Instructor Information

Instructor:  
Shawn Gieser

Office Number:  
Engineering Research Building (ERB) 644

Office Telephone Number:  
817-272-6738 (CSE Front Office)

Email Address:  
Canvas Inbox Only

Faculty Profile:  
https://mentis.uta.edu/explore/profile/shawn-gieser

Office Hours:  
TuTh 9:00 – 10:30amP

Course Information

Section Information:  
CSE 4316 – 005/006

Time and Place of Class Meetings:  
TuTh 11:00 – 12:20, F 10:30 – 12:20 – WH 221

Description of Course Content:  
The purpose of this class is to give you some "close to real world" experience in developing real products, the right way. You'll learn a lot about the development process and discover some interesting things about yourself along the way! This is the CSE capstone course, where you put it all together before you tackle your role in industry after leaving UTA. We will study and practice agile development methodologies while designing and implementing exciting hardware and software projects. You will work for two semesters in teams of 4-5 students. In the first course in the sequence, CSE 4316, you will identify your team, project, and individual roles and responsibilities within the agile development framework. The project will be continued and completed, through demonstration of a working prototype, by the same team in CSE 4317 the following semester.
**Student Learning Outcomes:**
At the conclusion of the course, comprising both CSE 4316 and CSE 4317, the student will have developed the necessary skills to work on a product design and development team by substantially completing a working prototype of a complete product. The skills required to do this include all of the technical skills that should have been assimilated thus far in the student's program of work, as well as soft skills that will be learned and/or honed during the project. The primary objective of this course is the final preparation of the student for entrance into the workplace with the ability to be productive almost immediately.

Additionally, the student will have met the following specific ABET (Accrediting Board for Engineering and Technology) Critical Assessment outcomes:

- “Ability to design a system, component, or process to meet desired needs”

This outcome will be evaluated based on your performance on the key deliverables for this course: system requirements document, architectural design specification, detailed design specification, system test plan, and your final product prototype.

- “Ability to function on multi-disciplinary teams”

This outcome will be evaluated using peer evaluations and instructor assessments at the end of each semester.

Other ABET outcomes that are very relevant to this class, although not specifically evaluated, are “Understanding of professional and ethical responsibility” and “Ability to communicate effectively”.

**Required Textbooks and Other Course Materials:**
Essential Scrum: A Practical Guide to the Most Popular Agile Process by Kenneth S. Rubin

Standard Engineering Notebook, (available at UTA bookstore and BookFactory.com)

**Descriptions of major assignments and examinations:**
This course requires both individual and team deliverables, as well a formal performance review / exit interview (in place of a final examination). Individual team deliverables include weekly status reports, regular entries in the engineering notebook, and other periodic assignments, while team deliverables include gate reviews and supporting project documentation. Assignment due dates and requirements will be announced in class and posted on the course website.

**Class Preparation:**
This class is interaction intensive, meaning that you are expected to participate in class discussion and contribute to the learning experience. Each student is responsible for carefully reviewing all specified lecture/discussion material before each class session and being prepared for class discussion. The majority of readings are from the course textbook. Additional reading may be assigned and class handouts may be distributed, typically via the website, to supplement text readings. Presentation materials to be used for discussion of each topic in class are provided on the class website. Students will receive a grade on their participation in classroom discussions as indicated below. Topics for classroom discussions each week are as indicated on the class website, and will be updated as necessary throughout the semester. Please note that the dates indicated for discussion of a topic are for planning purposes only – the actual discussion dates may vary depending on class learning pace and other factors. Students should come to class prepared to discuss the topic during the week indicated in the reading schedule, or on a later date if deferral is necessary. This is a common occurrence in the work force. Stay flexible!
Grading Information

Grading:
Final course grades will be computed as follows:

- Individual Deliverables 25%
- Team Deliverables 25%
- Final Exam 25%
- Attendance and Participation 25%

For more details on the scoring of individual deliverables and graded course components, please refer to the course website.

