



Course #: CIS 9995 (CRN: TBA)

Course: Capstone Project

Capstone Project (Term: 2023 Summer 1)

Applying Everything You Learn

The goal in a Capstone Project Course is to allow students to apply the knowledge they have accumulated throughout the program to build a realistic system or application from the beginning to the end. This may involve researching domain knowledge and latest relevant technology, writing design documents, implementation of the specification and a paper summarizing the results. The actual topic will be determined between the instructor and the students at the very beginning of the course.

The format of the course will not be the typical lecture plus exam format found in traditional lower-level courses. Instead, it will be more like an iteration of completing tasks, meeting milestones, brainstorming sessions when running into roadblocks and meetings for regular demonstration of progress.

Course Information	
Instructor: Dr. Alex Pang (alex.pang@temple.edu)	Term: 2023 Summer 1 (5/29/2023 – 8/2/2023)
Teaching Assistant: None	Credit Hours: 3
Lecture and Office Hours: on-demand and TBD	Level: Masters

Textbooks

There is no required textbook. Relevant resources will be provided on the Canvas website.

Prerequisite

Good standing in the Master Computer Science Program and the student has completed all prerequisite courses for CIS 9995.

Weekly Meeting

There will be a minimum of two meetings each week. Each meeting will last 1.5 hours. For the summer session that runs in a shorter timeframe, the meeting time may be adjusted accordingly. The meeting can be in person

or online via Zoom.

Exams

There will be no exams nor tests. But there will be a pass or unsatisfactory status report on the students in the middle of the semester.

Deliverable

A summary report of the project and an implementation of the system or application with source code available on github accessible by the instructor.

Grading

The grading will be based on

- Quality of the work produced by the students throughout the course.
- The final deliverable (code) and paper.
- Commitment of the time and effort shown by the students throughout the course

Proposed Project for Summer 2023 Section

Title: Applying technology for enhancing the teaching and learning process

Overview:

We feel there is still a lot of room for improvement in using technology in education. Some sample questions are on how to fully utilize our current Learning Management System beyond the basic usage; Can we make better use of the Canvas API for customizing learning paths for individual students; Can we integrate the latest technology in natural language dialogue toolbox such as chatGPT as part of our teaching and learning process; Can we standardize and quantify the assessment process of how the students really have learned the materials.

Goal:

We want to research some of these questions and be able to propose and implement some solutions to some of the questions posted.

Plan:

The instructor will provide resources on the first week of the course on Canvas and lay out a roadmap of some of the possible paths the students may take.

After the first 2 weeks of initial investigation and discussion, students will commit to a concrete plan with detailed tasks and milestones. The instructor will sign off. After that, students are expected to fulfill what is expected without any major change of goals without the instructor written approval.

Relevant links

[Canvas LMS REST API Documentation \(instructure.com\)](https://canvaslms.com/docs/api/)

[MongoDB: The Developer Data Platform](#) | [MongoDB](#)

chatGPT API: [Models - OpenAI API](#)

Academic Integrity

Discussions among students are encouraged, but all assignments and projects are to be done independently. There is no collaboration or group projects in this course.

Accommodations for students with disabilities

Any student who has a need for physical access or academic accommodations based on the impact of a documented disability or medical condition should contact [Disability Resources and Services](#) (DRS) in 100 Ritter Annex (drs@temple.edu; 215-204-1280) to request accommodations and learn more about the resources available to you. Students should also contact the Law School Office of Student Affairs (Suite 103, Barrack Hall, (215) 204-8574) for implementation of those assigned accommodations. All discussions related to accommodation will be confidential.

Fostering a safe and equitable learning environment

It is important that students are able to learn and work together in a safe and inclusive environment. However, there are a variety of systemic factors that can get in the way. If believe that you are experiencing discrimination in the classroom, please reach out to me by email. Similarly, if there are ways that I can make the course more accessible and inclusive, please don't hesitate to share your suggestions. All interactions will be confidential unless they involve self-harm or the harm of others. Here are some helpful resources:

- [Sexual Misconduct resources at Temple](#)
- [Anti-racism resources at Temple](#)
- [How to be an Ally](#)

Mental health

We are living in unprecedented times, and it is important to protect your mental health. If you are experiencing significant anxiety, changes in your mood, or problems eating or sleeping---please do not hesitate to reach out to the professor. Mental health challenges are often not visible to others, so please be proactive about seeking help. Here are a few free and confidential resources available to you:

- [Student Counseling Center](#): 1700 North Broad Street (2nd floor) Telephone: (215) 204-7276
- [Temple Wellness Center](#)

