

Web and Distributed Programming

SU18-CPSC-24700-LT1, Summer 2018

Course Syllabus

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# Course & Instructor Information

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| Instructor:  Email:  Phone: | Eric Pogue  [epogue@lewisu.edu](mailto:epogue@lewisu.edu)  563-209-7280 (personal mobile) |
| Dates:  Times:  Location: | Monday, May 14 through Friday, June 8, 2018 per Academic Calendar  Key Topic Lectures available noon on Mondays  Live (virtual) Lectures on Wednesdays from noon to 2:45 [[link]](http://cpsc-24500-sp18-lt1.azurewebsites.net/live-lecture.html) |

# Contacting the Instructor

Please let me know when you have questions or concerns. Email is generally the most effective way to reach me. I will make every effort to respond as quickly as possible. If for some reason I don’t respond within 24 hours, I encourage you to resend your message.

Finally, let me know as early as possible if you are having difficulties. There are many more options for us to resolve or minimize an issue if are able to discuss it sooner rather than later.

# Course Description

Languages and technologies for programming and leveraging web-based computer services securely. Languages include PHP, Perl, JavaScript, Java, Ruby, CSS, and HTML5. Technologies include relational databases, web services, Hadoop, and cloud computing platforms. This course teaches students how to develop useful applications using a variety of distributed data and programming models.

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| Prerequisites: | CPSC 20000 Introduction to Computer Science or consent of instructor |
| Credits: | 3 |

# Course Materials

Reference materials for this course will focus on class slides, notes, and online sources.

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| Textbook: | Programming the World Wide Web 8th Edition, Robert W. Sebesta, Addison-Wesley, 2015 (ISBN 978-0-13-377598-3) |
| Reference Materials: | Class slides, notes, and online sources will serve as reference materials. These will be posted online and linked via Blackboard. New materials will be made available at one and two-week intervals. |
| Recordings: | Discussion sessions and important topic lectures will be recorded and posted online. |

# Student Learning Outcomes

On the successful completion of this course students will be able to:

* Understand the ideas of distributed computing and the World Wide Web / Internet
* Create web pages with HTML5 and CSS
* Utilize a cloud-based computing platform (Microsoft Azure) to host a basic website
* Understand the best Web design practices
* Create dynamic and interactive web sites using JavaScript
* Understand XML and Web services
* Understand basic database concepts and make simple SQL queries
* Write PHP scripts to process forms and interact with databases
* Understand the basics of the various software development lifecycle processes
* Provide an overview of Perl, Java, and Ruby
* Understand the Hadoop framework and MapReduce programs

# Schedule of Topics and Assigned Work

Each week will include one or more labs, a project to be submitted, and a discussion board topic. These three items will be summarized, consolidated, and graded in a single weekly assignment. Every other week will also include a test/quiz.

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| Week | Topics | Assignments |
| 1 | The Internet, World Wide Web, Web Browsers, Web Servers, and HTML | Assignment 1 (lab, programming project, and discussion board topic)  Sebesta, Chapter 1 & 2  Test/Quiz 1 |
| 2 | HTML, XHTML, JavaScript basics, Object-oriented programming, Functions, Arrays, and Control statements | Assignment 2  Sebesta, Chapters 3 & 4 |
| 3 | JavaScript, Document Object Model, Event Handling, Buttons, Text boxes, and Canvas | Assignment 3  Sebesta, Chapter 5  Test/Quiz 2 |
| 4 | Dynamic Documents, Positioning and moving elements, and Dragging & Dropping | Assignment 4  Sebesta, Chapter 6 & 7 |
| 5 | Ajax, Ajax Toolkits, Relational Databases, and Structured Query Language | Assignment 5  Sebesta, Chapter 10 & 13  Tet/Quiz 3 |
| 6 | Cloud Computing & Map Reduce | Assignment 6 |
| 7 | Advanced Topics in Web Development, and final project and team proposals | Assignment 7 – Final project proposals  Test/Quiz 4 |
| 8 | Final projects, final project videos and/or final project presentations | Final Project presentations June 5th through June 7th |

# Instructional Methods and Assignments

This class is an online accelerated class which will include both interactive virtual lecture and key topic sessions which will both be recorded and made available for students who cannot attend.

Assignments for this course will take the form of quizzes, labs, programming projects, and participation.

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| Tests/Quizzes: | Tests/Quizzes will be assigned at the end of weeks 1, 3, 5, and 7. |
| Programming Projects: | Programming projects are the most important element of this class and will be assigned to be delivered in one or two-week intervals. |
| Participation: | Participation and engagement can be demonstrated in our virtual discussion and lecture sessions, via Blackboard discussions, and through interactions with your fellow online classmates. |

Programming projects are the most essential element of this course and will account for approximately 60% of the final grade. Leaving quizzes and participation to account for approximately 30% and 10% respectively.

# Late Assignments & Partially Completed Assignments

Late assignments will not be excepted except under extreme circumstances. It is vastly preferable to turn in a partially complete assignment than to turn in a late one.

Similarly, it is vastly more beneficially to turn in an assignment that has 70% of the features working 100% than to turn in an assignment that has 100% of the features working 70%.

# Grading Policies

Final course letter grade will be determined using the following approximate scale:

A >= 90 C- 70-72.99

B+ 87-89.99 D+ 67-69.99

B 83-86.99 D 63-66.99

B- 80-82.99 D- 60-62.99

C+ 77-79.99 F < 60

C 73-76.99

# Drop and Withdrawal Deadlines

Information regarding important drop and withdrawal dates and policies can be found on the Lewis University Bursar’s webpage [[link]](http://www.lewisu.edu/welcome/offices/business/bursar/refund.htm).

