COVID-19 INFORMATION

(Please refer to the following link covidpolicy.pdf (memphis.edu) (GE2040) for the policies on COVID-19 Health and Safety)

Class Format

- In-person/on-ground.
- If you are experiencing symptoms such as sneezing, coughing, or a higher than normal temperature, please get in touch with your health care provider or the Student Health Center at https://www.memphis.edu/health/
- Do not attend class in person if you’re showing symptoms of illness. However, I will make every effort to have class materials available online for those who cannot attend in person.
- Please be reminded that the University currently requires that all persons, regardless of vaccination status, wear masks indoors and in places where appropriate social distancing is not possible.
- The policy does permit faculty members to take action for non-compliance with mask use. Additionally, if students have concerns about faculty or staff mask use, contact Human Resources at hr@memphis.edu or 901.678.3573.
- Faculty who are delivering on-campus instruction may remove their face mask to teach, provided they are located within a delineated teaching area that is no less than 6 feet from students.

University’s COVID19 website: Coronavirus Updates - Coronavirus Updates - The University of Memphis

Student Resources

Additional resources can be found on the Dean of Students website at https://www.memphis.edu/deanofstudents/crisis/index.php

Instructor: Dr. James Yu
Email: jyu8@memphis.edu
Office: Dunn Hall 320
Office Hours: By appointment (email). I am generally available in the mornings (M – Th).

Course Team TA/GA: TBD

Textbook: No explicit required textbook. Lecture notes, and reading material from various sources will be specified throughout the course.
Meeting Times:

Lectures/ Project team meetings: (Hybrid)
  Tues, Thurs 2:40 pm to 4:05 pm. Dunn Hall 129.

Catalog Description:

Development of significant team project; continuation of COMP 4081; software project management; risk assessment. Software requirements and specifications; software design; software validation; professional and ethical responsibilities. PREREQUISITE: COMP 3115, 4030, and 4081, or permission of instructor.

List of highly recommended reference textbook resources:

- Agile Project Management, by Jim Highsmith
- Agile Estimation and Planning, by Mike Cohn.
- Design Patterns, Elements of Reusable Object-Oriented Software, Eric Gamma, Richard Helm, 
- Documenting Software Architectures: Views and Beyond, 3/E by Paul Clements.
- Refactoring, Improving the design of existing code, Martin Fowler
- Refactoring to Patterns, Joshua Kerievsky
- Software Architecture in Practice, 3/E by Len Bass
- The Pragmatic Programmer, by Andrew Hunt, David Thomas.
- Test-Driven Development by example, by Kent Beck.
- UML for Java Programmer, by Robert Martin.

Capstone Project Course Objectives:

By the end of the capstone project course, students will have demonstrated their proficiency in:

- work in a self-collaborative team organization environment,
- understand the principles and practices of Agile software development
- gather and prioritize user requirements with clients and team members
- decompose a complex problem, formulate, and provide a rapid prototype for feedbacks,
- explore and propose an alternative solution,
- present to an audience in various forms, oral, written, live demo, and formal presentations

Expectations:

Each student should spend on average 8-10 hrs/week through the semester. These hours include 85 minutes of lecture/team meeting (Tuesday, Thursday) time and 8 hrs outside of class time each week.
Most of the class time (80%) covers SCRUM, sprint planning discussions, requirement analysis, user stories brainstorming and mapping, architecture and design layout, sprint demo presentation, and interaction with the instructor. The rest of the class time (20%) will focus on the announcement, brief lecture, and discussion of the current sprint and results. It is not easy to have every team member altogether during the week. Plan your meeting time wisely with a proper (committed) schedule and goals by having an agenda (Team Lead/Scrum Master). **Attending all your classes and project team meetings is mandatory.** Every team member should have specific roles and responsibilities. Your team scrum master (or team lead) records the scrum meeting minutes with attendants. Every member delivers his/her part of the contributions according to the roles/responsibilities incrementally (per sprint release). The project contributions are graded based on each sprint release result.

Note that not attending the class or scheduled team meetings without a valid reason is unprofessional and reduce individual contribution grades. The same applies to tardiness.

