FLORIDA STATE UNIVERSITY
COLLEGE OF COMMUNICATION & INFORMATION
School of Information

COURSE SYLLABUS

LIS4368 Advanced Web Applications Development

SPRING 2022 | T/R 3:05PM - 4:20PM

MODE OF INSTRUCTION: IN-CLASS

CONTACT INFORMATION:

Instructor: Dr. Mark K. Jowett
E-mail: mjowett@fsu.edu
Office: WJB2026
Phone: 850-645-9601
Course Website: See FSU's Learning Management System
Office Hours (in office, online or via phone): See FSU's Learning Management System
Teaching Assistant: TBD
Email: TBD

COURSE DESCRIPTION:

This course provides a foundation in developing web applications with an emphasis on server-side concepts, tools and methods. Topics include basic web application programming, advanced object-oriented (OOP) and web application development.

Students enrolled in this course will develop basic programming skills in a modern web development environment, understand web application development principles and be able to find and use web application development resources on the Internet.

PREREQUISITES:

- LIS 2780 Database Concepts
- COP 2258 Problem Solving with Object-Oriented Programming
- LIS 2360 Web Applications Development

COURSE OBJECTIVES:

Upon successful completion of the course, the student should be able to:

- Demonstrate the ability to program and deploy client/server-side scripts
- Describe web-based input and output processes
- Demonstrate web application to data source connectivity
- Develop a dynamic web application using a mix of front-end and back-end web technologies
- Employ OOP techniques, as well as business logic using a strongly typed language.
- Create client- and server-side data validation.

COURSE MATERIALS:

The following course components are essential:

- The **Syllabus** (i.e., this document) establishes course policies on grading, attendance, and exams. The syllabus should be read in detail at beginning semester;
- The **Course Calendar** (see <u>Web site</u>) is particularly useful to keep up with weekly topics, assignments, and lecture notes;
- The **Textbook (required)**: Murach's Java Servlets and JSP, 3rd Ed. Joel Murach and Michael Urban. Murach Books ISBN: 978-1-890774-78-3
- The **Course Notes** (see Web site). The online notes provide a compact view of the important topics of the course, while the textbook and reading assignments provide more detail;
- **Assignments** will be released through the course **Calendar**;
- After logging into **FSU's Learning Management System** portal, there should be a link listed for this course. The course site is the main communication resource for the class. Here you can get help, talk to other students, retrieve your grades, and generally keep up with course news and announcements.

The following <u>optional</u> reference books are sanctioned for this course:

- Murach's Java Programming (highly recommended), 4th Edition. Author(s): Joel Murach. ISBN 978-1-890774-65-3
- New Perspectives on HTML, CSS, and Dynamic HTML, 5th Edition. Author(s): Patrick M. Carey. ISBN-13: 9781111526436.
- Murach's HTML5 and CSS3. Authors: Zak Ruvalcaba and Anne Boehm. ISBN: 978-1-890774-66-0.
- Cameron, D., Rosenblatt, B., and Raymond, E. (1996). *Learning GNU Emacs, 2nd Edition*. Sebastopol, CA: O'Reilly & Associates, 1996.
  ISBN 1-56592-152-6

Technology Requirements:

Students taking this class must have access to a personal computer and be able to install software on that computer. Students will need to use specialized software packages in order to complete assignments. All required software is open source (free). Refer to the course site for details. Furthermore, the College of Communication and Information provides a computer lab in Room 106E Shores Building for use when students do not have access to a computer.

COURSE POLICIES:
First Day Attendance Policy: Official university policy is that any student not attending the first class meeting will be automatically dropped from the class. For online delivery, this policy is interpreted as posting to the discussion forum "First Day Attendance" no later than the first day of the semester.

Online: Using the Discussion Board forum "First Day Attendance," please post a greeting message to your colleagues.

<u>Regular participation</u> via **FSU's Learning Management System** course interface **is required**. Official course announcements, review materials, assignments, and help archives will all be on-line at this site. Note that all registered students should have the course web site listed on their portal page. Be sure to test this and resolve any difficulties no later than the first week of classes. Likewise, it is the student's responsibility to check their FSU e-mail on a daily basis. All course e-mail will be sent only through **valid FSU e-mail addresses**.

