**Software Engineering Laboratory**

**Advisor:** Johnson Hou

**Instructor:** Kevin Li

**Class Time:**  TBD

**Office Hours:** Wednesday and Friday

9:30 to 11:30 PM CST (Zoom Meeting)

**Course Description:**

Most computer science courses emphasize certain concepts, and some use programming assignments and projects to reinforce and apply the conceptual learning; the focus is the concepts. This course assumes familiarity with a breadth of computer science concepts and emphasizes the *application* of those concepts. It is primarily about *building software* that will be used by others. Although there is some conceptual content, most of it is in direct service to the process of building software. CS majors intending to pursue a career in software engineering are encouraged to take this course.

**Student Learning Outcomes:**

At the end of the course, each student will have experienced different aspects of a software development project, including:

* working with a client to define goals and priorities
* designing a system
* scheduling and planning a multi-person project
* writing technical documentation
* writing and testing code
* deploying the system

**Description of Course Activities and Assignments**

Along the way, we’ll meet weekly with each other. In these meetings, instructor should provide feedback intended to avoid problems and help with any problems that have surfaced or are anticipated. This weekly cadence is also important to counter the natural tendency to procrastinate on the project, which is an unrewarding experience for students and clients. Note: if you have problems with the assignment, you should contact Kevin and Johnson.

**Summary Description of Course Project**

**TBD**

**Assignments**

In the course of developing a project, the team should deliver:

* a project management board
* a clickable prototype (i.e. a linked set of prospective screen images)
* an architecture diagram
* a “walking skeleton”; that is, a bare-bones deployment demonstrating end-to-end functionality
* a test coverage report
* a developer-oriented README
* a client-oriented project overview

**Course Policies:**

**Excused Absences:**

Students need to notify the instructor of absences prior to class when possible. Students are expected to withdraw from the class if more than 30% of the classes scheduled for the program are missed.

**Tentative Course Topics:**

* project management
* evaluating technologies
* Figma workshop
* layout
* client/server architecture
* git
* testing
* agility
* pair programming
* authentication