Digital Communication

Web Publishing Specialization

Advanced Web Programming • INEW 2334
Spring 2012 • CRN 82861
West Loop Center, Room 136 • Mon/Wed, 11:30 a.m. – 1:20 p.m.
3 Semester Credit Hours *(2 lecture, 4 lab)* • 96 hours *(32 lecture, 32 lab, 32 Web enhancement)* • 16 weeks
Instructor: Paul Roberts • Telephone: 713.718.7892 • Email: paul.roberts@hccs.edu *(not for assignments)*
Email for assignments submission: roberts.hccs@yahoo.com
Class Web site: https://hccs1.mrooms3.net/
Digital Communication Department Web site: http://swc2.hccs.edu/digicom/

Office Location and Hours

Office: West Loop Room 139A
Office Hours: Mon–Thu, 9:00–9:30 and 1:30–2:00, or by appointment

Your performance in this class is important to me. Please communicate with me concerning problems you are experiencing in the course before your grade suffers. I am available to discuss your concerns and other course matters.

Course Information and Description

Course Semester Credit Hours: 3 credit hours *(2 lecture, 4 lab)*
Total Course Contact Hours: 96
Course Length: 16 weeks
Type of Instruction: Lecture/Lab

Description:
Web programming using industry-standard languages and data stores.

- *Frequent Requisites:* GUST 0341 (7th -9th Grade Reading), MATH 0306 (Basic Math Pre-Algebra), ENGL 0300 or ENGL 0347
- *Co-requisites:* ARTC 1325, ARTC 1305 and IMED 1316

Program Learning Outcomes

- Demonstrate ability to select and apply industry standard software in design.
- Design and demonstrate use of software and techniques in Digital Communication's practical applications.
- Develop a portfolio of work that demonstrates proficiency in skills for employment.
- Present a portfolio of work that demonstrates proficiency in skills for employment.

Student Learning Outcomes

- Design, code, and implement a dynamic website.
- Develop connectivity between data store and website.
- Incorporate validation for individual XML markup vocabularies.
- Demonstrate effective time management.

Learning Objectives

Design, code, and implement a dynamic website.

- Develop well-formed XML source file
- Combine XML vocabularies using namespaces

Develop connectivity between data store and website.

- Connect website to XML data store using XSLT templates

Incorporate validation for individual XML markup vocabularies.

- Build validation rules for XML source files using DTD or XSD document definitions

Demonstrate effective time management.

- Develop and follow timeline for completing each component of an XML-based web application

Secretary's Commission on Achieving Necessary Skills (SCANS)

The Secretary's Commission on Achieving Necessary Skills (SCANS) from the U.S. Department of Labor examined the demands of the workplace and whether young people are capable of meeting those demands.

SCANS research verifies that what we call workplace know-how defines effective job performances today. This know-how has two elements: competencies and foundations. These requirements are essential preparation for all students, whether they go directly to work or plan further education.

SCANS workplace competencies and foundation skills have been integrated into *Advanced Web Programming (INEW 2334)*. The following SCANS items are covered in this course:

Design, code, and implement a dynamic website.

- Foundation Skills: Basic — Reading
- Foundation Skills: Basic — Writing
- Foundation Skills: Basic — Speaking
- Foundation Skills: Basic — Listening
- Foundation Skills: Basic — Mathematics
- Foundation Skills: Thinking — Creative
- Foundation Skills: Thinking — Seeing with the mind's eye
- Foundation Skills: Interpersonal — Teaches others
- Foundation Skills: Interpersonal — Works with different cultures
- Foundation Skills: Personal Qualities — Sociability
- Workplace Competencies: Information — Acquires & Evaluates
- Workplace Competencies: Information — Organizes & Maintains
- Workplace Competencies: Information — Interprets & Communicates
- Workplace Competencies: Information — Uses Computers to Process

Develop connectivity between data store and website.

