

## IFSC 3300 Internet Applications – Sample Syllabus

**Course Description:** Prerequisite: IFSC 1310 or equivalent, or consent of Instructor. A hands-on course focusing on the technologies and concepts for creating dynamic and interactive web sites with a special emphasis on client-side technologies. Topics will cover techniques such as how to build efficient and dynamic interactive user interfaces, how to interface with data using standardized, portable formats, how to store/validate data and how to make data more accessible to other applications. Three hours lecture. Three credit hours.

**Course Objectives:** By the end of this course,

1. Students will have gained experience with one or more leading tools (e.g., Flash or ActionScript) so they can create dynamic interactive user interfaces.
2. Students will be able to apply concepts and internet development tools (e.g., JavaScript, AJAX, CGI/Perl, ColdFusion, and/or PHP) to create database driven web applications.
3. Students will know how to use SQL to pull data from a database and to insert and modify data in a database.
4. Students will know the basics of XML so they can store and validate data in other formats like JSON and to make data more accessible to other applications following SOAP and REST protocols.
5. Students will be equipped with optimization strategies to increase web page responsiveness through data flow reduction between clients and web/data servers.

**Course Text Book:** Title: Internet & World Wide Web How to Program, 4/e by Harvey M. Deitel and Paul J. Deitel (2008).

Note: Time spent in weeks on each topic is an estimate. It is subject to change by the instructor depending on the needs of the students.

Week	Course Topics to be Covered
<b>1-2</b>	<p><b>The amount of review time may vary from semester to semester so this section may be shortened depending upon class needs.</b></p> <p><b>(A)</b> IFSC 1310 Review fundamental dynamic HTML to make web pages more interactive.</p> <p><b>(B)</b> IFSC 1310 Review the use of Dreamweaver for more efficient web design and development.</p> <p><b>(C)</b> IFSC 1310 Review HTML, Cascading Style Sheets, and Simple JavaScript to design web pages.</p>
<b>3-6</b>	<p><b>(D)</b> Java Scripting Topics: Instruction on how JavaScript can be used for adding interactivity to Web Content including coverage of frames, cookies, objects, text strings, and a brief history explanation.</p>
<b>7-8</b>	<p><b>(E)</b> XML Topics: Viewing and Understanding XML, Creating a Basic Document, Building DTDs and Checking Documents, Entities, The Document Object Model, CSS and XSL Style Sheets, response message formats: JSON. Web service protocols: SOAP, REST</p>
<b>9-10</b>	<p><b>(F)</b> Databases and MYSQL Topics: Intro to basic Database and SQL concepts, Filtering Data, Calculations and Functions, Summarizing Data, Groups and Queries, Joins, Data and Tables, Views and Stored Procedures, Transaction Processing and Cursors, Advanced SQL Functions</p>
<b>11-12</b>	<p><b>(G)</b> Ajax Topics: History and Revival of AJAX, The XMLHttpRequest Object, N-</p>

	Tier and AJAX, Rich Internet Applications, CSS and the DOM, AJAX Frameworks, Understanding an AJAX Library, AJAX and Web Services, Tagging with AJAX, Cloning Google Suggest, User Controls and AJAX.NET, AJAX and Mapping, AJAX and Web Parts, AJAX and ASP.NET Security, Performance, Debugging your Application, AJAX and Site Testing, AJAX Usability, Atlas
<b>13-14</b>	<b>(H)</b> Using Graphics for Advanced Interactivity: Using the interface and importing graphics, Drawing, Painting and Using the Library, Creating Animation, Using Shape Tween and Timeline Effects, Using Sound and Layers, Adding Symbol and Buttons, ActionScript, Behaviors, and Publishing (HTML5 or SVG or Flash will be used to demonstrate)
<b>15</b>	Optional Topics such as PHP, CGI/PERL, ColdFusion, and Microsoft Web Development Tools will be presented as Time/Student Interests Permit. Because of the limited time, the presentation of this material will most likely be at a highly summarized/descriptive level (i.e., Awareness of what these technologies do and where to go for more information for students interested in learning more). Greater in depth coverage of these topics will be addressed in either Special Topics or Elective Courses
<b>Finals</b>	<b>Third exam covering the semester's material with a concentration on the last third of the semester.</b>

**Attendance Policy:** Professional practice demands a high level of personal commitment and involvement, and learning in this course is based in large part on the interaction that occurs between the instructor and students in the classroom. Therefore, students are expected to keep current on all required chapter readings, attend every class meeting, participate actively in labs and any group discussions, and be fully engage in learning activities such as assignments and exams.

**Project/Assignment Policy:** To help reinforce the programming concepts and techniques, there will be weekly assignments to complete. Instructions for each weekly programming assignment will be posted on the course website along with due dates. In addition, students will work on a term project due at the end of the semester showcasing their ability to design and develop a professional, interactive, data drive web application.

**Exam Policy:** Exams will be used to test your knowledge of the mechanics and basic concepts of the course. Exams will consist of questions that test your knowledge of web development concepts (true or false, multiple choice, and essay) as well as programming skills (interpreting program code, writing program code, and designing program logic).

**Grading Policy:** Grades will be based on your performance on the in class exams and weekly programming assignments. Exams will make up 35% of your grade, homework assignments will be worth 35 of your grade with a term project accounting for the remaining 30%. The grading scale will be based on the following: A (90 to 100%), B (80 to 89%), C (70 to 79%), D (60 to 69%), and F (Below 60%).

**Inclement Weather Policy:** When Little Rock Public Schools are closed, UALR is closed. The only exception is during Finals week. During that time period it will be up to the Chancellor to make the decision as to whether or not to close UALR.

**Disability Policy:** It is the policy of the University of Arkansas at Little Rock to create inclusive learning environments. If there are aspects of the instruction or design of this course that result in barriers to your inclusion or to accurate assessment of achievement—such as time-limited exams, inaccessible web content, or the use of non-captioned videos—please notify the instructor

as soon as possible. Students are also welcome to contact the Disability Resource Center, telephone 501-569-3143 (v/tty). For more information, visit the DRC website at <http://ualr.edu/disability/>.

**Civility Policy:** Civility is the art of treating others, as well as ourselves, with respect, dignity, and care. Civility is apparent when we are sensitive to the impact that our communications, practices, and behaviors have on others, and when we acknowledge each person's self-worth and unique contributions to the community as a whole. Individuals who repeatedly disrupt the civility of the classroom learning experience will be subject to the classroom disruption policy described at <http://ualr.edu/deanofstudents/>.

**Academic Integrity Policy:** Academic dishonesty cannot be condoned or tolerated in the university community. Such behavior is considered an academic offense and is subject to grade penalty and/or disciplinary action. To find out more about academic offenses, please consult the website: <http://ualr.edu/deanofstudents/>.