

UNIVERSITY OF CAPE COAST
COLLEGE OF AGRICULTURE AND NATURAL SCIENCES
SCHOOL OF PHYSICAL SCIENCES
DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY

Course Number: INF 313
Course Title: Web Technology II
Number of Credits: 3
Semesters Offered: First Semester (2019/2020)
Lecturer: Dr. (Mrs.) Alimatu – Saadia Yussiff
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COURSE DESCRIPTION:

This course aims to provide students with knowledge and required expertise to develop web applications. Students will learn the concepts of client-side and server-side scripting. The course introduces various methods and tools used in developing web applications. Students will be able to use HTML5, DHTML, JAVASRIPT, PHP, and MySQL to develop a complete web site.

PRE-REQUISITE: Internet Technology I

LEARNING OUTCOMES:

Upon completion of the course, the student will have developed and demonstrated a clear understanding of the following topics:

- Understand the major areas and challenges of Web programming.
- Distinguish web related technologies.
- Use advanced topics in HTML5, CSS3, JavaScript
- Use a server-side scripting language, PHP
- Use a relational DBMS, MySQL
- Use PHP to access a MySQL database.
- Design and implement
 - interactive web applications.
 - Dynamic web applications.

OUTLINE OF INSTRUCTION:

Lecture	Activity/Topic	Assignment/Test due
Week 1	Introduction to the course Planning and Designing a Client Website Principles of Web Technology & Design Website Publishing Going Live	
Week 2	Reviewing: <ul style="list-style-type: none">• HTML5 Tags• Forms• CSS• XML Demonstrations and Hands-on	

	<ul style="list-style-type: none"> • Testing & Debugging HTML and CSS <p><u>Assignment/ Lab</u> Assignment on HTML and CSS</p>	
Week 3	<p>JavaScript Part 1 <u>Demonstrations and Hands-on</u></p> <ul style="list-style-type: none"> • Testing & Debugging JavaScript pages <p><u>Assignment/ Lab</u> Assignment on JavaScript</p>	Assignment 1 due
Week 4	<p>JavaScript Part 2 <u>Demonstrations and Hands-on</u></p> <ul style="list-style-type: none"> • Testing & Debugging JavaScript pages <p><u>Assignment/ Lab</u> Assignment on JavaScript</p>	
Week 5	<p>JavaScript Part 3 <u>Demonstrations and Hands-on</u></p> <ul style="list-style-type: none"> • Testing & Debugging JavaScript pages <p><u>Assignment/ Lab</u> Assignment on JavaScript</p>	Test 1
Week 6	<p>Database Part 1 <u>Demonstrations and Hands-on</u> Designing, Testing & Debugging Database <u>Assignment/ Lab</u> Assignment on JavaScript</p>	Assignment 2 due
Week 7	<p>Database Part 2 <u>Demonstrations and Hands-on</u> Designing, Testing & Debugging Database <u>Assignment/ Lab</u> Assignment on Database</p>	
Week 8	<p>PHP Part 1 <u>Demonstrations and Hands-on</u></p> <ul style="list-style-type: none"> • Installing PHP and SQL <ul style="list-style-type: none"> ◦ installing a text editor, installing MAMP or XAMPP (or equivalent), • Creating and debugging PHP program files. 	Assignment 3 due DB Intro Exercise
Week 9	PHP Part 2	Test 2

	<u>Demonstrations and Hands-on</u> <ul style="list-style-type: none"> • Creating and debugging PHP program files. <u>Assignment/ Lab</u> Assignment on PHP	
Week 10	PHP Part 3 <u>Demonstrations and Hands-on</u> <ul style="list-style-type: none"> • Creating and debugging PHP program files. <u>Assignment/ Lab</u> Assignment on PHP	Group Project Demo
Week 11	PHP Part 4 <u>Demonstrations and Hands-on</u> <ul style="list-style-type: none"> • Creating and debugging PHP program files. <u>Assignment/ Lab</u> Assignment on PHP	Group Project Demo
Week 11	Group Project Presentation	
Week 12	Group Project Presentation	
Final Exam TBA		

TEXTBOOKS:

- Sebesta, Robert W., *Programming the World Wide Web, Eighth Edition*, Addison Wesley, 2015. ISBN: 978-0-13-377598-3.
- PHP and MySQL Web Development, 5th Edition, Luke Welling and Laura Thomson
- Castro, E., & Hyslop, B. (2013). HTML and CSS: Visual QuickStart Guide 8th Edition.
- Sam's Teach yourself html, CSS and JavaScript all in one, 2nd Edition, 2015. By: Julie C Meloni

ONLINE RESOURCES:

1. You can read more and practice at:
 - o https://www.w3schools.com/html/html5_intro.asp
 - o <https://learn.saylor.org/course/view.php?id=107>
 - o <https://learn.saylor.org/mod/quiz/index.php?id=107>
 - o https://www.academia.edu/34917035/Programming_the_World_Wide_Web_8th_ed_-_Robert_W._Sebesta.pdf
2. You can validate your html pages at: <http://validator.w3.org>

METHODS OF INSTRUCTION:

- Teaching will take the forms of: lectures, demonstrations, assignments, and presentations.