- Foundation Skills: Thinking — Problem solving
- Foundation Skills: Thinking — Reasoning
- Workplace Competencies: Systems — Understand systems
- Workplace Competencies: Systems — Monitors & Corrects Performance
- Workplace Competencies: Systems — Improves & Designs Systems
- Workplace Competencies: Technology — Selects Technology
- Workplace Competencies: Technology — Applies Technology to Task
- Workplace Competencies: Technology — Maintains & Troubleshoots

Incorporate validation for individual XML markup vocabularies.

- Foundation Skills: Personal Qualities — Responsibility
- Foundation Skills: Thinking — Decision making

Demonstrate effective time management.

- Foundation Skills: Personal Qualities — Integrity
- Foundation Skills: Personal Qualities — Self-Esteem
- Foundation Skills: Personal Qualities — Self-management
- Workplace Competencies: Resources — Allocates Materials & Facility Resources
- Workplace Competencies: Resources — Allocates time;
- Workplace Competencies: Resources — Allocates money

Instructional Methods

- Hybrid (50% or more)
- Web-enhanced (49% or less)
- Face to Face

As your instructor, I regard your success as my success. I am responsible for presenting skills in XML and its related standards to you in lecture and demonstration. I deploy classroom demonstrations to the Internet so you can study the code and experiment with it.

Part of the learning process comes after demonstrations in the form of guided practice. To assist you in learning this technology, the textbook features detailed tutorials. Students who complete the tutorials usually do well in the course while those who skip these exercises fail to understand the requirements for the individual midterm and final projects. Each tutorial has detailed instructions and an assessment rubric to guide you.

You will find the assigned tutorial lessons and rubrics at Eagle Online. Also a discussion board is available at Eagle Online for you to pick each other's minds for answers to problems you encounter. Check it out. You might find answers to your questions.

Once you have worked through the guided practice, you will be prepared to apply those skills to your individual projects. Those projects should be something of a professional nature that interests you. Some students have asked that I provide a topic for them. I gladly have done so, but nobody has ever taken me up on my assigned topic. If you are interested in finding out why, ask me to provide you with a project topic.

As with the tutorials, you may use the rubric associated with each of these assignments as a guideline. Use the rubrics and fulfill all listed requirements to help you control the grade you earn. Again, you can use the discussion board to help each other solve problems with your projects.

These course practices are in place to assist you with your success. Take advantage of them to help get you on track of developing Web publishing skills that will serve you well not only in subsequent courses, but in your career.

I am available as your mentor. Please do not hesitate to ask for help in understanding concepts that we cover and in learning how to find solutions on your own. It is a matter of practice — lots of it.

I wish you success.

Student Assignments

The State of Texas requires the following lists, even though they do not make clear sense. They are for the convenience of educrats and state assessors. A discussion of assignments specific to this class follows, and it should be meaningful. Look for the asterisk (*) for the information you need. You can ignore what precedes it.

Design, code, and implement a dynamic website.

- Discussions
- Projects
- Lab Exercises
- Homework Exercises
- Presentations
- Portfolios

Develop connectivity between data store and website.

- Projects
- Discussions
- Lab Exercises
- Homework Exercises

Incorporate validation for individual XML markup vocabularies.

- Discussions
- Projects
- Lab Exercises
- Homework Exercises

Demonstrate effective time management.

- Projects
- Lab Exercises
- Homework Exercises

*Assignments must be submitted to the instructor on time as specified on the syllabus or in class. Because you are developing workforce skills, you must submit your assignments on time. Late assignments will receive a grade deduction of one letter grade for each class day they are late. No late final projects will be accepted under any circumstances. Make a note of the due date and time and pace yourself so you complete it on time. No make-up assignments or extra credit work will be available.

Submission of Projects for Grading

Case problems, midterm and final projects must be loaded to your server when submitted. Also, zip all project files (and only project files with nothing extra) and attach the zipped folder to the message notifying the instructor that you have completed the work. The notification shall include a professionally written and courteous email message to the instructor with your name, project designation, due date and the last four digits of your student ID number. Following is the email address for submitting assignments:

roberts.hccs@yahoo.com

Give the exact URL, including the complete file name. If you do not submit notification that the assignment is ready, the instructor will assign a zero grade. You must submit a notice in order to receive credit for your work.

