

Fall 2019

IS 117-101: Introduction to Website Development

Keith Williams

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|--|---|
| Course Title: Introduction to Website Development | Credits: 3 Contact Hours: 3 Face-to-Face |
| Course Number: IS117 101 | Instructor: Keith Williams |
| Class Session: PC Mall 37 Monday, 6:00 PM – 8:50 PM | Prerequisites/Required Background: None |
| Course Website: canvas.njit.edu | |
| Catalog Information: http://catalog.njit.edu/undergraduate/computing-sciences/information-systems/#coursestext | |
| Faculty Information | |
| Keith Williams | Office: GITC 5114 |
| Office Hours: Monday: 5PM-5:50PM (By Appoint Only) Thursday: 5PM-5:50PM (By Appoint Only) Friday: 5PM-5:50PM (By Appoint Only) | Telephone: Please Use Slack 973-596-5842 |
| Preferred Online: Slack https://app.slack.com/client/T28EF5C02/CMSTUGSU9 | |
| Email: kwilliam@njit.edu Include Course in Subject: IS117-005 | Notes and Articles: in Canvas |

Course Materials

Murach HTML5/CSS3 4th edition
by Anne Boehm and Zak Ruvalcaba
Publisher: Mike Murach and Associates, Inc., 2018
ISBN: 978-1-943872-26-8

Where Wizards Stay up Late: The Origins of the Internet
By Hafner, Katie and Lyon, Matthew
Publisher: Simon & Schuster International, 2006.
ISBN-13: 978-0684832678

Other supplemental materials: Code Academy

Code Academy is the best available tool for teaching HTML, CSS, and JavaScript. In this course you are required to complete two code-academy course, HTML and CSS. Upon completion of the courses, the link to the student's profile is submitted to Moodle. The user profile displays badges for completing sections of each course. Students receive credit towards their final grade based on the percent completed

Required Courses:

1. <https://www.codecademy.com/learn/learn-html>
2. <https://www.codecademy.com/learn/learn-css>

Specific course information

a. Brief description of the content of the course (Catalog Description)

This course discusses the concepts and skills required to plan, design and build websites. It will be taught in a lab to ensure hands-on experience with each of these tasks. The course begins with an overview of web technologies. Students learn to plan websites, which includes determining the business and end-user requirements for the site. Design includes learning to develop "mockups" of how the site will look and how people will use it. The major tools for building websites will be industry standard HTML and XHTML to describe web page content, and Cascading Style Sheets (CSS) for flexibly formatting the content. Using entire site, as well as "future-proofs" a website, allowing it to be viewed on every major web browser (such as Firefox or Chrome) and easily adapt to changes in future browser technology. The course features substantial hands-on projects comprising websites of several interlinked pages and images, enabling students to thoroughly learn the course's important concepts and skills.

b. **Prerequisites or co-requisites:** None

c. **Is this course a required, elective, or selected elective course in the program:** *required*

Specific goals for the course

- a) Students will be able to create a visual design mockup for a multi-page website that demonstrates visual design concepts. (P3)
- b) Students will be able to develop a multi-page website using HTML, CSS, and JavaScript with proper composition, typography, and color (P4)
- c) Students will be able to explain how a cookie is used to track Internet users as they go from site to site as well as ethical concerns over the use of cookies. (A14)

Learning outcomes versus course goals.

| Student Outcomes | Addressed by |
|--|--------------|
| (a) An ability to apply knowledge from computing, mathematics, statistics, and management to effective Information Systems practice. | |
| (b) Have demonstrated the capability to analyze problems and systems, and identify/define/design apropos computing/IS/IT solutions, tools and methodologies. | a |
| (c) Have achieved and demonstrated a working knowledge of the SDLC (Software Development Life Cycle) which includes requirements analysis, systems design, implementation, testing, deployment, maintenance, and evaluation, and applied it to Information Systems projects that solve problems where computing solutions are appropriate. | a,b |
| (d) An ability to function effectively on teams in order to accomplish a desired goal. | |
| (e) An understanding of the ethical, societal and professional responsibilities of the Information Systems professional. | c |
| (f) An ability to communicate effectively in both oral and written modes. | |
| (g) An ability to identify and analyze the bi-directional impact of socio-technical problems and computing on individuals, organizations and society, including ethical, legal, security and policy issues. | c |
| (h) An ability to invoke current techniques, skills, tools and methodologies necessary to becoming an effective Information Systems professional. | a,b |
| (i) An understanding of the need to engage in continuing professional development, and to understand the purpose of research in the Information Systems and Computing fields, and how this benefits current practice. | |
| (j) (BSBIS) An understanding of processes that support the delivery and management of information systems within a business/managerial/organizational environment. OR (BAIS) An understanding of processes that support the delivery and management of information systems to either a business/managerial/organizational environment, or a publishing/media/communications environment. | |