# Plagiarism:

# Copying work from each other or from the Internet will be punished harshly and appropriately. This includes viewing test, quiz, or assignments from current or previous class sessions. Measure of Software Similarity (MOSS) or similar software may be utilized to detect copied work on assignments.

Also see “Academic Honesty” below.

# Connection to Mission:

The Mission of Lewis University is to prepare lifelong learners who will use their knowledge, faith, wisdom, and talents to improve the lives of others. The Lewis University Mission Statement can be found online [[link]](http://www.lewisu.edu/welcome/mission.htm).

In our modern, digital world, there is no field that can as profoundly improve the lot of others than Computer Science. By taking this third course in the major, you will be moving much closer to your goal of becoming a world-improving computer scientist, one who can write efficient data-aware applications that inform.

# Class Attendance Policy

Students are expected to attend all classes as part of the normal learning process. Students bear the ultimate responsibility for all missed class material as the result of an absence and can be required to make up any work missed.

Students must be especially consistent in attendance, both on-ground and online, during the first two weeks of the class to confirm registration and to be listed on the official course roster. Students who fail to attend the first two weeks and who have not received prior approval from the instructor for absences will be withdrawn from the courses in question by certification of the instructor on the official class lists.

Additional information relating to Class Attendance Policy is available online [[link]](http://lewisu.smartcatalogiq.com/en/Undergrad-2017-2018/Undergraduate-Catalog/General-Information/Registration/Class-Attendance).

# Academic Honesty

Scholastic integrity lies at the heart of Lewis University. Plagiarism, collusion and other forms of cheating or scholastic dishonesty are incompatible with the principles of the University. Students engaging in such activities are subject to loss of credit and expulsion from the University. Cases involving academic dishonesty are initially considered and determined at the instructor level. If the student is not satisfied with the instructor’s explanation, the student may appeal at the department/program level. Appeal of the department /program decision must be made to the Dean of the college/school. The Dean reviews the appeal and makes the final decision in all cases except those in which suspension or expulsion is recommended, and in these cases the Provost makes the final decision.

* Policies regarding make-up examinations and late submission of assignments
* Drop and withdrawal deadlines (see semester Course Schedule)
* Classroom behavior expectations (consistent with “Classroom Decorum” statement from

Student Handbook on page 14 [[link]](https://www.lewisu.edu/sdl/pdf/studenthandbook.pdf)

# Classroom Decorum

In order to maintain an environment conducive to learning and student development, it is expected that classroom discourse is respectful and non-disruptive. The primary responsibility for managing the classroom environment rests with the faculty. Students who engage in any prohibited or unlawful acts that result in disruption of a class may be directed by the faculty member to leave class for the remainder of the class period. Students considered to be a disruption or who present a threat of potential harm to self or others may be referred for action to the Dean of Student Services.

Additional information relating to Classroom Decorum is available online in the Student Handbook [[link]](https://www.lewisu.edu/sdl/pdf/studenthandbook.pdf).

# Sanctified Zone

This learning space is an extension of Lewis University’s Sanctified Zone, a place where people are committed to working to end racism, bias and prejudice by valuing diversity in a safe and nurturing environment. This active promotion of diversity and the opposition to all forms of prejudice and bias are a powerful and healing expression of our desire to be Signum Fidei, “Signs of Faith,” in accordance with the Lewis Mission Statement. To learn more about the Sanctified Zone, please visit online [[link]](http://www.lewisu.edu/sanctifiedzone).

# Students Requiring Special Accommodations

Lewis University is committed to providing equal access and opportunity for participation in all programs, services and activities. If you are a student with a disability who would like to request a reasonable accommodation, please speak with the Learning Access Coordinator, Angelia Martinez, at the **Center for Academic Success and Enrichment (CASE)**. Please make an appointment by calling **815-836-5593** or emailing learningaccess@lewisu.edu. For more information about academic support services, visit the website at: www.lewisu.edu/CASE. Since accommodations require early planning and are not provided retroactively, it is recommended that you make your request prior to or during the first week of class. It is not necessary to disclose the nature of your disability to your instructor.

# Computer Ethics

All Lewis students must abide by the Lewis University Information Services Acceptable Use Policy. This is an agreement between members of the Lewis community and Lewis University regarding use of the Internet, on-campus network, Web Page, Course Management Systems, Student Information System, and all electronic systems [[link]](http://www.lewisu.edu/welcome/offices/infoservices/All_AcceptableUsePolicy.htm)

Attention to the regulations in this policy is of particular importance for this class, given the nature of the material. No unethical hacking will be tolerated.

# Additional Policy & Guideline Resources

Additional policy and resources can be found at the links provided below.

University Student Complaint Policy [[link]](http://lewisu.edu/welcome/studentcomplaints.htm)

University Grade Appeal Policy [[link]](http://lewisu.edu/welcome/studentcomplaints.htm)

University Copyright and Intellectual Property Guidelines [[link]](https://www.lewisu.edu/academics/library/pdf/Copyright-Intellectual-Property-Guidelines.pdf)

# Potential Modifications

The instructor reserves the right to modify, change, or waive any part of the syllabus or the evaluation criteria for this course. The instructor will provide notification of any modifications.