Note: The above email address is for submitting assignments only. If you have a concern, you may talk to me face-to-face, leave a message on my voice mail, or post it to the class message board at Eagle Online.

To repeat, under no circumstances will extra credit be given.

Case Problems

Each of nine case problem projects comes from the specified tutorial in the textbook and has an accompanying rubric that outlines how it will be graded. Each assignment and rubric is available via Eagle Online and provides maximum points you can earn. Use the rubric as a checklist to guide you in completing the projects. The total

points earned in all nine exercises are summed then converted to a percentage score. That score comprises 15 percent of the final grade.

Midterm Project

Your midterm assignment is to build a well-formed XML file and validate it with and an accompanying DTD file. You must do this with a text editor and without the help of Dreamweaver or any other WYSIWYG editor. You must use a simple text editor only. The page must include the features noted on the Web Site Evaluation form that you will find at the class Web site. It is suggested that you download the form and use it as a checklist in completing your midterm project.

You may use any topic of a professional nature you choose. This work is not for a display of your personal life. However, it may exhibit your professional skills, talents and accomplishments. You may also do your work for an existing or fictitious business. Make your topic something that is of interest and use to you.

Your work must contain at least 10 instances of element clusters, and each cluster must include at least five elements. At least one element in each cluster must contain significant informational detail. In addition, write an XSL with accompanying CSS that will give the XML file an aesthetic presentation in Internet Explorer. The XSL must include the use of at least one Boolean statement, and it must sort the XML data by a minimum of one criterion.

The project is due **March 7, 2012.**

Final Project

Your final assignment must include the features noted on the Web Site Evaluation form that you will find at the class Web site. It is suggested that you download that form and use it as a checklist in completing your final project. You must do the project with a text editor and without the help of Dreamweaver or any other WYSIWYG editor. You must use a simple text editor only.

You will use XSLT to accomplish minimally the following two implementations of the XML code you developed for your midterm project:

- Provide an XSL home page that navigates to the various presentations of information found in the XML file.
- Provide at least three XSL presentations from the XML code beyond the home page. Each presentation must have a link to the home page as well as to the other pages.
- Use XMLDom to extract information from the XML input file and incorporate it into the XSL style sheet.

NOTE: Your project must be loaded and operational on the DigiCom server. No other server will be allowed for submitting the project. As a safety measure, be sure you can present it from a local drive in the event the server cannot be accessed. When you present the project, be prepared to do the following:

- Explain what was involved in the development of the Web site.
- Explain any problems you encountered with the project.
- Explain how you solved those problems.
- Explain five things you learned about the Internet, HTML and/or Web site development from doing this project.

No late final projects will be accepted. Anyone attempting to turn in projects after deadline will receive an automatic zero. No exceptions. You may obtain your project evaluation online.

The project is due **May 2, 2012.**

A word about earning an A grade: If you complete only the above requirements, your grade will be a B. It is essential that all of the requirements are met. In order for the grade to go to an A, you must include an aesthetically pleasing project. This is where your artistic design and portfolio quality will receive credit. If you have any questions regarding this, it is your responsibility to ask the instructor.

Student Assessments

The state makes specific requirements here also — strictly for its convenience. We must humor it with this nonsense because the legislature passed laws under the leadership of Gov. Rick Perry. They think this makes things easier — for the educrats. So here is the mandated content:

Design, code, and implement a dynamic website.

- Various assigned readings from textbooks
- In-class discussions

Develop connectivity between data store and website.

- In-class discussions
- Group and/or individual projects

Incorporate validation for individual XML markup vocabularies.

- In-class discussions
- Group and/or individual projects

Demonstrate effective time management.

- Presentations
- Group and/or individual projects

The foregoing is meaningless, but I have a means of assessing how those outcomes will be accomplished. The following table delineates these outcomes and corresponding assessments.

As you have seen, the course has a clearly outlined set of learning outcomes. Along with those outcomes, I have a means of assessing how those outcomes will be accomplished. The following table delineates these outcomes and corresponding assessments.

