CSCI 4000 Syllabus (10)

COURSE NUMBER: **CSCI 4000**
COURSE TITLE: **Database-Driven Web Development**
CREDITS: 3
PREREQUISITES: CSCI 3300
SEMESTER / YEAR: Fall 2022

INSTRUCTOR:

	Name:	Leong Lee
	Office:	Maynard 206 / 207
	Office Hours:	Tue/Thu: 9:00am-11:00am,
		Fri: 10:00am-11:00am,
		or by appointment
	Office Hours Format:	**In-person**
		OR **Microsoft Teams**. New Chat "Lee, Leong", followed by video call if needed
	Phone:	931-221-7038
	E-mail:	leel@apsu.edu

CLASS WEB SITE: Please refer to D2L.

PROGRAMMING TUTORING
Check out programming peer tutoring service/timing/venue at this link, or use the following URL:
https://www.apsu.edu/csci/opportunities_resources/computer-science-tutoring-services.php

COURSE DESCRIPTION
This course covers the development of web-based data management and information retrieval applications that connect to databases using a server-side programming language. This course also covers the configuration and maintenance of databases and web servers, for the purpose of deploying dynamic web applications.

COURSE OBJECTIVES
At the completion of the course, the student will be able to:
1. Install and configure a web server and a database server for the purpose of deploying dynamic websites.
2. Identify and apply server-side programming concepts such as requests, functions, data types, operators, arrays, and control structures.
3. Design and write server-side programs to get data from web forms.
4. Use the MVC (Model-View-Controller) pattern to organize server-side program code.
5. Design and develop database driven dynamic web applications.

STUDENT LEARNING OUTCOMES
- Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions. (SLO1)
- Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline. (SLO2)
- Support the delivery, use, and management of information systems within an information systems environment. (SLO6-CIS)
- Use systemic approaches to select, develop, apply, integrate, and administer secure computing technologies to accomplish user goals. (SLO6-CIT)

TIME AND PLACE OF CLASS: Tue/Thu 12:45am-2:10pm, Maynard 129

REQUIRED LEARNING RESOURCES

Textbooks
- Murach's PHP and MySQL, 3rd Edition, by Joel Murach, Ray Harris, ISBN-13: 978-1943872381, Mike Murach & Associates. (You can use an earlier edition, 2nd Edition.)

Others
- Laptop Computer with Internet Access
- A USB Flash Drive
- A 2nd Monitor is highly recommended (not required)

MINIMUM TECHNOLOGY REQUIREMENTS
- **Microsoft Windows**-based Computer with webcam, and mouse
- Everyday Internet access capable of supporting Zoom video conferencing
- **Zoom** Client
  - https://www.apsu.edu/online/technology/zoom.php
  - Login to Zoom
  - Install Client Software
    - **sign in with SSO**
    - **apsu**.zoom.us (company domain)
    - use apsu email login, you should see "licensed" next to your name
- **Microsoft Teams** Client
  - MS Teams is part of MS Office 365.
  - APSU students can install Office 365 Apps on up to 5 personal devices, FREE.
  - To install Office 365 Client
    - i.   https://govstech.apsu.edu/TDClient/2071/Portal/Requests/ServiceDet?ID=14541
      - 1.   Install Office 365
      - 2.   Login in using apsu login
    - ii. After login to outlook, upper left corner (Icon) > Office 365 > Install Office
  - Install MS Teams Client, login in with apsu login

ATTENDANCE POLICY
Students are expected to attend all classes, arrive on time and participate in classroom discussions. Students are expected to remain in class until the class is finished unless extenuating circumstances such as illness requires the student to leave. If a student leaves class early, the instructor must be notified as to the reason that the student left.
A grade of **FA** (to include the last date of attendance) will be reported within **14 days** of the last day of attendance. A grade of FN and an entry of the first date of class in the last date of attendance column will be reported within the first **14 days** of class. The FN grade is considered to be an official withdrawal from the class and may impact the enrollment status of a student (full-time to part-time).

