

Course Number: IS601
Course Title: Web System Development
Section: 102
Semester: Spring 2018
Date & Time: M 6-9
Location: Online
Credits: 3
Contact Hours: 3 Hours Face-to-Face

Instructor Information:

Name: Keith Williams
Office: 5114 GITC
Email: kwilliam@njit.edu
Slack: Best to contact me

Office Hours:

Wed, 2:30 PM-3:30 PM.
Tues & Thurs 1:30 PM – 3:30 PM
Available through slack or in person by appointment

Course Materials

Murach, Joel, and Associates. *Murach's PHP and MySQL 2nd Edition*. Fresno, Calif.: Mike Murach & Associates, 2014. Print. ISBN: 978-1890774790

Catalog Description

Students will gain experience in the development of Web based systems using an object oriented programming language and SQL. 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.

Prerequisites: NONE

Learning Outcomes

1. Students will be able to create an application using PHP and MySQL.
2. Students will be able to design and implement a user registration and management process for a web application.
3. Students will be able to demonstrate fundamental concepts in web application development such as Model View Control (MVC).
4. Students will be able to demonstrate the ability to collaborate using source code management software.
5. Students will be able to describe and implement basic design OOP patterns such as a singleton, MVC, Active Record and factory pattern.
6. Students will be able to use SQL create, retrieve, update, and delete (CRUD) queries

Grading Category Weights

Mini Projects: 40%
Quizzes: 10%
Exams: 20%
Final Project: 30%

Grading Scale

A: 90 - 100 **C:** 70 - 77
B+: 88-89 **F:** 0 - 59
B: 80 - 87
C+: 78-79

Incompletes are only given for extenuating and documented medical or personal issues.

Late Grading policy

- A. No free late days for projects and homework. 20% off from full credits per day late. (e.g. if you were late for one day, the instructor would start grading your work at 80%).

- B. Quizzes will be graded to 0 automatically if you do not finish them on time.
- C. You will receive 0 for any missed exams. If you know you will not be in the day of exams, please inform the instructor at least a week beforehand to make alternative arrangements. There will be no make-up exams.

Attendance

Attendance will be taken for each class meeting. Attendance is worth 10% of your final grade. Students who miss 5 or more than 5 will receive a 'F'.

Academic Integrity Policy

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. For more information about the NJIT honor code, you should refer to this document:

<http://www.njit.edu/academics/pdf/academic-integrity-code.pdf>

TENTATIVE CLASS SCHEDULE – Subject to Change
Below are the TOPICS covered in the course.

Week Meetings	Topics	Assignments
1	Introduction of tools we use in this course: <ul style="list-style-type: none"> • Install Virtualbox and PHPStorm; • Introduction to Heroku; • A brief to Git and GitHub. 	<i>Git commands, basic AFS commands and Sublime practice</i>
2	<ul style="list-style-type: none"> • HTML Forms and Bootstrap 	<i>Mini Project 1</i>
3	Introduction to PHP basic: <ul style="list-style-type: none"> • Basic syntax; • Variable types; • Constant types. 	<i>Quizzes</i>
4	OOP PHP - Functions and Class: <ul style="list-style-type: none"> • How to define a functions; • Functions arguments and returning values; • How to define a class; • Member visibility; • OOP Concepts 	<i>Quizzes Mini Project 2</i>
5	Introduction to PHP Flow Control: <ul style="list-style-type: none"> • Comparison & Logical operators; • Conditional expressions; • Control statements. 	<i>Exam #1</i>
6	Project Workshop	
7	Basic intro to MySQL: <ul style="list-style-type: none"> • PHP Storm and MySQL; • SQL statements 	<i>Mini Project 3</i>
8	Basic intro to MySQL: <ul style="list-style-type: none"> • More SQL statements 	
9	Basic intro to MySQL: <ul style="list-style-type: none"> • PHP Storm and MySQL; 	
10	PHP MVC 1	<i>Mini Project 5</i>

11	PHP Active Record	<i>Mini Project 6</i>
12	Project Workshop	
13	Project Workshop	
14	Project Workshop	
15	Project Workshop	<i>Final Project and Exam 2</i>