| | |
|-----------------------|--|
| (k) None of the above | |
|-----------------------|--|

Topics Covered

1. Students will understand the history behind the development of the Internet.
2. Students will be able to create a multi-page website using HTML, CSS and Javascript.
3. Students will be able to create a website using a structured process that consists of defining requirements, creating a mockup, and coding the final website using the visual design components of Typography, Color, and Composition.
4. Students will be able to select the most appropriate image file format for use online
5. Students will be able to use Linux commands to manage files and folders on a web server
6. Students will be able to use SFTP/FTP to upload and download files to a web server
7. Students will be able to demonstrate website usability concepts by designing a navigation menu for a website.
8. Students will be able to demonstrate information architecture principles by designing a website home page.
9. Students will be able to define basic terminology used by web page analytics tools such as Google Analytics
10. Students will be able to explain the architecture behind the processing of how web pages are accessed and transmitted across the Internet

Grading

Grading Category Weights

Project(s): 25%
Mid-Term Exam: 25%
Final Exam: 25%
Homework: 15%
Work Participation: 10%

Grading Scale

| | |
|--------------------|-------------------|
| A: 90 - 100 | C: 70 - 75 |
| B+: 86-89 | D: 60 - 69 |
| B: 80 - 85 | F: 0 - 59 |
| C+: 76-79 | |

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

Project Rubric

The project is broken up into four separate parts totaling 25% of your final grade. Each of the four parts is graded on a scale of 0-100. The first three parts are worth 5% of your

total grade. The final part is worth 10% of your grade. Make sure you complete and submit all parts on time.

Homework Rubric

You are expected to complete all of your homework assignments. The following grades will be given for each homework assignment

3 – Above Average Performance – Thoughtful Visual Design and/or Technically Advanced. All requirements are met.

2 – Average Performance – Demonstrates all major requirements

1 – Below Average Performance – Submitted with obvious technical and/or visual deficiencies

0- Non-passing Performance – Assignment submitted but did not meet minimum requirements

Blank in Moodle – no submission. No assignment credit. Work participation grade is also lowered.

Work Participation and Attendance

Attendance will be taken for each class meeting and is important for you to gain the most from this course. This course is offered face to face in order for you to gain the most understanding of the material and to be able to ask questions in real-time. Attendance will be used to determine the higher or lower of two grades when you are between grade cutoffs such as above 85 but not fully 86. The more classes you attend, the better chance you have of gaining the higher grade.

Work Participation is worth 10% of your final grade. Many people, including the course instructor, worked for a long time as a consultant that was home-based. Customers only knew me from the work I handed to them on time. My customers did not accept excuses for late work. In order to better prepare you for the many work places which work on a results basis with flexible hours and attendance policies, I put the weight of this grade into your results, not just sitting in a seat. That said, if you have a life situation that needs to be taken into account for your performance, please see me. Medical excuses must go through the Dean of Students office.

Any missing homework assignments, A01-A15, go against your work participation grade. Missed homework assignments not only get a zero for the

assignment but also a lowering of your work participation grade. This is how I calculate your participation grade:

$$(Number\ of\ assignments\ attempted / Number\ of\ total\ assignments * 10)$$

With this formula, the proportion of the work you attempt is considered your participation. Do not miss assignments. They must be on time or no credit is given.

Late Project Policy

All projects and assignments must be turned in on time, or no credit is given.

Extra Credit Policy

There is no extra credit assignments given. You do the assigned work at the time it is given and submit it on time for a grade.

Make Up Policy

There are no make ups for missed assignments or exams. The grade is entered as Zero.