Outcome	Assessment
Use language(s) or other interactive elements to design, code, and implement a dynamic Web site.	Develop XML code along with its validation file and accompanying extensible style sheets (XSL), which include the use of the students' XML markup, DTD or XSD language, XPath language and XSL variables and functions. These features work together to deploy dynamic functionality.
Incorporate validation for individual XML markup languages.	Build governing rules for XML markup using either a Document Type Definition using the DTD language in an external file, or a Schema using the Extensible Schema language in a separate document. XML files must follow rules of the DTD or Schema to be valid.
Demonstrate connectivity between data store and Web site.	Utilize the XML file as the data store that serves information to the Web site through the files that employ XSL and XPath languages. Also the use of the Document Object Model (DOM) might be used to upgrade the functional features of the project.

Outcome	Assessment
Demonstrate effective time management.	Follow a timeline to complete each step of the Web application by the deadline. This includes the development of the XML code, building its DTD or Schema (*XSD) file, and designing the functionality and appearance of the Web site in the necessary XSL files.

Instructor Requirements

As your instructor, it is my responsibility to do the following:

- Provide the grading scale and detailed grading formula explain how student grades are calculated.
- Facilitate an effective learning environment through class lectures, demonstrations and lab opportunities.
- Describe projects and assignments.
- Inform students of policies such as attendance, withdrawal, tardiness and make up assignment.
- Provide course outline and class calendar, which will include a description and due dates of projects and assignments.
- Arrange time to meet with individual students before and after class as needed.

To be successful in this class, it is your responsibility to do the following:

- Attend class and participate in class discussion and activities.
- Read and comprehend the textbook.
- Complete required assignments.
- Ask for help where you have questions or problems.
- Visit Eagle Online regularly to obtain handouts and assignments.
- Participate in discussions at Eagle Online.
- Keep the syllabus handy for reference when questions arise about course policies, assignments, deadlines, etc.

Program General Requirements and Objectives

- Complete and comprehend the objectives and technologies involved in all graded assignments.
- Demonstrate the ability to apply creative thinking and problem solving to all class projects and assignments.
- Complete all reading assignments pertaining to the subject matter of the course.
- Attend class regularly, missing no more than 12.5% of instruction and lab time (12 hours)
- Arrive at class promptly and be prepared with necessary books, storage media, assignments, and anything else required.
- Exhibit safe and courteous lab habits.
- Develop and share knowledge and information with fellow students.
- Participate in keeping labs clean and organized; shutting down computers when finished; abiding by lab rules; showing respect for instructors, fellow students and lab assistants.
- Participate in class discussions and critiques.
- Demonstrate the ability to communicate in a clear, coherent manner.
- Turn in all assignment on time and in the manner required by the instructor.
- Demonstrate the ability to use computer-based technology and software applications as it applies to be given class.
- Understand and be proficient in computer file management, including saving and retrieving files.
- When possible, demonstrate the ability to use and understand both Macintosh and Windows operating systems.
- Demonstrate knowledge and the ability to use applicable peripherals and storage devices.
- Develop a portfolio that illustrates concepts, techniques, and programs used in solving class assignment, including a written statement describing project concepts and processes.

- Demonstrate ability and creativity in using computer-based technology in communicating, solving problems and acquiring information.
- Accept responsibility for personal understanding of course requirements and degree plan.

HCC Grading Scale

These letter grades have corresponding percentage scores. The letter grades correspond to the percentage grades as follows:

A = 90–100	4 points per semester hour
B = 80–89	3 points per semester hour
C = 70–79	2 points per semester hour
D = 60–69	1 points per semester hour
F = 0–59	0 points per semester hour
FX (Failure due to non-attendance)	0 points per semester hour
IP (In Progress)	0 points per semester hour
W (Withdrawn)	0 points per semester hour
I (Incomplete)	0 points per semester hour
AUD (Audit)	0 points per semester hour

IP (In Progress) is given only in certain developmental courses. The student must re-enroll to receive credit.
COM (Completed) is given in non-credit and continuing education courses.
To compute grade point average (GPA), divide the total grade points by the total number of semester hours attempted.
The grades "IP," "COM" and "I" do not affect GPA.

