IS 601 Web Systems Development

Section/CRN 007-93759

Location/Days

- FMH 306 / Mon-Thurs 4 – 5:20

Professor

- Thomas Licciardello
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- Office hours by appointment, please email for coordination (virtually gives more options)
- Email is the preferred contact method, please allow 24-48 hours for response, or emergencies, please mark email as such with importance.

Resources

- No Book, we'll use websites, tutorial pages, and templates will be given for content and exercises
- Training module: Udemy Django Frameworks course highly recommended and used during the course: we will go over in class. https://www.udemy.com/course/python-django-the-practical-guide/

Course Summary & Objectives

(Pre-Requisite- no)

Students will gain experience in the development of web-based systems using a web framework. Python and the Django web framework are an example. Students will work with, in-demand programming languages such as Python and JavaScript. Students will learn to develop a web-based system through an intensive, hands-on project that requires application of real-world problem-solving skills. Students will learn to utilize the Django web framework, one of the ten most popular web frameworks and currently in use by Instagram and Pinterest. Model-View-Template design, the Django templating language, and object relational mapping for database access will be covered in this course. At the conclusion of the course, students should be able to create a bespoke web interface for a standard internal business application.

You will learn/do: the evolutions of the web, the beginnings of HTML/CSS, also python basics and as it pertains to web frameworks, command line activities, package installs, Django framework install, virtual environments, API's, forms, database connections, MVC architecture, authentication/authorization. You will perform research on web frameworks, do hands on activities with HTML/CSS, Python, Django administration. You will also use tools such as Git for

version and source code control, learn the basics of project management, business analysis, secure coding practices and manage a term project beginning to end.

Grading

- Participation / Attendance = 10%
- Midterm = 25%
- Final = 25%
- Individual Exercises 15%
- Group Team(term) Projects 25%

Policies

Academic Integrity

Students are expected to follow the University Policy on Academic Integrity. Any code used from an online resource should be cited in a comment. Any attempts to present other people's code as your own will be viewed as plagiarism. All violations of the Academic Integrity policy will be referred to the Dean of Students for review and possible disciplinary action.

Canvas

Students should monitor and use canvas for pertinent class information, announcements, weekly module contents, assignments etc...

Late Assignment Policy

Assignments that are turned in late (after the due date/time) will be subject to penalty as follows 5% after due date, and subject to further % penalty for days/weeks late…. If you are having issues or need additional time due to extreme circumstance, please let me know so we can coordinate.

Requesting Accommodations

If you are in need of accommodations due to a disability please contact the Office of Accessibility Resources & Services (OARS), Fenster Hall Room 260 to discuss your specific needs. A Letter of Accommodation Eligibility from the OARS authorizing your accommodation will be required.

Resources for NJIT Students

NJIT Service for Students, including Technical Support.

Class Etiquette

Students who are the most successful attend and participate in class. If you have questions, please ask them. This makes the class more dynamic and interesting for everyone.

Proctoring/Exams

NJIT policy requires that all midterm and final exams must be proctored, regardless of delivery mode, in order to increase academic integrity. Note that this does not apply to essays or authentic based assessments. Effective beginning Fall semester 2019, students registered for a fully online course section (e.g., online or Hyflex mode) must be given the option to take their exam in a completely online format, with appropriate proctoring.

Exams will be given in-person using Respondus. Be sure to bring your charged laptop and charger on the day of exams.

Outline – this is subject to change, and meant just as a guide, please use Canvas weekly modules section for actual week by week activities.

Week	Topics
1	● Course Introduction ● Class Introductions – What's your experience with web frameworks ● Exercise – introductions in discussions
2	● **TBD for book info:** ● Presentation - Tools Used in Modern Web Development ● Exercise - Setting up the Development Environment ● Term Project Introduction
3	● Presentation - Working from the Command Prompt ● Exercise - Navigation Practice/Basic git workflow ● Presentation - Getting Started with Python ● Exercise - Writing a Python Program
4	● Presentation - How does a Web App Work and What Does Django Do? ● Exercise - Creating a Django Project, App, and View
5	● Presentation - Databases and Web Apps ● Exercise - Creating Models, Performing Migrations, and Using the Admin Interface
6	● Presentation - Views, Templates, and Object Relational Mapping ● Exercise - Creating a View That Loads a Template with Information from the Database
7	● Presentation - Querying
8	● Midterm Exam

9	● Presentation - Django Applications ● Exercise - Using Django import / export
10	● Presentation - Sessions ● Exercise - Using Sessions in Django
11	● Presentation - Routing and Forms ● Exercise - Using ModelForms
12	● Presentation - CSS Frameworks ● Exercise - Static Files and Bootstrap
13	● Term Project Presentations
14	● Exercise - Final Review
15	● Final Exam