# Course Information

**Course Number:** IS601

**Course Title:** Web Systems Development

**Section:** 002

**Semester:** Spring 2022

**Date & Time:** TR 2:30pm -3:50pm

**Location:** FMH 409

**Credit Hours:** 3

# Instructor Information

**Name:** Keith Williams

**Office:** GITC 3rd floor (Office Hours in PC Mall Lab)

**Email**: [kwilliam@njit.edu](mailto:kwilliam@njit.edu) (USE SLACK)

**Office Hours:** T & R – 11:30AM – 12:50PM

# Course Description

Students will gain experience in web development through an intensive hands-on project, applying real-world problem-solving skills to meeting information systems requirements. Students will learn Web development principles, as well as professionally relevant skills including industry standards, conventions, and procedures within large-scale programming projects. Also covered are the communication tools, technologies, and practices that individuals use to coordinate and collaborate within the open-source software development community.

**Prerequisites:** None

# Course Materials

* Online and Instructor Created
* You may have to purchase a license or provide a credit card to validate your identity for using cloud services such as Amazon Web Services or Microsoft Azure Cloud. All efforts are made to keep the cost of the course materials to a minimum

# Course Technologies

* HTML, CSS, and JavaScript
* Python
* Python MVC with Flask
* SQL and Python ORM
* Docker Containerization
* Amazon Web Services
* GIT

# Course Concepts

* Model View Control Architecture
* DevOps
* Cloud Services
* Server-Side Programming
* Introduction to Structured Query Language
* Object Relational Mapping Pattern
* Unit Testing
* Software Version Control with GIT
* Collaboration

# Course Format

* Content consists of a unit introduction, a hands-on exercise, and readings

# Class Communication

We will be using Canvas, for the posting of projects, class resources and other class announcements. Students having questions on projects, etc., **may contact Professor Williams directly using Slack,** if the answer would benefit the class, post the question in the class channel in Slack. Students are obligated to log and participate regularly in Slack. **DO NOT use the Canvas Message feature. It does not give your name or class section. I cannot respond to these messages.** Contact me using Slack only, since I want to respond to you as soon as possible and not have your messages accidently lost in email.

# Instructional Philosophy

The #1 thing that I am trying to teach you is technical problem solving and helping you to develop some confidence in your abilities.

* Isolate the problem
* Read the error message
* Google the part of the error message that is not specific to your machine. For example, remove any directory path on your computer from your search
* Do not give up
* If you ask a question, post a screen shot – do not say “I have a problem” and not include information about the problem and do not post code in Slack, link to it on GitHub
* It is not the computer, it is not me, it’s you (most of the time). Sometimes people’s computers are broken.

# You are Learning Hard Things

* You must respect that you are learning difficult material and that many people have succeeded, you will too.
* If I give you a certain amount of time for something such as 2 weeks for a project, this means it really will take you two weeks.
* Projects can take 40 hours of work to complete depending on your previous technical experience
* You are learning the top industry skills in software development and devops. These skills are in high demand and result in excellent salaries if you can manage to learn them.
* I am preparing you to obtain jobs that pay more than $100,000 dollars and this means that the job is hard and so is learning how to do it.

# Sometimes I make Mistakes

I am human and I make mistakes sometime. My goal is to provide you with the best learning experience possible, but I do not make it an easy process because you need to bring your skills up to a standard that will result in at least an entry level position in this field. Technologies change all the time and things are constantly being updated, what worked yesterday may not work today and you must become accustomed to this.

# Course Grades

* Project 1 – 5%
* Project 2 – 10%
* Project 3 – 20%
* Project 4 – 40%
* Homework – 25%
* Extra Credit for Team Collaboration Report – 0-3% of the final Grade

# Grading Scale

|  |  |  |
| --- | --- | --- |
| **Grades** | **Significance** | **Approximate Point Total** |
| **A** | Superior | 94-100 |
| **B+** | Excellent | 87-93 |
| **B** | Very Good | 80-86 |
| **C+** | Good | 74-79 |
| **C** | Acceptable | 70-73 |
| **F** | Inadequate | Below 69 |

# Grading Policy

Do not ask me about an increase in your grade. I am not difficult with grades, and I already give you some consideration in how I grade because my main goal is for you to learn these technologies and I understand that not everyone has the same previous experience with technology. If you are receiving bad grades, you have not done your work and are not serious or possibly qualified to do this type of work.

# Homework vs. Project Grading

* Homework is graded on a complete / incomplete basis.
* Projects are graded in detail and feedback will be provided. Generally, projects consist of previous content from homework and additional content. Each project is worth 100 points. You will receive at least 50 percent for making a substantive effort and the additional 50 percent is determined by how well the project works, looks, and is coded.

# Late Policy

* Homework assignments that are late by more than 2 days are not accepted under any circumstances except with a medical excuse from a doctor or other verifiable proof such as military services
* Projects that are late by more than 4 days are penalized 10% per day and are not accepted after 4 days under any circumstances except with a medical excuse from a doctor or other verifiable proof.
* Do not ask me to turn something in late. You have adequate time to complete your work and the consequences for not doing so are manageable if you do not make a habit of it.

# Incomplete Policy

Incompletes are not given under any circumstance other than a doctor’s note for serious medical issues or military service

# Team Collaboration

We are all in this together and your classmates are your team.

* Helping another student with a problem
* Contributing code through a commit in a project.
* Having a meeting with another student about a project

# Team Collaboration Report Example

You must turn in a collaboration report by the end of the semester. This report is extra credit and can add 3% to your final grade and is also used to investigate any issues of academic integrity. Please see the section on academic integrity for more information.

|  |  |  |  |
| --- | --- | --- | --- |
| **Date / Time** | **Activity** | **Name of Person you Assisted** | **Documentation** |
| May 24, 2021 | Answered Question on Slack about how to join Slack | John Smith | Photo or a Screenshot showing the time and the person you helped |

# Academic Integrity

My expectation is that each person will complete original work for this course and will not copy from fellow students or tutorials online. It is OK to refer to tutorials online; however, you will be considered in violation of the NJIT honor code by submitting work found online. Any violations of the honor code will be referred to the Dean of Students for investigation and possible disciplinary action.

Every assignment/project is a 'home-mini-exam.' The NJIT Honor Code will be strictly upheld. Students found cheating/collaborating/plagiarizing will be immediately referred to the Dean of Students and the NJIT Committee on Professional Conduct and subject to possible Disciplinary Probation, a permanent marking on the record, possible dismissal and a grade of 'F' in the course. All submitted assignments are carefully checked for similarities, and plagiarism and guilty students will be identified and referred to the Dean of Students for disciplinary action.

## Course Specific Academic Integrity Instructions

* **Every commit from another student on your project must be documented in the collaboration report.**
* **The collaboration report will be the evidence that the collaboration is authorized by both students and is of an authentic nature i.e., you're not stealing someone's work or doing all the work for someone.**
* **You must make clear commit messages and show a history of working on a project. Projects and homework with commits on a readme file or a series of commits that do not show a history of work on the project will be given a 0 on the first occurrence and you will fail the course automatically for any further violations of this policy**