Instructor Grading Criteria

Each assignment has a corresponding rubric available to guide you. I urge you to use the rubric. Your work will be evaluated according to the following criteria:

- *Adherence to the assignment:* Although you may go beyond the demands of the assignment, you must meet the outlined requirements. If the assignment is not clear to you, it is your responsibility to ask for clarifications before doing it.
- *Adherence to deadline:* Deadlines in the publishing field are essential to success and are just plain good business. While flexibility with grade demerits is possible on work through the semester, deadlines on final assignments and exams are not flexible. Allowing you to extend a deadline at the end of the semester holds up processes beyond the instructor's control. That shall not happen under any circumstance. Learn to meet deadlines throughout the semester rather than training yourself to push beyond the limits.
- *Appropriateness:* Follow the assignment guidelines and matters of good taste.
- *Level of difficulty:* More sophisticated work may receive higher scores.
- *Layout:* Consider balance of elements, use of white space, skillful use of fonts, sizes and style.
- *Quality of Execution:* Strive for excellence. All work should be an attempt at portfolio quality. Only work deemed by the instructor to be of portfolio quality will receive an A grade.

Using the above criteria, your work will be assessed on five levels:

A Exceptional *(This means you have gone beyond the requirements and have reached portfolio quality.)*
B Excellent *(This means you have met the requirements.)*
C Acceptable *(This means your work is average and needs improvement.)*
D Not good enough *(Although it is passing, it shows a lack of interest in developing workforce skills.)*
F Fail *(Why did you bother?)*

You will be able to find your final grade by going to the HCCS website at http://www.hccs.edu/. The course grade will be based on the following:

Participation ..... 10 percent
Case Problems..... 15 percent
Midterm Project ..... 30 percent
Final Project ..... 45 percent

Instructional Materials

Required Textbook and Materials

- Patrick Carey. *New Perspectives on XML: Comprehensive*, 2nd ed. Boston, MA: Thomson Course Technology, 2007. [ISBN-13: 978-1-4188-6064-6 • ISBN-10: 1-4188-6064-6]
- Mass storage device
- One ream of laser paper

Software Used

- Web browser
- Text editor
- Basic bit-map software
- FTP client
- File compression software

HCCS Policy Statements

Access Student Services policies on its website:
http://hccs.edu/student-rights.

The following are some highlights that might be useful to you:

ADA (Students With Disabilities)

"The Disability Support Services (DSS) Office assists students with physical, learning, or emotional disabilities in developing independence and self-reliance. Services include adaptive equipment and reasonable accommodations for admissions assistance, testing, academic advising, registration, and classroom instruction. Interpreting service is provided for students who are deaf/hard of hearing and assistive technology devices are provided for students who are blind.

"HCCS is committed to compliance with the Americans with Disabilities Act (ADA) and the Rehabilitation Act of 1973 (Section 504). If you have any special needs or disabilities which may affect your ability to succeed in college classes or participate in college program/activities, please contact the DSS Office at the college you plan to attend. Upon consultation and documentation, you will be provided with reasonable accommodations. Academic accommodations will be provided only after students have properly registered for services through designated disability services staff.

"It is recommended that you contact the DSS Office at least 60 days prior to the beginning of the term. Additional procedures are outlined in the HCCS Student Handbook." (Source: Houston Community College System Catalog)

Any student with a documented disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) who needs to arrange reasonable accommodations must contact the Disability Services Office at the respective college at the beginning of each semester. Faculty are authorized to provide only the accommodations requested by the Disability Support Services Office. If you have any questions, please contact the disability counselor at your college or Donna Price at 713-718-5165. (HCCS Institutional Statement)

Students with verifiable disabilities that offer legal protection under the Americans With Disabilities Act may receive reasonable accommodations to assist in succeeding in the course. If you have a disability and wish to receive such reasonable accommodations, you must see the ADA counselor, Dr. Becky Hauri, at 713.718.7909. Without a recommendation from the DSS Office, the instructor cannot make such accommodation.