**Evaluations (Total 100%)**

90% Sprint Releases (Live Demo, Presentation, Reports)
10% Participation (Peer-Peer Reviews)

<table>
<thead>
<tr>
<th>Project (Sprint) Release</th>
<th>Sprints</th>
<th>Date (2021)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP0: JIRA setup, GitHub (svc) Project selected, Team formation, problem statement-1</td>
<td>SP0: 5%</td>
<td>Sept 15 - 17</td>
</tr>
<tr>
<td>No demo1, sp0 release reports, SP1 plan</td>
<td>SP1: 15%</td>
<td></td>
</tr>
<tr>
<td>SP1: sprint plan (PBL), GitHub (SVC), JIRA ready</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem statement-2, Key Arch components, prototype, Live demo1, sp1 release reports, SP2 plan</td>
<td>SP1:demo</td>
<td>Oct 6 - 8</td>
</tr>
<tr>
<td>SP2: PBL, SBL update; ICR prep, test results</td>
<td>SP2: 30%</td>
<td></td>
</tr>
<tr>
<td>user stories and points, retro / client Live demo2, sp2 release reports, SP3 plan</td>
<td>SP2:demo</td>
<td>Oct 27 - 29</td>
</tr>
<tr>
<td>SP3: SBL, ICR, user stories/points, project results update, test results</td>
<td>SP3: 40%</td>
<td></td>
</tr>
<tr>
<td>Live demo3, sp3 release reports. SP4 demo prep.</td>
<td>SP3:demo</td>
<td>Nov 17 – 19</td>
</tr>
<tr>
<td>Sp4: Final Demo only (reports Option)</td>
<td>SP4: 10%</td>
<td></td>
</tr>
<tr>
<td>Live demo4 (Final Showcase)</td>
<td>SP4: demo</td>
<td>Nov 29 -Dec 3</td>
</tr>
<tr>
<td><strong>Total 100%</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Students must pass both sprints 3,4 (Final sprint demo + reports completeness), and the participation scores (> 50%) to pass the course. **Failure to achieve that will result in an 'F' grade.**
- Absent in sprint demo: not present in sprint demo will receive a zero mark without a valid medical note. The student(s) will have to do a makeup later if the course calendar is allowed and other team members are available.
**Grading scale.**

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>89</td>
<td>76</td>
<td>65</td>
<td>60</td>
<td>59</td>
</tr>
<tr>
<td>A+</td>
<td>97%</td>
<td>85–88%</td>
<td>71–75%</td>
<td>62–64%</td>
<td>≤ 59%</td>
</tr>
<tr>
<td>A</td>
<td>92–96%</td>
<td>80–84%</td>
<td>67–70%</td>
<td>60–62%</td>
<td></td>
</tr>
<tr>
<td>A–</td>
<td>89–91%</td>
<td>76–79%</td>
<td>65–67%</td>
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</tr>
</tbody>
</table>

There are four (SCRUM/Sprint) releases in live demonstration and sprint project reports (team + ICR). Each team member needs to include the participation score of their team members with their ICR report. Failure to do so will forfeit their participation marks from his/her team members.

The first and second releases focus on project selection, team formation, problem statement, prototyping, development environment preparations, and tutorials on frameworks and tools. The third and fourth releases focus on the project features sprint execution. The last sprint (fourth) focuses on the final wrap-up and project demo.

Each sprint project release deliverables consists of an Individual Contribution Report (ICR) (80%), and one team report (20%). Only one team report per team is required representing the overall project results from the entire team. This team report is built incrementally from each sprint and graded accordingly. 20% of the sprint mark comes from this team report grade weighted by your ICR result, as shown in the following example:

Team A has a score of 88% on a sprint team report:
Team A has five team members with ICR scores of (80, 75, 30, 90, 95) % (no demo scores)

The team report distributed among the five team members will be (%):

- (80/95 * 88) = 74
- (75/95 * 88) = 69
- (30/95 * 88) = 28
- (90/95 * 88) = 83
- (95/95 * 88) = 88

The sprint report score after the weighted team report results:

Student 1 = 80*0.8 + 74*0.2 = 79
Student 2 = 75*0.8 + 69*0.2 = 74
Student 3 = 30*0.8 + 28*0.2 = 30
Student 4 = 90*0.8 + 83*0.2 = 89
Student 5 = 95*0.8 + 88*0.2 = 94

The total score for a sprint = (demo*0.2 + report*0.8)*0.9 + participation*0.1

Students with missing individual sprint reports (ICR) will receive zero for that entire sprint (i.e. no team report or demo marks).

