# SOFTWARE ENGINEERING

## CSc4350/6350-Online (Asynchronously)

Group project presentations are online, synchronously and will be in the syllabus schedule.

CRN: 10183 and 10186 – Monday Group CRN: 14352 and 14353 – Tuesday Group

## **Course Description**

Welcome to **CSc4350 and CSc6350: Software Engineering, Critical Thinking through Writing (CTW)** We're going to have a great time this Spring as we explore **SE fundamentals and specifics** together. My name is **William Gregory Johnson** and I'll be your professor. You can call me Mr. Johnson, Greg, or professor. I've taught this course six times. I always enjoy teaching **SE** because this course gives you final parts of the computer science program that apply directly in the workforce. Trust me, even though it is an 'engineering' class, a big surprise awaits you because you will also be learning 'soft-skills' for job preparedness.

Here's a little about me and how I got into **CS.** I fell in love with programming at 14 years old (a long time ago!) and always wanted to discover more about computers, systems, algorithms and education. I defended my PhD dissertation in CS and graduated this past December, here at GSU. I study you, the CS undergraduate student through educational data mining and machine learning with a goal of improving your learning experiences and building prediction models. I'm looking forward to working with all of you this semester. Please do note that this syllabus reflects a plan for the semester. Deviations may become necessary as the semester progresses.

My two office hours are Mondays at 10:00am. You may reserve a fifteenminute time slot here: <u>Google Doc with Office Hours</u>.

### **Course Outcomes**

After finishing this course, you should be able to:

- Express abstract concepts through descriptive, targeted documentation
- Understand standards of documentation, security, and ethics as they relate to software creation
- Engage with standard tools using UML, version control/repository, collaboration, and AGILE / SCRUM techniques (not Kanban)
- Understand the roles involved in AGILE / SCRUM methodology and demonstrate such understanding through classroom presentations and project-based learning in teams

Your new skills should help you in the following ways:

- Ability to apply knowledge of math, and computer science
- Ability to design a system, component, or process within related requirements
- Ability to communicate effectively and function on teams
- Ability to identify, formulate, and understand complex problems using software as a solution

### Assessments

I've designed a variety of assessments to help you practice your disciplinary thinking and skills. More detailed instructions for course assessments can be found in the Welcome To The Course Module in iCollege. Your tests will be proctored using the iCollege Respondus lockdown browser and monitor. Ensure you have the following:

- 1. You must take the test on a laptop or desktop computer with a working webcam and microphone.
- 2. You will be given a 'practice exam' approximately two weeks prior to your real exam to ensure you have the necessary technology.
- 3. You must have your GSU student photo ID on-hand, which will be scanned by the webcam, in order to access each test.

## **Undergraduate Grading Events:**

Event	Quantity	Course Grade Weight
Exams (Midterm and other)	2	30%
Project	1	50%
Final Exam	1	20%

### Graduate Grading Events:

Event	Quantity	Course Grade Weight
Exams (Midterm and other)	2	25%
Project	1	45%
Individual Paper/presentation	1	30%

# **COURSE HELP**

Note that this is a 100% online course for lectures, exams, team activities, presentations, quizzes, and surveys.

### How Do I Contact You?

I prefer to be contacted in the following way(s):

- GSU Email: wjohnson6@gsu.edu
- Extreme emergency: 404-348-6923 (put name and course title in first text, so I know it's not spam.)
- Office: 1 Park Place, 7<sup>th</sup> Floor, Rm 717

## How Do I Access My Course?

You can login to your course via <u>iCollege</u>. If you need more help, you can review the Welcome to iCollege help-guide. If you have problems accessing your course, please contact the helpdesk: helpdesk@gsu.edu. Other resources: <u>https://cetl.gsu.edu/resources/resources-for-learning-remotely/</u> <u>https://success.students.gsu.edu/student-support-services/</u>

# What Are The Required Materials?

The following resources are required for this course:

• Software Engineering, Tenth Edition, Ian Sommerville, ISBN-13: 978-0-13-394-303-0

### What Are The Required Prerequisite(s)?

CSC2720 (Data Structures) is enforced with grade 'C' or higher.

### Are There Any Required Meetings?

There are required online meetings for team presentations, graduate paper/presentations, and a minimum of one team meeting where I participate. Schedules will be established in the first few weeks of class.

### How Do I Succeed In This Course?

If this is your first time taking an online course, you should refer to GSU's <u>online student success guide</u>. I also have specific tips for this course located in the <u>Welcome To The Course Module</u> once you login to the course.

# SCHEDULE

Although this is an online course, we do have a set schedule. Please note that deviations may become necessary as the semester progresses. You'll want to refer to the calendar below frequently as we work together. I've also designed the iCollege course in such a way to help us all stay on track, including building in **module introductions, due dates attached to grade items, rubrics, assignments, announcements, and calendar events**. If this is your first time taking an online course, you'll want to review the <u>Online Time Management</u> <u>Essentials</u> guide.

This course is divided into **FOUR** Modules. For detailed information about what's required for each Module, visit iCollege and check out the Module Introductions. While you're working, I'll also be working hard to give you quality feedback and grade your assessments by the dates indicated below.

So, how much time do you need to spend working on this course? Well, since this is a 3-Credit Hour course GSU recommends that you spend around **3 hours or more per week** interacting with readings, videos, and other sorts of content and **then 3 hours per credit hour per week** completing activities, project meetings, and presentations.

Please talk to your instructor and your advisor before withdrawing from this course. We care about your success and are here to discuss your options with you. The last day to withdraw without penalty is March 02, 2021.