Exams: <u>Unless stated otherwise</u>, all exams will be taken during the exam window. (See <u>schedule</u> details below.)

CLASS SCHEDULE:
Be sure to review the Academic Calendar for important dates and deadlines:
http://registrar.fsu.edu/dir_class/

EXAM SCHEDULE:
There will be two exams: Exam1 and Exam2. The dates for the two exams are shown in the following table. Also, see Online > Notes > Exam1/Exam2 Reviews.

Exam Calendar: Taken during scheduled lab time					
Exam	*Date*	*Length*	*Start Seating*	*End Seating*	*Notes*
Exam1	Th Feb 24	50 min	3:05p	4:20p	In lab
Exam2	Th Apr 14	50 min	3:05p	4:20p	In lab

NOTE: Cellphones are *not* permitted in class.

COURSE ASSIGNMENTS AND EVALUATION:
The cumulative grade consists of the following graded items: Assignments, Projects, Exams, and in-class Quizzes. Two exams consist (counting 15% each). Assignments consist of <u>five homework assignments</u> (counting 5% each), <u>two larger projects</u> (counting 15% each), and fifteen in-class quizzes (counting 1% each).

The dates for the two exams are shown in the **Exam Calendar** above. Due dates for <u>most</u> deliverables will be available on the course Web site (**See Calendar**).

GRADE CALCULATION:
Assignment 1	5%
Assignment 2	5%
Assignment 3	5%
Assignment 4	5%
Assignment 5	5%
In-Class Quizzes (15)	15%
Project 1	15%
Project 2	15%
Exam 1	15%
Exam 2	15%

The dates for the two exams are shown in the **Exam Calendar** above. Due dates for <u>most</u> deliverables will be available on the course Web site (**See Calendar**). **Be sure to double-check** that work has been properly submitted (after visible <u>exclamation mark</u>), as well as <u>grades</u> for submitted work. **Final grades** are ***not*** rounded. Instead, opportunity for <u>extra credit</u> is provided.

SLIS POINT BASED GRADING SCALE:

A	93 - 100	C	73 – 76
A-	90 – 92	C-	70 – 72
B+	87 – 89	D+	67 – 69
B	83 – 86	D	63 – 66
B-	80 – 82	D-	60 – 62
C+	77 – 79	F	0 – 59

COURSE SCHEDULE ==(except for exams, above, see Course Calendar for specific dates)==:

WEEK	TOPICS TO BE COVERED
1	Course Overview, Expectations, and Discussion Topics. Review of Basic Topics
2	Introduction to Advanced Web Applications
3	Advanced Development Environments and Structuring Web Application Using Patterns
4	Essential HTML5 and CSS3 in Adv. Web Dev
5	Developing Servlets
6	Developing JavaServer Pages
7	Working with sessions and cookies
8	Introduction to JSP Expression Language (EL) **Exam1**
9	Introduction to JSP Standard Tag Library (JSTL)
10	Using Custom JSP tags
11	Connecting to Data Repositories
12	Using JDBC
13	Using Java Persistence API (JPA)
14	JavaMail, SSL, and Access Restriction **Exam2**
15	More Security Skills and Putting It All Together!

Late Deliverables: Assignments need to be submitted **in class**, by the end of class time, as per the due date published in the ***Course Calendar***. To receive full credit, assignment deliverables must be successfully submitted by the due date. **Late assignments will be assessed a 20% penalty, above and beyond the standard grade evaluation.** Assignments later than one week will not be graded. ==**Assignments due on the last week of class have *no* late allowance.**==

UNIVERSITY/POLICIES

UNIVERSITY ATTENDANCE POLICY

Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid written excuse. Consideration will also be given to students whose dependent children experience serious illness.

ACADEMIC HONOR POLICY

The Florida State University Academic Honor Policy outlines the University s expectations for the integrity of students academic work, the procedures for resolving alleged violations

of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to . . . be honest and truthful and . . . [to] strive for personal and institutional integrity at Florida State University. (Florida State University Academic Honor Policy, found at http://fda.fsu.edu/Academics/Academic-Honor-Policy

ACADEMIC SUCCESS

Your academic success is a top priority for Florida State University. University resources to help you succeed include tutoring centers, computer labs, counseling and health services, and services for designated groups, such as veterans and students with disabilities. The following information is not exhaustive, so please check with your advisor or the Dean of Students office to learn more.