ASSESSMENT:

The course is assessed through a combination of group and individual coursework, practical assignments, project work and formal examinations. These are detailed below:

- Two Class Tests/Quizzes
 - Class Tests/Quizzes - 1 will take place around 5th week into the course
 - Class Tests/Quizzes - 2 will take place around 8th week into the course
 - Both exams will be closed book, closed notes, **with or without computers**.
- Programming Assignments
 - Numerous programming assignments will be given during the semester. To receive full credit for work done, programs must be submitted by the **END** of the day on the day they are due.
- Each programming assignments has its own criteria used for evaluation. But two general criteria that your programs should meet are:
 1. Validity - does the program do what it is supposed to do? Does it produce the specified outcomes, and handle error conditions correctly and elegantly?
 2. User Interface (30%) - are the web pages, (i.e. user interface) designed so the client can easily navigate and find the information he is searching for?
- The assessments scores are illustrated in the following table:

Component	Worth (%)
Attendance	20
Labs	40
Tests	40
Group Project	40
Final Exam	60

GRADING:

The final grade will be ranked on the scale below:

A = 79.5 - 100	B+ = 74.5 - 79.4	B = 69.5 - 74.4
C+ = 64.5 - 69.4	C = 59.5 - 64.4	D+ = 54.5 - 59.4
D = 49.5 - 54.4	E = 0 - 49.4	

COURSE POLICIES:

Attendance	This is a "hands-on" class. 80% - 90% of your work will take place in class, so it is essential that you be here. Attendance is integral to learning, thus attendance will be taken at the beginning of each class. The instructor reserves the right to administratively withdraw any student from class for excessive absences (if more than four classes are missed during the semester). All students are responsible for missed exercises, projects, discussions or announcements missed due to absence. There may be an occasion when it is unavoidable to be late for class, and these instances are acceptable with reason. If a student has a conflict between this class and another class, this should be brought to the instructor's attention
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	immediately so other arrangements can be made. However, constant tardiness is unacceptable.
Class participation	<p>Subscribe to join the Web Technologies I class on the Piazza. This will alert you to any relevant news that applies to Web Tech.</p> <p>Class participation is a major part of the performance indicators. Points will be awarded to students who evidence quality participation. Consequently, students are expected to come to lectures having thoroughly read their assigned materials. After each reading, outline the central arguments, offer your analysis of the strengths and weaknesses, and relate the material to understanding issues in the Ghanaian workplace. See how to participate in an online discussion here</p> <p>Occasionally we will be critiquing your projects. Participation in critique is essential to the evaluation procedure and every student is expected to attend with their completed projects. All students will share in articulating, analyzing and evaluating their own work and peer projects. Critiques are a common practice in the industry; therefore, students need to be able to present their work effectively. Critiques also allow students to view alternative solutions and different software techniques.</p>
Quiz or Test	If for any justifiable reason the student will miss a quiz or test, the student should get clearance from the lecturer in advance. Retrospective permissions will not be granted.
Assignments	<p>Weekly assignments will be available either from the Piazza, Google Classroom, or will be posted at the end of the class PPT note. Be sure to consult all for any due assignments.</p> <p>If for any justifiable reason the student will miss an assignment, the student should get clearance from the lecturer in advance. Retrospective permissions will not be granted.</p> <p>All assignments must be handed in at the stated time and in the stated form or they will automatically receive a grade of zero. Late assignments are not acceptable. It is your responsibility to retain a copy of all assignments should any questions arise later concerning that assignment.</p> <p>Students are to submit all assignments typed, with font size of 12, doubled spacing, good margins (justified), with an appropriate referencing style (APA style), with cover page and table of content. Students are to ensure that they comply with rules of page limit.</p>
Late submission of assignments	Late assignments will not be tolerated. If a student has any genuine problem, he/she must contact the lecturer before the deadline for the submission of the assignment. There are no guarantees for extension of time; each case will be treated on its own merit.
Grading of group work	Unless group members present evidence to the contrary, all members of the group will be presumed to have worked equally and be entitled to the same group mark. Groups are encouraged to indicate in their reports members who did not participate in the group assignments so that they can be treated differently.
Academic dishonesty	Cheating and plagiarism will be severely penalized. Students are advised to acknowledge sources they consult in preparing their papers and reports. Though students are encouraged to use the Internet as sources of information, papers copied from the internet will be rejected.

	<p>Copyright Infringement All images, icons and videos downloaded and used in your Web sites must not violate copyright law. If any copyright rules are violated the student will be given 0 points for the assignment. There are no make-ups or improving the grade if any copyright rules are violated!</p> <p>Ethics Academic dishonesty in all its forms, including cheating, fabrication, plagiarism, or aiding / abetting any of the aforementioned will be dealt with severely</p>
Use of Mobile Phones	The use of Mobile/Cell phones is prohibited during lecture hours. It is advisable to put your phone(s) to silent or vibration mode. To be on a safer side turn it off.