In addition to the percentage grade calculated as above, the following other requirements must be met to pass the course, regardless of the percentage grade earned:

1. Completion of the course in an ethical fashion. Attempting to cheat in any manner whatsoever, falsifying reports, etc. are all violations and will result in failure.

2. Satisfactory participation as a member of the team for the whole semester. Failure to participate satisfactorily will result in a failing grade. Satisfactory participation includes attendance at team meetings and completion of individual assignments in a timely manner.

3. Final grades for Senior Design II will be assigned only after a team has completed project wrap-up. Project wrap-up requires, at a minimum: producing a project user manual that describes any special instructions and other information that might be required to restart/resume/recover the project from where you leave it; archival of all source code, "make" files, detailed design documents and any other soft materials on a CD/DVD; and returning the team’s cubicle space and surrounding area in the lab to a clean and "unused" condition such that it can be immediately occupied by another team at the beginning of the next semester. Specific, detailed wrap-up instructions will be discussed in class.

Attendance:
The Senior Design curriculum places a heavy emphasis on developing professional skills and fostering effective teamwork. Success in these areas requires both attendance and punctuality, and thus, regular attendance in lectures and lab sessions is required and will be recorded. The attendance and participation component of the final grade will be computed as follows:

- 2 or less unexcused absences 100 points
- 3-4 unexcused absences 50 points
- more than 4 unexcused absences 0 points

Notes: Absence may be excused, with appropriate documentation, for illness, critical family emergencies, military service obligations, observance of major religious holidays, etc. Any request for an absence to be excused must be communicated to the instructor via email in advance or as soon as reasonably possible.

Institution Information

UTA students are encouraged to review the below institutional policies and informational sections and reach out to the specific office with any questions. To view this institutional information, please visit the Institutional Information page (http://www.uta.edu/provost/administrative-forms/course-syllabus/index.php) which includes the following policies among others:

- Drop Policy
- Disability Accommodations
- Title IX Policy
- Academic Integrity
Additional Information

Attendance:
At The University of Texas at Arlington, taking attendance is not required but attendance is a critical indicator of student success. Each faculty member is free to develop his or her own methods of evaluating students’ academic performance, which includes establishing course-specific policies on attendance. As the instructor of this section, I will use the policy stated in the above attendance section. However, while UT Arlington does not require instructors to take attendance in their courses, the U.S. Department of Education requires that the University have a mechanism in place to mark when Federal Student Aid recipients “begin attendance in a course.” UT Arlington instructors will report when students begin attendance in a course as part of the final grading process. Specifically, when assigning a student a grade of F, faculty report must the last date a student attended their class based on evidence such as a test, participation in a class project or presentation, or an engagement online via Canvas. This date is reported to the Department of Education for federal financial aid recipients.

Emergency Exit Procedures:
Should we experience an emergency event that requires evacuation of the building, students should exit the room and move toward the nearest exit. When exiting the building during an emergency, do not take an elevator but use the stairwells instead. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist individuals with disabilities.

Student Support Services:
UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring by appointment, drop-in tutoring, mentoring (time management, study skills, etc.), major-based learning centers, counseling, and federally funded programs. For individualized referrals, students may call the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at Resource Hotline (http://www.uta.edu/studentsuccess/success-programs/programs/resource-hotline.php).

Emergency Phone Numbers

In case of an on-campus emergency, call the UT Arlington Police Department at 817-272-3003 (non-campus phone), 2-3003 (campus phone). You may also dial 911. Non-emergency number 817-272-3381

Library Information

Research or General Library Help
Ask for Help
• Academic Plaza Consultation Services (library.uta.edu/academic-plaza)
• Ask Us (ask.uta.edu/)
• Research Coaches (http://libguides.uta.edu/researchcoach)
Resources
• Library Tutorials (library.uta.edu/how-to)
• Subject and Course Research Guides (libguides.uta.edu)
• Librarians by Subject (library.uta.edu/subject-librarians)
• A to Z List of Library Databases (libguides.uta.edu/az.php)
• Course Reserves (https://uta.summon.serialssolutions.com/#!/course_reserves)
• Study Room Reservations (openroom.uta.edu/)
Course Schedule

As the instructor for this course, I reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course.

