023**

This handout contains information on syllabus together with policies and expectations I have established for the course. Please read the entire document carefully before continuing in this course. The policies and expectations are intended to create a productive learning atmosphere for all students. To participate in the course, students are prepared to abide by these policies and expectations.

**Course Instructor**

Dr. Amber Wagner

Office: UH 4163

Email: [awagner@uab.edu](mailto:awagner@uab.edu)

Office hours: Tuesday/Thursday 12:30-2:00

Please schedule an appointment if those hours are inconvenient for you.

**Teaching Assistant**

Ms. Rishika Lekkala      rlekkala@uab.edu

**Preferred Methods of Communication**

If you have questions, "Inbox on Canvas" is the preferred method of email contact for both the instructor and the TA. This will ensure all correspondence related to this course is organized in one place. Please do NOT send emails directly to the email addresses of the instructor or the TA!

Please expect a response within 24 hours on weekdays and a slower response on weekends (OR Emails received after 5 pm on Friday will be returned Monday morning). For a faster response, include in the subject line of your email a couple of keys describing your questions.

**Instructional Method**

In-person

Class: Monday, Wednesday, Friday 10:10-11:00 CH443

Lab: Friday 9:05-9:55 UH1007

**Course Description**

This capstone course consolidates key concepts in the undergraduate BA curriculum and prepares students for their professional careers. Teamwork and writing are key themes of the course. Students discuss and write about topics in ethics, professional practice, entrepreneurship, intellectual property, licensing (e.g., GPL, MIT), privacy, continuing professional development, professional networking tools, compliance, tolerance, inclusion, appreciation of diversity, and contemporary issues. In an application-oriented project, students put into practice principles and techniques that they have acquired throughout the undergraduate computer science curriculum in the context of their minor discipline. Students take the Major Field Test in Computer Science as a requirement for completing this course. Students should be CS BA majors in their last year of undergraduate study. Lecture and laboratory.

## **Course Objectives**

- Review key concepts in computer science, project management, ethics, intellectual property, teamwork, resumes and interviews, entrepreneurship, and social media impacts on careers via class lectures and lectures from professional guests.
- Analyze, write about, and present issues of ethics in computer science, including ethical codes, privacy concerns, security and hacking, and intellectual property.
- Work in teams on a software engineering project to put into practice principles and techniques acquired throughout the undergraduate curriculum.
- Take the Major Field Test for Computer Science.

## **Prerequisites and/or Corequisites**

Senior standing; CSMT 101 [Min Grade: C] and PHL 115 [Min Grade: C] and CS 303 [Min Grade: C] and (MA 125 [Min Grade: C] or MA 225 [Min Grade: C])

## **Required Textbook**

Ermann and Shauf (2003, 3<sup>rd</sup> ed.) Computers, Ethics, and Society. Oxford University Press.  
ISBN: 9780195143027

## **Additional Course Materials**

Additional reading material will be posted on Canvas.

## **Important Dates**

Last day to drop:	8/28/2023
Last day to withdraw with "W":	10/13/2023
Last day of fall courses:	12/1/2023

## **Time Commitment**

This class meets three times per week for a total of 150 minutes (2.5 hours), and one 50-minute session on Fridays for lab time. In addition to our class time, you should spend about 6 hours per week reading, studying, preparing for class discussions, and completing assignments.

## **Course Activities, Assessments, and Interactions**

This course consists of a variety of activities, assessments, and interactions to support you in achieving the course objectives mentioned above. You will engage in weekly activities, discussions, research papers, teamwork, and presentations. The primary course artifacts required to achieve the course objectives are described below.

### Major Field Test (MFT)

All students must take the Major Field Test for Computer Science. The test will be on **10/20/23** during lab + class. Students do not have to get a specific grade on the test, but any student that does not take the test will fail CS 499. All students enrolled in CS 499 will be automatically registered to take the MFT.

### Research Papers

Two research papers (1500-2000 words) will be assigned. The topics of the paper can come from topics discussed in class, topics presented in the textbook, or related topics subject to instructor approval.

Grading will emphasize clear argumentation, use of sources to support claims, and proper grammar and spelling. A paper template will be provided. The title and abstract will be due one week before the full paper is due.