ASSIGNMENTS / PROJECTS
Assignments (projects) will be both written and programming. The instructor will not make any adjustments to a student's code when grading, so if any submitted program does not run the student will get a zero on the "correctness" portion of the grade (or **50 points off** the overall grade), with no exceptions. Program source code will be turned in electronically.

LATE POLICY AND MAKEUP EXAMS
Assignments (projects) are due on the stipulated due dates, and may be turned in **up to 7** calendars days late with a **25% late penalty**. No assignment will be accepted more than 7 calendar days after the original due date! Students with planned absences, whether for university events, religious observance, or other reason, are expected to make arrangements with the instructor to turn in assignments or take exams before the scheduled date of the assignment or test.

Exam/test dates are on the schedule on the following page — if there are any changes, they will be announced at least one week in advance if possible. A missed exam may be made up only if it was missed due to an extreme emergency and arrangements are made before the exam date. Exams may not be taken early or late due to personal travel plans.

EVALUATION AND GRADING
Each student activity will contribute to the final grade in the class according to the following percentages.

Activity	Percentage
Assignments	50%
Mid-semester exam	25%
Final exam	25%

Final Percentage	Final Grade
90 - 100	A
80 - 89	B
70 - 79	C
60 - 69	D
Below 60	F

POLICY ON MINORS
Minors accompanying staff, faculty, students, or visitors on campus are not permitted in classrooms. However, affiliated minors may utilize classrooms designated for use by a program approved by the university in which they are a participant.

SERVICE ANIMALS IN THE CLASSROOM
Consult APSU Policy 3:007 Animals on Campus for appropriate situations allowing service animals in the classroom.

DISABILITY POLICY
Any student who has a disability that may affect his/her academic performance is encouraged to make an appointment with me to discuss this matter, or you may contact Disability Services; telephone 221-6230; tty 221-6278; fax 221-7102.

ACADEMIC AND CLASSROOM MISCONDUCT
Students are expected to conduct themselves appropriately at all times. Academic and classroom misconduct will not be tolerated. Students must read the "Code of Student Conduct" in the new Student Handbook for an understanding of what will be expected of them within the academic setting. APSU Policy 3:005 Student Academic and Classroom Misconduct will be followed in reporting any suspected cases of academic misconduct.

Students are required to turn in their own work and not the work of others. Collaboration on homework, assignments, quizzes, and exams is prohibited, unless otherwise specified by the instructor. Likewise,

plagiarism of other's work or web-related sources constitutes a serious infraction. This includes submitting work very similar to another student's project, copy and paste from Internet searches, using code found on another computer, and using Internet sites for hiring coders or tutors to complete a project. "Penalties for academic misconduct will vary with the seriousness of the offense and may include, but not limited to, a grade of "F" on the work in question, a grade of "F" in the course, reprimand, probation, suspension and expulsion." (Quoted from APSU Academic and Classroom Misconduct). Protect your own work. Do not leave your assignments on the hard drives of the computers or printers in the lab for others to see. If you are ever worried that anything you do may be flagged for academic dishonesty, please contact me for help and guidance.