<table>
<thead>
<tr>
<th>Week</th>
<th>Day</th>
<th>Topic</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Jun 04</td>
<td>Tuesday</td>
<td>Course Introduction</td>
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<tr>
<td>Jun 06</td>
<td>Thursday</td>
<td>Scrum: Process overview</td>
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<tr>
<td>Jun 07</td>
<td>Friday</td>
<td>LAB: Lab Introduction</td>
<td>Introductory essay assigned</td>
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<td>Jun 11</td>
<td>Tuesday</td>
<td>Scrum: Roles &amp; Responsibilities, backlog</td>
<td>Announce preliminary project list</td>
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<td>Jun 13</td>
<td>Thursday</td>
<td>Project charter overview</td>
<td>Introductory essay due</td>
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<td>Jun 14</td>
<td>Friday</td>
<td>LAB: SD I &amp; SD II sections meet</td>
<td>Team &amp; project assignments</td>
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<td>Jun 18</td>
<td>Tuesday</td>
<td>Sprint plan presentations</td>
<td>Beginning of Sprint 1</td>
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<td>Jun 20</td>
<td>Thursday</td>
<td>Engineering Notebooks</td>
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<td>Jun 21</td>
<td>Friday</td>
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<td>Jun 25</td>
<td>Tuesday</td>
<td>SRS overview</td>
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<td>Jun 27</td>
<td>Thursday</td>
<td>Technical enrichment</td>
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<td>Jun 28</td>
<td>Friday</td>
<td>LAB: Sprint work day</td>
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<td>Jul 02</td>
<td>Tuesday</td>
<td>Sprint review presentations</td>
<td>End of Sprint 1, Project Charter due</td>
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<tr>
<td>Jul 04</td>
<td>Thursday</td>
<td>Technical enrichment</td>
<td>Beginning of Sprint 2</td>
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<tr>
<td>Jul 05</td>
<td>Friday</td>
<td>LAB: Sprint plan presentations</td>
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<td>Jul 09</td>
<td>Tuesday</td>
<td>Technical enrichment</td>
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<td>Jul 11</td>
<td>Thursday</td>
<td>Technical enrichment</td>
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<tr>
<td>Jul 12</td>
<td>Friday</td>
<td>LAB: Sprint work day</td>
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<td>Jul 16</td>
<td>Tuesday</td>
<td>ADS exercise</td>
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<td>Jul 18</td>
<td>Thursday</td>
<td>Technical enrichment</td>
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<td>Jul 19</td>
<td>Friday</td>
<td>LAB: Sprint work day</td>
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<tr>
<td>Jul 23</td>
<td>Tuesday</td>
<td>Sprint review presentations</td>
<td>End of Sprint 2, SRS due</td>
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<td>Jul 25</td>
<td>Thursday</td>
<td>Technical enrichment</td>
<td>Beginning of Sprint 3</td>
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<tr>
<td>Jul 26</td>
<td>Friday</td>
<td>LAB: Sprint plan presentations</td>
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<td>Jul 30</td>
<td>Tuesday</td>
<td>Technical enrichment</td>
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<td>Aug 01</td>
<td>Thursday</td>
<td>Technical enrichment</td>
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<tr>
<td>Aug 02</td>
<td>Friday</td>
<td>LAB: Sprint work day</td>
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<td>Aug 06</td>
<td>Tuesday</td>
<td>Technical enrichment</td>
<td>End of Sprint 3, ADS due</td>
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<td>Aug 08</td>
<td>Thursday</td>
<td>Sprint review presentations</td>
<td>Project demos and poster session in lab</td>
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<tr>
<td>Aug 09</td>
<td>Friday</td>
<td>SD II FINAL DEMONSTRATIONS</td>
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Important Dates:
First day of Class – June 3rd
Census Date – June 20th
Drop Date – July 18th
Last Day of Classes – Aug 8th
Finals – Aug 12th – Aug 13th