Every team member needs to contribute to building the team report. However, it does require an “author” to organize and integrate materials from all team members. To do a proper job, it does need time and effort. This author will receive an additional 5% of the team report mark as a bonus. The team report authorship should rotate among the team members. However, it is up to the team to decide among themselves. Every team member shall do a thorough final review to ensure their contributions are in the team report. Within each ICR, every team member needs to perform a peer-to-
peer evaluation of each other (individually) as shown in the following: (ICR without filling out the participation form will forfeit your partition score)

**Participation (10%)**: In a separate file with a template (excel spreadsheet), each team member needs to fill out the following table as a peer-to-peer evaluation (individually). Failure to do so will forfeit their participation marks from his/her team members

<table>
<thead>
<tr>
<th>Criteria (1 worst ... 5 best)</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Team members (First name) (not including yours)</td>
<td></td>
</tr>
<tr>
<td>2 Present: (0 or 1) if 0 (absent), all the rests are zero. (if present = 0, there is no need to grade the rest)</td>
<td></td>
</tr>
<tr>
<td>3 Present and engage in all team meeting discussions. (1 don't care -- to -- 5 fully engaged in discussions)</td>
<td></td>
</tr>
<tr>
<td>4 Contribute to sprint planning discussion and create backlog (PBL, SBL) items (1 no contribution -- to -- 5 creative and produce practical backlog items)</td>
<td></td>
</tr>
<tr>
<td>5 Consistent in pulling and committed to the SBL ownership. 1 no SBL ownership -- to -- 5 fully committed with timely delivery</td>
<td></td>
</tr>
<tr>
<td>6 Team communication: genuine updates during SCRUM 1 no updates, --- to -- 5 moving the team towards to meet the sprint goal.</td>
<td></td>
</tr>
<tr>
<td>7 Helpful to the team overcoming issues (in all Software Engineering activities) 1 not involved bystander -- to -- 5 the goto &quot;firefighter.&quot;</td>
<td></td>
</tr>
<tr>
<td>8 Consistently providing retrospective feedbacks for improvement 1 none or complaints— to-- 5 constructive actions for the next sprint</td>
<td></td>
</tr>
<tr>
<td>9 Respectful and recognizing the dignity of others. 1 very poor — to-- 5 very well manner</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL**

*Maxi = 36 points*

For item 1 (absent), if the team member is in and out of the meeting and absent > 25% of the time, his/her score is zero, all the rest of the participation entries are zero.

**Submission and late policy.** You need to submit project (team and ICR) reports on time into eLearn.memphis.edu. Late submissions are acceptable with the following penalty policy:

- 0 to 24 hours late: 20% penalty
- 24 to 48 hours late: 40% penalty
- more than 48 hours: no mark

**Exams:** There are no exams for this class. All appeals to the sprint result marks, except to that of the final project sprint demo/report, must be registered with the instructor before the scheduled last project sprint demo date.

**Important Dates and Deadlines for Fall 2021**

**Academic Integrity:**

Plagiarism or cheating behavior in any form is unethical and detrimental to proper education and will not be tolerated. All work submitted by a student project,
programming, reports is expected to be a student's own work. The plagiarism is incurred when any part of anybody else's work is passed as your own (no proper credit is listed to the sources in your own work) so the reader is led to believe it is therefore your own effort. Students are allowed and encouraged to discuss with each other and look up resources in the literature (including the internet) on their work, but appropriate references must be included for the materials consulted, and appropriate citations made when the material is taken verbatim. If plagiarism or cheating occurs, the student will receive a failing grade on the project results (live demo and reports) and (at the instructor’s discretion) a failing grade in the course. The course instructor may also decide to forward the incident to the Office of Student Conduct for further disciplinary action. For further information on U of M code of student conduct and academic discipline procedures, please refer to: http://www.memphis.edu/studentconduct/misconduct.htm.

Student with Disabilities

If you require disability-related accommodations to meet the course objectives, please contact the Coordinator of Disability Resources located in the Student Development and Advising area of the student services building. For more information about Disability Resources or academic Accommodation, please visit the website at: http://www.memphis.edu/drs/