TOPICAL OUTLINE/CALENDAR

Week / Date	Topic	Reading	Remarks / Due / Exam
1 8/22, Mon	Introduction to web development with PHP	PHP Ch. 1	
2 8/29, Mon	How to code a PHP application	PHP Ch. 2	
3 9/5	How to code control statements How to create and use arrays	PHP Ch. 8 PHP Ch. 11	9/5: Labor Day – APSU Closed **Assignment 1** Due – 9/11 Sun
4 9/12	Introduction to relational databases with MySQL	PHP Ch. 3	
5 9/19	How to use PHP and MySQL database	PHP Ch. 4	**Assignment 2** Due – 9/25 Sun
6 9/26	How to use PHP and MySQL database	PHP Ch. 4	
7 10/3	How to work with strings and numbers	PHP Ch. 9	**Assignment 3** Due – 10/9 Sunday
8 10/10	How to use MVC pattern to organize your code	PHP Ch. 5	10/10-10/11: Fall Break, No classes
9 10/17	How to use MVC pattern to organize your code	PHP Ch. 5	**Mid-semester exam** – 10/20 Thu
10 10/24	How to use MVC pattern to organize your code	PHP Ch. 5	10/24: Last day to drop a class (grade of "W" will be awarded) **Assignment 4** Due – 10/30 Sun
11 10/31	How to work with form data How to work with dates	PHP Ch. 7 PHP Ch. 10	
12 11/7	Create and use arrays (advanced)	PHP Ch. 11	11/11: Veteran's Day - No classes **Assignment 5** Due – 11/13 Sunday
13 11/14	AJAX	JavaScript Examples	
14 11/21	AJAX	JavaScript Examples	11/23-27: Thanksgiving Holiday - No classes, APU Closed 11/24-27
15 11/28	Exam Revision		**Assignment 6** Due – 11/28 Monday 11/30, Wed: Last day of classes 12/1, Thu: Study Day 12/2-8: Final Exam Period
16 12/5	**12/6, Tue, 10:30am-12:30pm: Final Exam**		Final Exam

LAPTOPS AND OTHER ELECTRONIC DEVICES IN THE CLASSROOM: Cell phones must be turned off or on vibrate during class. NO cell phone can be answered during class unless there is an emergency situation and you have discussed the emergency with the instructor prior to class. No text messaging is permitted during class. Laptops/tablets are permitted whenever the student considers the laptop/tablet as an enhancement of his/her learning experience. However, the student MUST be using the laptop/tablet in a manner that directly relates to the content of this class such as viewing the slides from the lecture or taking notes. The laptop/tablet must not be a distraction to others in the class. No other electronic devices will be allowed in class without prior consent of the instructor.

CAVEAT: Policies and procedures may change due to extenuating circumstances.

SYLLABUS SUPPLEMENT

ZOOM Guidelines
Some or all of the class sessions may be audio/visually recorded. The video and/or audio recordings may be used for educational purposes and may be made available to all students currently enrolled in the course and to university officials with a legitimate educational interest in reviewing the recording. The recording is made for educational purposes to provide a resource to students during the remainder of the course.

Students should not make their own recording of the class session or distribute a copy of the instructor's recording of the class session unless appropriate approval has been received prior to making the recording. Distributed recordings are not a transfer of any copyrights in the recording. Public distribution of such materials by students may constitute copyright infringement in violation of federal or state law, or University policy. Further, the University prohibits the recording or transmission of classroom lectures and discussions by students unless written permission from the instructor has been obtained and all students in the class as well as guest speakers have been informed that audio/video recording may occur. Violators may be subject to disciplinary action pursuant to the Student Code of Conduct.

Statement from APSU Academic Affairs and Legal Affairs
APSU is committed to the free and full exchange of ideas and perspectives that is central to the educational enterprise. We are also committed to encouraging students—and all people—to be exposed to, and think critically about, sensitive topics and issues. This is an essential element of higher education and necessary to better prepare students for community participation and robust civic engagement. Curricular materials on concepts including but not limited to racism, sexism and classism may be presented and discussed in this class; while students are expected to master course content, it is not expected that students endorse or subscribe to any theory or viewpoint.

This course is dual listed between UG and GR (Separate Syllabi for UG students and GR students)
Undergraduate courses are primarily divided between lower division courses numbered 1000 and 2000 level courses and upper division courses numbered 3000 and 4000 level courses. Upper division courses are considered progressively more complex in terms of learning outcomes and the demonstration and application of knowledge. If you are in a dual listed course with both graduate and undergraduate students, ensure that you complete the coursework as outlined by the instructor that is appropriate for your student status.