#### Presentation Summaries

A one-page summary (500 word minimum) and discussion of each of the guest lectures is required. Grading will emphasize the completeness of the summary and relevance of the discussion. Summaries will be due one week from the date of the lecture.

#### Team Software Engineering Project

This project will consist of teams of 3-5 students created by the instructor. Topics will be discussed in class. Grading will be based on originality, quality of code and documentation, a team's self-evaluation of individual contributions to the team, and an oral presentation of the project by each team. At the end of the project, you will be required to fill out a group self-evaluation form to evaluate other team members' and your own contributions to the project. This peer evaluation is used to factor what percentage of the possible points are your final score.

#### Class Presentation

A five-minute presentation of either the first or second research paper with one or two slides (PowerPoint, Prezi, etc.) to strengthen the talking points.

#### Class Participation

Active participation in class exercises, discussions (in class and online), and lectures is highly valued. Attendance alone will not be sufficient to receive full credit.

#### **Grading**

<b>Activity</b>	<b>Weight</b>
Research Papers (2)	25%
Presentation Summaries	10%
Team Project	30%
Class Presentation	5%
Class Participation	30%

#### **Grading Scale**

<b>Points</b>	0-59	60-69	70-79	80-89	$\geq 90$
<b>Grade</b>	F	D	C	B	A

#### **Student Access to Grades**

Grades are posted to Canvas as assignments are graded. If you have a question about any of the grades, contact me, and we will discuss.

### **Add/Drop and Course Withdrawal**

Drop/Add: Deadlines for adding, dropping, or withdrawing from a course and for paying tuition are published in the [Academic Calendar](https://www.uab.edu/students/academics/academic-calendar) (<https://www.uab.edu/students/academics/academic-calendar>) available online.

Review the Full-Term Withdrawal and Refund Policy <https://secure2.compliancebridge.com/uab/portal/getdoc.php?file=338> for information on refunds for dropped courses.

Withdrawal: To avoid academic penalty, a student must withdraw from a course by the withdrawal deadline shown in the academic calendar and receive a grade of W (withdrawn). Failure to attend class does not constitute a formal drop or withdrawal.

### **Title IX Statement**

The University of Alabama at Birmingham is committed to providing an environment that is free from sexual misconduct, which includes gender-based assault, harassment, exploitation, dating and domestic violence, stalking, as well as discrimination based on sex, sexual orientation, gender identity, and gender expression. If you have experienced any of the aforementioned conduct, we encourage you to report the incident. UAB provides several avenues for reporting. For more information about Title IX, policy, reporting, protections, resources and supports, please visit UAB Title IX webpage (<https://www.uab.edu/titleix/>) for UAB's Title IX, UAB's Equal Opportunity, Anti-Harassment, Duty to Report, and Non-Retaliation policies.

### **DSS Accessibility Statement**

**Accessible Learning:** UAB is committed to providing an accessible learning experience for all students. If you are a student with a disability that qualifies under Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act, and you require accommodations, please contact Disability Support Services for information on accommodations, registration and procedures. Requests for reasonable accommodations involve an interactive process and consist of a collaborative effort among the student, DSS, faculty and staff. If you are registered with Disability Support Services, please contact DSS to discuss accommodations that may be necessary in this course. If you have a disability but have not contacted Disability Support Services, please call (205) **934-4205**, visit [their website](https://www.uab.edu/students/disability/) (<https://www.uab.edu/students/disability/>), or their office located in Hill Student Center Suite 409.

### ***Other Policies and Expectations***

#### **Absenteeism or Tardiness**

Students are expected to attend every scheduled class and remain in class for the duration of the session. Failure to attend class, arriving late or leaving early may impact your ability to achieve course objectives which could affect your course grade. An absence, excused or unexcused, does not relieve a student of any course requirement. Regular class attendance is a student's obligation, as is a responsibility for all the work of class meetings, including tests and written tasks. Any unexcused absence or excessive tardiness may result in a loss of participation points.

Please arrive on time. The first 5 minutes of class are often the most important 5 minutes, as the lecture material is introduced, and important administrative issues are discussed.