January 11 – January 17	Welcome and course introduction	Your task is to review the video, obtain a text (electronic or printed) by <b>01/17</b>	My task is to validate by <b>01/18</b>
January 19 – January 24	Team formation assessments, attendance survey	Your task is to complete the Module by 01/24	My task is to classify all for project teams by 01/26
January 25 – February 7	Module 1: Chapter 22, Db Fundamentals, announce teams, select team project, start Sprint 1 cycle	Your task is to review videos by 02/07, review rubric for Sprint 1	My task is to present team projects, assign to teams, schedule each first project meeting
February 8 – February 21	Module 2: Chapter 1, 2, Sprint 1 cycle presented 2/24, 2/25, start Sprint 2 cycle <u>Midterm EXAM: 1, 2, 22,</u> <u>Db fundamentals</u>	Your task is to review videos, study, review rubric for Sprint 2 <u>Midterm exam.</u> <b>Open Feb. 21 –</b> <b>12:01am until Feb 22</b> <b>– 11:59pm.</b> Time limited once started	iCollege 'quiz' is MC questions, approx. 20, five or fewer short answer. Content is mainly from assigned exercises and DB Fund. pptx file
February 22 – March 12	Module 3: Chapter 3,4,5,6, Sprint 2 cycle presented 3/22, 3/23, start Sprint 3 cycle	Your task is to review videos, study, review rubric for Sprint 3	Spring Break: March 13 through March 21

March 22 – April 26	Module 4: Chapter 7,8,9, DevOps, Sprint 3 presented 04/23, 04/26, <u>EXAM2:</u> <u>3,4,5,6,7</u>	Your task is to review videos, study, review rubric for Sprint 3 <u>Exam2:</u> Open Apr. 21 - 12:01am until Apr 22 - 11:59pm. Time limited once started	Exam2 is similar to Midterm Exam, but new content.
	Final EXAM: comprehensive (No Dev Ops)	Final exam period: Apr 27, 12:01am, May 07, 11:59pm	TBA

# **COURSE POLICIES**

I have developed several policies that seem to work well in this course. Please review these very closely. You'll have an opportunity to voice your opinion on these policies and other aspects of the course when we reach evaluation points during the semester.

### **GSU Policy Prohibiting Students from Posting Instructor-Generated Materials on External Sites**

The selling, sharing, publishing, presenting, or distributing of instructorprepared course lecture notes, videos, audio recordings, or any other instructor-produced materials from any course for any commercial purpose is strictly prohibited unless explicit written permission is granted in advance by the course instructor. This includes posting any materials on websites such as Chegg, Course Hero, OneClass, Stuvia, StuDocu and other similar sites. Unauthorized sale or commercial distribution of such material is a violation of the instructor's intellectual property and the privacy rights of students attending the class, and is prohibited.

### **Attendance And Participation Policy**

**Course participation is beneficial to your success.** You are encouraged to login to iCollege each day to maintain your participation and timeliness of assigned readings, quizzes, reflections, and surveys. I will be using the analytics of iCollege to evaluate your level in this area.

### Make-up Exam Policy

Make-up exams are not encouraged unless a true emergency situation is involved. If you do find yourself with this dilemma, you will be given a live, online oral exam by myself within 7 days of the missed exam date.

#### **Course Evaluation And Evolution**

Your constructive assessment of this course plays an indispensable role in shaping education at Georgia State. Upon completing the course, please take time to fill out the online course evaluation.

# **OTHER POLICIES**

#### Academic Honesty

All parties involved in cheating and/or plagiarism will be given a zero on the specified assignment for the first offense. By all parties, I mean the person(s) who used someone else's work and the person whose work was used. A second offense of cheating and/or plagiarism will result in a grade of F for the course and possible expulsion from school.

# Academic Honesty Policy: <u>https://deanofstudents.gsu.edu/files/2019/07/Academic-Honesty-Policy.pdf</u>

#### **Special Needs**

Students who wish to request accommodation for a disability may do so by registering with the Office of Disability Services. Students may only be accommodated upon issuance by the Office of Disability Services of a signed <u>Accommodation Plan</u> and are responsible for providing a copy of that plan to instructors of all classes in which accommodations are sought.

Students with special needs should then make an appointment with me during the first week of class to discuss any accommodations that need to be made.

### **FERPA**

In keeping with USG and university policy, this course website will make every effort to maintain the privacy and accuracy of your personal information. Specifically, unless otherwise noted, it will not actively share personal information gathered from the site with anyone except university employees whose responsibilities require access to said records. However, some information collected from the site may be subject to the Georgia Open Records Act. This means that while we do not actively share information, in some cases we may be compelled by law to release information gathered from the site. Also, the site will be managed in compliance with <u>the Family</u> <u>Educational Rights and Privacy Act (FERPA)</u>, which prohibits the release of education records without student permission.

#### **Sexual Harassment**

In instances of sexual misconduct, the present instructor(s) and teaching assistants, are designated as Responsible Employees who are required to share with administrative officials all reports of sexual misconduct for university review. If you wish to disclose an incident of sexual misconduct confidentially, there are options on campus for you do so. For more information on this policy, please refer to the <u>Sexual Misconduct Policy</u> which is included in the Georgia State University Student Code of Conduct.

### **Basic Needs Statement**

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact the Dean of Students for support. Furthermore, please notify the professor if you are comfortable in doing so. This will enable us to provide resources that we may possess. The <u>Embark program at GSU</u> provides resources for students facing homelessness.

### **Campus Carry**

The Campus Carry legislation allows anyone properly licensed in the state of Georgia to carry a handgun in a concealed manner on university property with noted exceptions. Information about the law can be found at <u>safety.gsu.edu/campus-carry</u>. It is the responsibility of the license holder to know the law. Failure to do so may result in a misdemeanor charge and may violate the Georgia State Student Code of Conduct." Please follow the guidelines established by the BOR.