**Course Syllabus**

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**MISY350 (Web Application Development) Syllabus**

Fall 2017

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TA Office Hours: 2pm to 4pm Wednesdays (location TBD)

**Course Description:**

This course will focus on current technologies and tools that are used to develop web applications in a business environment. A wide range of client-side and server-side technologies, such as HTML, CSS, JavaScript, Python, and Flask, will be covered. Tools and systems for development, testing, and deployment, such as Atom, Github, TravisCI, and AWS, will be introduced. This course prepares students for full-stack web development, which is one of the most popular developer occupations today[[1]](https://udel.instructure.com/courses/1375909/assignments/syllabus" \l "_ftn1).

This course adopts the flip-classroom teaching pedagogy in which the typical lecture and homework elements of a course are reversed. Many video sources or lectures are viewed by students online before the class sessions. In-class time is often devoted to key complex concepts, exercises, homework, projects, or discussions.

**Prerequisite:**

MISY225: Advanced Business Computing and Applications

Ideally, MISY330 (Database Design & Implementation) should also be taken before MISY350.

**Course Resources:**

**Required Textbook**: Flask Web Development: Developing Web Applications with Python by Miguel Grinberg, 1st Edition

**Hardware**: A laptop is required for each lecture/lab. Mac laptops are preferred although Windows laptops can also be used.

**Software/Systems**: Detailed instructions on how to access and configure the software/systems will be given during class early in the semester.

* Atom: [https://atom.io (Links to an external site.)Links to an external site.](https://atom.io)
* Github: [https://github.com (Links to an external site.)Links to an external site.](https://github.com)
* TravisCI: [https://travis-ci.org/ (Links to an external site.)Links to an external site.](https://travis-ci.org/)
* Amazon Web Services (AWS: [https://aws.amazon.com (Links to an external site.)Links to an external site.](https://aws.amazon.com))

**Class lectures and online learning resources:** Distributed by the instructor on Canvas

**Course Requirements and Policies:**

|  |  |  |
| --- | --- | --- |
| Requirements\* | **Ind./Group Assessment** | **Weight** |
| Assignments | Individual/Group | 40% |
| Quizzes | Individual | 30% |
| Final Project | Group | 20% |
| Class Participation and Attendance | Individual | 10% |
|  | Total | 100% |

\* If a category is not assigned, I will change the weights of the other assignments on a prorated basis.

**Assignments**: Assignments are either individual or group, which can be in-class assignments (labs) or out-of-class assignments. Some assignments are in the format of small group projects. Detailed assignment instructions will be given during the semester. I accept late assignments up to *one calendar day late*.  Assignments submitted after the deadline but less than one day late will get a late penalty of 20%.  Assignments that are more than one day late will NOT be accepted and a *zero* will be assigned for that assignment grade. If an assignment requires your presence in class or is offered on a credit/no credit basis, then no late assignments are accepted.

**Quizzes**: In-class quizzes will be given to test the knowledge and skills gained from the reading materials. The lowest 2 quiz grades will be dropped. You can only take the quiz when the quiz takes place in class. No early, late or make-up quiz will be given. If you miss a quiz for any reason except serious and/or debilitating illness/injury, you will receive a ZERO grade for that quiz.

**Project**: Each student team should have 2 or 3 (preferred) members. Each team will develop and deploy a web application. Detailed project requirements will be given in a separate document later in the semester.

**Class Participation and Attendance**: You are expected to attend all classes. Participation in class discussions and exercises is encouraged and highly recommended. This course will require a significant amount of your time. Good attendance can help reduce the amount of your study time after class. The instructor believes that the class efficiency (from both sides) and students’ learning experience are highly correlated to the class attendance.

**Grading**: Percentages are rounded to the nearest 1/100th percent and your final grade will be assigned using the following grading scale.

|  |  |  |  |
| --- | --- | --- | --- |
| A | > 93.00 | C | 73.00 – 76.99 |
| A- | 90.00 -92.99 | C- | 70.00 – 72.99 |
| B+ | 87.00 – 89.99 | D+ | 67.00 – 69.99 |
| B | 83.00 – 86.99 | D | 63.00 – 66.99 |
| B- | 80.00 – 82.99 | D- | 60.00 – 62.99 |
| C+ | 77.00 – 79.99 | F | < 60.00 |

Grade appeal is *one week from the day when the grade is assigned*. Please contact the instructor if you have any questions about the grading within one week, otherwise your right to appeal will be waived.

**Academic Integrity:**

I assume that you have complete integrity in all your class efforts. Violations of the University's Code of Academic Integrity will be taken extremely seriously, and they will be addressed promptly according to the established University of Delaware procedures. A Quick Reference Guide to Academic Integrity can be found at: [http://www.udel.edu/judicialaffairs/ai.html (Links to an external site.)Links to an external site.](http://www.udel.edu/judicialaffairs/ai.html).

**Tentative Class Schedule:**

|  |  |
| --- | --- |
| **Date** | **Topic** |
| 8/29 | Course introduction |
| 8/31 | Web Application Basics and Architecture |
| 9/5 | Source Code Management and Collaboration (Git and Github) |
| 9/7 | HTML I and Git Exercises |
| 9/12 | HTML 2 and AWS Static Hosting |
| 9/14 | CSS I |
| 9/19 | CSS II |
| 9/21 | JavaScript I |
| 9/26 | JavaScript II |
| 9/28 | jQuery and Bootstrap |
| 10/3 | Python I |
| 10/5 | Python II |
| 10/10 | Python III |
| 10/12 | Flask Introduction |
| 10/17 | Flask Templates |
| 10/19 | Web Forms |
| 10/24 | No Class (INFORMS Meeting) – Class time used as additional TA office hours |
| 10/26 | Relational Database and ORM |
| 10/31 | Relational Database and ORM Exercise |
| 11/2 | Email and Large Application Structure |
| 11/7 | Testing |
| 11/9 | Testing Exercises and Integration Testing via TravisCI |
| 11/14 | User Authentication |
| 11/16 | Advanced Database |
| 11/21 | Thanksgiving break |
| 11/23 | Thanksgiving break |
| 11/28 | System Deployment |
| 11/30 | Testing and Deployment Lab |
| 12/5 | Final Project Development |
| 12/7 | Final Project Presentation |

[[1]](https://udel.instructure.com/courses/1375909/assignments/syllabus" \l "_ftnref1) [https://insights.stackoverflow.com/survey/2016 (Links to an external site.)](https://insights.stackoverflow.com/survey/2016)