### **Late Submission Penalties**

Students who fail in submitting their projects/reports/assignments/homework by specified deadlines will receive a reduced mark, on the basis of a **33% reduction for every day after the deadline** (regardless of whether it is a working day or not). Projects/reports/assignments/homework submitted three days after the deadline will not be graded and the students will receive a 0 mark.

### **Orderly, Productive Conduct and Course Netiquette**

I will conduct this class in an atmosphere of mutual respect. I encourage your active participation in class discussions. Each of us may have strongly differing opinions on the various topics of class discussions. The conflict of ideas is encouraged and welcome. The orderly questioning of the ideas of others, including mine, is similarly welcome. However, I will exercise my responsibility to manage the discussions so that ideas and argument can proceed in an orderly fashion. You should expect that if your conduct during class discussions seriously disrupts the atmosphere of mutual respect I expect in this class, you will not be permitted to participate further.

The following are additional course expectations concerning etiquette on how we should treat each other online. It is very important that we consider these values during online discussions and email.

- **Respect:** Each student's opinion is valued as an opinion. When responding to a person during the online discussions, be sure to state an opposing opinion in a diplomatic way. Do not insult the person or their idea. Do not use negative or inappropriate language.
- **Confidentiality:** When discussing topics be sure to be discreet on how you discuss children, teachers, and colleagues. Do not use names of people or names of facilities.
- **Format:** When posting use proper grammar, spelling, and complete sentences. Avoid using ALL CAPITALS. This signifies that you are yelling. Avoid using shortcuts/text abbreviations such as 'cu l8r' for 'See you later.'
- **Relevance:** Think before you type. Keep posts relevant to the discussion board topic.

### **Instructor's Absence or Tardiness**

If I am late in arriving to class, please wait a full 20 minutes after the start of class before you may leave without being counted absent or follow any instructions I may give you about my anticipated tardiness.

### **Communication Devices**

The use of cell phones, beepers, or other communication devices is disruptive, and is therefore prohibited during class. Please switch off these devices or set them in vibration mode during class. Except in emergencies, those using such devices must leave the classroom for the remainder of the class period.

### **Use of AI tools in a course**

A course may allow the use of artificial intelligence (AI) tools in all assignments, or ban the use in some or all assignments so that you can develop the skills necessary to pass future exams that will not allow AI tools. Individual assignments will indicate whether or not AI tools are allowed.

Regardless of whether AI tools are allowed, it is important for students to be able to demonstrate both “proof of work” and “proof of understanding or ability” for all submitted work.

### Rules for use of AI tools in an assignment

When AI tools are allowed (or required) in an assignment, you must provide “proof of work (trails)” including:

- **the prompt** that you used to generate the code
- **the original code** resulting from this prompt
- and a formal **citation where appropriate**

In addition, students must be able to provide “proof of understanding or ability”, that is you **understand** any AI-generated code that you use (if you don't understand it, remove it), and can explain how the code works.

AI-generated code is often wrong, and rarely, if ever, perfect, or even adequate, without alteration. Even if it compiles, it may implement the specification using the wrong strategy or it may solve a different problem. Therefore, with AI-generated code, you must:

- **adapt/improve** the code to better solve the prescribed task
- be able to **discuss improvements you made** to the original code, and why
- **debug** the code
- **test** the code, preferably with unit tests and a testing framework
- **document** the code (which can also reveal issues)

Note that software development involves much more than pure code. AI coding can help you focus on other issues such as the **design** of the algorithm, on the development of **test** data and unit tests, on **profiling** the code to discover efficiency bottlenecks, on **documentation** of the code, and so on.

Perhaps most importantly, you should be able to explain any work that you submit, including the design, code, testing and debugging process and documentation generated by AI, when asked by a TA or professor. You should take notes, or document the code, algorithm or design to remember, and refresh your memory regularly.

Similarly, if a website (e.g., Stack Overflow, Chegg, etc.) is used to complete an assignment, the website should be **formally cited**, and you should **include an explanation** of why the solution you found is appropriate.

**In this course, the use of AI or other sources found on the Internet will be allowed on an assignment basis.** This means that some assignments will permit the use of these tools and others will not. The permissions will be posted on Canvas.

### UAB Copyright Statement

Materials prepared for and/or included in this course are protected by copyright law. They are intended to be used only by students enrolled in this course during the current term and **should not be further disseminated** without prior permission from the course instructor.