Absence Policy

You are expected to attend every class if you will not attend a class you should notify me that you will not be attending. **MISSING 5 OR MORE CLASSES WILL LOWER YOUR FINAL GRADE BY ONE LETTER GRADE. YOU MUST SIGN YOURSELF IN ON THE ATTENDANCE SHEET TO BE COUNTED. IT IS YOUR RESPONSIBILITY TO MAKE SURE YOU ARE SIGNED IN. SIGNING SOMEONE ELSE IN IS COUNTED AS CHEATING. SEE ACADEMIC INTEGRITY POLICY FOR PENALTY.**

Medical Excuses need to be reported to the Dean of Students and they will decide if it is to be excused or not.

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.

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.

Use of file sharing sites such as CourseHero.com is strictly forbidden. Students either posting or using these sites will be referred to the Dean of Students for disciplinary action and/or copyright infringement prosecution.

This is your only warning. Cheating is not worth it - you may not only fail this course, but also be suspended or expelled from NJIT. THE INSTRUCTOR RESERVES THE RIGHT TO REQUIRE REMOTE EXAM PROCTORING SOFTWARE SUCH AS RESPONDUS.

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

<http://www.njit.edu/doss/code-student-conduct-article-11-university-policy-academic-integrity/>

Class Communication Space/Learning Management System

We will be using Moodle, an open source Learning Management System at NJIT, for the posting of projects and class resources and other class announcements are postings. Students having questions on projects, etc., may contact Dr. Hendela directly at ahh2@njit.edu or, if the answer would benefit the class, post the question in the appropriate forum within Moodle. Students are obligated to log into Moodle on a near-daily basis, and to keep current. DO NOT use the Moodle Message feature. It does not give your name or class section. I cannot respond to these messages. Email me instead.

Calendar:

| Week | Lecture/ Homework |
|-------------|--|
| 1 | 1. History of the Internet |
| | A01. Create an account on Code Academy |
| | A02. History of the Internet - Timeline |
| | P1. Project - 1st Step |
| | P2. Project - 2nd Step |
| | P3. Project - 3rd Step |
| | P4. Project – 4 th Step |
| 2 | 2. How the Internet Works |
| | A03. A03. Create a Github Account with Git/Webstorm/Github/Tutorial. Define Terms |
| | A04. Complete the Code Academy course |
| 3 | 3. Gentle intro to HTML and CSS - Murach Chpt 1 |
| | A05. Getting your feet wet - HW assignment CH1 |
| 4 | 4. Linux and Basic HTML & CSS - Murach Chpt 2 |
| | A06. Edit your first web page |
| | A07. How to code, test, and validate a web page |
| 5 | 5. Website design guidelines, methods, and procedures – Murach Chpt 17 |
| 6 | 6. How to use HTML to structure a web page - Murach Chpt 3 |
| | A08. Chapter - 3 - HW Assignment - Main |
| | A09. Create an HTML page for a speaker |
| 7 | 7. How to use CSS to format the elements of a web page - Murach Chpt 4 |
| | A10. Unit 7 - HW Assignment |

| Week | Lecture/ Homework |
|-------------|---|
| 8 | 8. How to use the CSS box model for spacing, borders, and backgrounds - Murach Chpt 5 |
| | A11. Applying techniques learned using the CSS box model for spacing, borders, and backgrounds |
| | Mid Term |
| | |
| 9 | 9. How to use CSS for page layout - Murach Chpt 6 |
| | A12. How to use CSS for page layout |
| 10 | 10. How to work with lists and links - Murach Chpt 7 |
| | A13. Unit 10 – Chapter 7 Murach - HW |
| | |
| 11 | 11. Responsive Web Design, Javascript and Cookies - Murach Chpt 8 |
| | A14. Unit 11 - HW Create and Display Cookies |
| | A15. Unit 11 - Chapter 8 Murach - HW - Media Queries |
| 12 | 12. Images - Murach Chpt 11 |
| 13 | 13. Fonts and Printing - Murach Chpt 15 |
| | |
| 14 | 14. Project Workshop |
| | |
| 15 | Final Exam - In class or remote using Respondus lock down browser with Web cam at Professor's SOLE discretion. |
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