AMERICANS WITH DISABILITIES ACT

Students with disabilities needing academic accommodation should:
(1) register with and provide documentation to the Office of Accessibility Services; and
(2) request a letter from the Office of Accessibility Services to be sent to the instructor indicating the need for accommodation and what type; and
(3) meet (in person, via phone, email, skype, zoom, etc...) with each instructor to whom a letter of accommodation was sent to review approved accommodations. This syllabus and other class materials are available in alternative format upon request. For the latest version of this statement and more information about services available to FSU students with disabilities, contact the:
Office of Accessibility Services
874 Traditions Way
108 Student Services Building
Florida State University Tallahassee, FL 32306-4167
(850) 644-9566 (voice)
(850) 644-8504 (TDD)
oas@fsu.edu
https://dsst.fsu.edu/oas

CONFIDENTIAL CAMPUS RESOURCES

Various centers and programs are available to assist students with navigating stressors that might impact academic success. These include the following: Victim Advocate Program University Center A, Room 4100, (850) 644-7161, Available 24/7/365, Office Hours: M-F 8-5 https://dsst.fsu.edu/vap, Counseling & Psychological Services Askew Student Life Center, 2ndFloor, 942 Learning Way (850) 644-8255 https://counseling.fsu.edu/, University Health Services Health and Wellness Center (850) 644-6230 https://uhs.fsu.edu

FREE TUTORING FROM FSU

On-campus tutoring and writing assistance is available for many courses at Florida State University. For more information, visit the Academic Center for Excellence (ACE) Tutoring Services comprehensive list of on-campus tutoring options see http://ace.fsu.edu/tutoring or contacttutor@fsu.edu. High-quality tutoring is available by appointment and on a walk-in basis. These services are offered by tutors trained to encourage the highest level of individual academic success while upholding personal academic integrity.

SYLLABUS CHANGE POLICY

"Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice."

CLASSES SUBJECT TO HB233 RECORDING

In this class, consistent with state law and university policy, students are permitted to make recordings of class lectures for personal use only. As noted, sharing, posting, or publishing classroom recordings may subject you to honor code violations and legal penalties associated with theft of intellectual property and violations of other state law. Moreover, students and educators have expressed concern that recording classroom activities may negatively impact the learning experience for others, especially in classes that involve questions, discussion, or participation. To protect a learning environment in which everyone feels free to experiment with ideas, we ask you refrain from recording in ways that could make others feel reluctant to ask questions, explore new ideas, or otherwise participate in class. Students must monitor their recording so that they do not include participation by other students without permission. Students with disabilities will continue to have appropriate accommodations for recordings as established by the Office of Accessibility Services.

SCHOOL OR DISCIPLINARY POLICIES

<u>**Copyright Statement**</u>

Some of the materials in this course are possibly copyrighted. They are intended for use only by students registered and enrolled in this course and only for instructional activities associated with, and for the duration of, the course. They may not be retained in another medium or disseminated further. They are provided in compliance with the provisions of the *Technology, Education, And Copyright Harmonization* (TEACH) Act (refer to the 3/7/2001 TEACH Act at www.copyright.gov/legislation/archive/).

<u>**Sexual Harassment Policy**</u>

It is the policy of the University that its employees and students neither commit nor condone sexual harassment in any form.
http://registrar.fsu.edu/bulletin/grad/info/university_notices.htm

<u>**iSchool Hardware and Software Requirements**</u>

A list of all hardware and software requirements for students participating in the School of Information (iSchool) courses can be found at the following location:
http://ischool.cci.fsu.edu/academics/online/requirements/

<u>**Student Eligibility for an Incomplete Grade**</u>

Incomplete ("I") grades will not be assigned, except in the case of exceptional unforeseen circumstances that occur within the last three weeks of the semester and your work has otherwise been satisfactory (C average).