## UAB Policies and Resources

### Academic Integrity Code

The University of Alabama at Birmingham expects all members of its academic community to function according to the highest ethical and professional standards. Students, faculty, and the administration of the institution must be involved to ensure this quality of academic conduct. Please review UAB's Academic Integrity Code located at

<https://www.uab.edu/one-stop/policies/academic-integrity-code>

Violations of this integrity and honor code will result in a variety of sanctions as provided in the Code. A minor offense may result in a reduced grade for the associated assignment or homework. A major offense may, at a minimum, result in the failure of the course. Repeat offenders may be expelled from UAB.

It is important to note that

1. "All students are expected to be familiar with the Academic Integrity Code and abide by it. By their continued enrollment at the University, students reaffirm their pledge to adhere to the provisions of the Academic Integrity Code."
2. Unauthorized assistance from third parties including a commercial service such as **chegg.com, coursehero.com and others that may facilitate the violation of the academic integrity code**, or engaging another person (whether paid or unpaid) constitutes an act of cheating and is interpreted as a major offense in the Academic Integrity Code, resulting in F in the course (see chart below). Further, students are prohibited from posting homework, assignments or examination questions to non-UAB web sites without explicit authorization by the instructor.
3. UAB requires both faculty and students uphold the standards for academic integrity. Students who witness academic misconduct have a duty to report it.

### Suggested Penalties for Violations of Different Severity

(Page 21 of Academic Integrity Code)

1 <sup>st</sup> offense minor	1 <sup>st</sup> offense moderate 2 <sup>nd</sup> offense minor	1 <sup>st</sup> offense major 2 <sup>nd</sup> offense moderate 3 <sup>rd</sup> offense any	PROPOSED SANCTION
✓	✓	✓	Academic Integrity workshop
✓			Reduced grade on assignment
✓			Additional Course Work
✓			Opportunity to revise/repeat
✓	✓		Failure of Assignment
✓	✓		Reduced course grade
	✓	✓	F in Course
	✓	✓	Academic Probation
		✓	Academic Suspension
		✓	Academic Expulsion

Please also review UAB Student Code of Conduct at links below:

<https://www.uab.edu/students/accountability/student-conduct-code>

<https://www.uab.edu/policies/content/Pages/UAB-UC-POL-0000781.html>

**Important:** Assignments may be submitted to plagiarizing detection software, such as Turnitin or MOSS. Turnitin is a comprehensive digital repository of potentially plagiarized material and MOSS is a system designed to detect source code plagiarism (<http://theory.stanford.edu/~aiken/moss/>). Your work may be stored in those databases and used as a reference for future comparisons.

Students who plagiarize a computer program (or parts of a program), get others to write a program (or parts of a program), or are found cheating on a quiz/exam, will be reported for academic dishonesty.

### **UAB CS Honor Code**

Please read the UAB Academic Honor Code carefully. Violations of this honor code will result in a variety of actions as provided in the Code. The minimum penalty is 0 on the entire associated homework/exam. Second offense will result in an “F” and possible expulsion from UAB (as the case is forwarded to the ethics board).

Specifically, the Department enforces the following “3 Strikes, You’re Out” penalty escalation procedure for its undergraduate programs:

- If it’s the first violation of the UAB Academic Honor Code by a student, the student may receive a zero (0) mark for the particular assignment or homework.
- If it’s the second violation, the student may receive an “F” grade for the course.
- If it’s the third violation, the student may be referred to appropriate college and university level disciplinary committees. Penalties the student receives may include expulsion from UAB.

For a graduate student, the Department enforces the following “2 Strikes, You’re Out” penalty escalation procedure for its graduate programs, the program in which the student is enrolled may choose to expel the student from the university on the first offense while taking comprehensive examinations, performing research, preparing manuscripts or generally during the performance of other activities related to the process of satisfying degree requirements. For academic misconduct within the context of meeting course requirements, students will be expelled on a second offense. Further details can be found in the graduate catalog:

<http://catalog.uab.edu/graduate/academicprogress/#academicethicsandmisconducttext>.

UAB requires both faculty and students uphold the standards for academic honest and integrity. Students who witness academic misconduct have the duty to report it.