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IS 601-102: Web Systems Development

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IS 601-102 Syllabus

Instructor:

Matt Toegel (matthew.toegel@njit.edu)

Office Hours: Please visit <https://web.njit.edu/~mt85/> or Canvas for current times

(By Appointment)

Office: GITC 3420->3420G

Academic Integrity:

The work done is expected to be your own, any group work should clearly distinguish ownership of tasks. Use of snippets/material from others should be kept to a minimum and the source should be accredited where applicable.

That being said, please also note the below:

Academic Integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating is strictly prohibited and devalues the degree that you are working on. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy that is found at:

<http://www5.njit.edu/policies/sites/policies/files/academic-integrity-code.pdf>.

Please note that it is my professional obligation and responsibility to report any academic misconduct to the Dean of Students Office. **Any student found in violation of the code by cheating, plagiarizing or using any online software inappropriately will result in disciplinary action. This may include a failing grade of F, and/or suspension or dismissal from the university.** If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at dos@njit.edu. Any violations of the NJIT Honor Code will be brought to the attention of the Dean of Students.

Overview:

Students will learn to develop a web based system through an intensive hands-on project that requires students to apply real-world problem-solving skills to meet the challenge of developing a web based information system. Students will learn the basic principles of web based applications, MVC application design, how to apply object oriented design patterns, design a relational database, and write SQL queries to create, retrieve, update, and delete information in a database.

Assignments:

Generally there will be small coding samples to go over in class where there will be lab/class time to practice. The course will consist of a few mini-projects and a final project that'll have a few milestones due at different points in the semester. The milestones will check on progress and see if any special topics need focus.

Illustrative Schedule

The schedule is a guideline and is subject to change to fit the particular instance of the class. All topics in general are planned to be covered. Some may have more focus than others and per class interest other topics may be included.

Week 1: Overview of class/materials/GIT and environment setup/prep

Week 2: GIT / Further Environment Setup / Basic Command line

Week 3: Docker/Python

Week 4: Mini Project 1 - GIT

Week 5: Python/Flask Intro

Week 6: Mini Project 2 - Calculations

Week 7: Flask / SQL

Week 8: Mini Project 3 / SQLAlchemy

Week 9: Flask Templates / Final Project Assigned

Week 10: Flask Packages

Week 11: User Management

Week 12: Project Milestone / Project Workshop

Week 13: Project Milestone / Project Workshop

Week 14: Final Project Wrap up

Week 15: Final Project/Exam

Grading:

Mini Projects: 60%

Homework: 5%

Milestones: 10%

Final Project: 20%

Participation/Attendance: 5%

Grading Scale:

A 100 % to 89.5%

B+ < 89.5 % to 84.5%

B < 84.5 % to 79.5%

C+ < 79.5 % to 74.5%

C < 74.5 % to 69.5%

D+ < 69.5 % to 64.5%

D < 64.5 % to 59.5%

F < 59.5 % to 0.0%

Materials/Technology:

Virtualbox (Ubuntu Server 18.04)

Online Resources (No book required)

GitHub

Laptop capable of running Virtualbox

Late Policy:

General Assignments will have 1% deducted for each day late.

Projects/larger assignments will have 5% deducted for each day late.

Missed Exams/Quizzes will result in a 0.

If you are going to miss a class and cannot hand in an assignment, it's your responsibility to let me know.

There also will be no make-up exams (except, at the discretion of the instructor in the case of a documented medical or family emergency).

Syllabus is subject to change, attend class to stay current.