Academic Honesty

The following comes from the HCCS Student Handbook:

Students are responsible for conducting themselves with honor and integrity in fulfilling course requirements. Penalties and/or disciplinary proceedings may be initiated by College System officials against a student accused of scholastic dishonesty.

“Scholastic dishonesty” includes, but is not limited to, cheating on a test, plagiarism, and collusion.

“Cheating” on a test includes:

- Copying from another student’s test paper;
- Using materials during a test that are not authorized by the person giving the test;
- Collaborating with another student during a test without authority;
- Knowingly using, buying, selling, stealing, transporting, or soliciting in whole or part the contents of an unadministered test;
- Bribing another person to obtain a test that is to be administered.

“Plagiarism” means the appropriation of another’s work and the unacknowledged incorporation of that work in one’s own written work offered for credit.

“Collusion” means the unauthorized collaboration with another person in preparing written work offered for credit.

VIOLATIONS

Possible punishments for academic dishonesty may include a grade of “0” or “F” on the particular assignment, failure in the course, and/or recommendation for probation or dismissal from the College System. A recommendation for suspension or expulsion will be referred to the College Dean of Student Development for disciplinary disposition.

Students who wish to appeal a grade penalty should notify the instructional supervisor within 30 working days of the incident. A standing committee appointed by the College Dean of Instruction (Academic or Workforce) will convene to sustain, reduce, or reverse the grade penalty. The committee will be composed of two students, two faculty members, and one instructional administrator. A majority vote will decide the grade appeal and is final.

Student Attendance

The HCCS Catalog states, “A student may be dropped from a course for excessive absences after the student has accumulated absences in excess of 12.5% of the hours of instruction (including lecture and laboratory time).” That is equivalent to two weeks of class.

Attendance will be checked during the first 30 minutes of each class session. Your attendance is considered to be part of class participation and will affect your final grade. The instructor does not agree to issue administrative withdrawals for students who have excessive absences. Students with excessive absences will receive the grade earned up to the point of departure from the course. The instructor makes no distinction between excused and unexcused absences.

This policy does not discriminate on the basis of race, color, religion, national origin, citizenship, sex, sexual orientation, age, or disability.

Repeated Courses

Students who repeat a course two or more times face significant tuition/fee increases at HCC and other Texas public colleges and universities. If you are considering course withdrawal because you are not earning passing grades, confer with your instructor/counselor as early as possible about your study habits, reading and writing homework, test-taking skills, attendance, course participation, and opportunities for tutoring or other assistance that might be available.

Course Withdrawals

The deadline to drop classes is 4:30 p.m. March 29.

The 2007 legislative session passed a law that limits the number of withdrawal (W grade) a students may have to six classes over the course of their entire academic career. This policy is effective for students entering higher education for the first time in Fall 2007 and subsequent terms. Withdrawals accumulated at any other Texas public higher education institution count toward the six-course total.

There are a number of permissible exceptions to the six course limit, such as personal medical emergency, emergency needs of family members, work schedules, military duty, and other exceptions as approved by the college.

Policies and procedures for implementation of this legislation are being developed and will be published as soon as they are available.

This statute applies to all Texas public colleges and universities. Therefore, HCC students affected by this statute, who have attended or plan to attend another institution of higher education, should become familiar with that institution's policies on dropping classes.

Course Requirements

- *Build a properly developed and well-formed XML file*
- *Write a schema (DTD or XSD) to validate the XML file.*
- *Build Extensible Style Language (XSL) Transformation with an accompanying CSS for visual appeal. Both will use the XML as the backend to pull specified information for display.*
- *Use XMLDOM to query XML file and render the results in the style sheet (XSL).*

Course / Lab Policies

- No handwritten work will be accepted.
- Work turned in past the deadline will receive a failing grade.
- No make-up tests or classroom exercises will be given.
- Information covered in class will not be repeated for tardy or absent students.
- Plagiarism is inexcusable and will result in an automatic F for the course.
- Lab time provided during class is for this course only. Students remaining for lab must use the time for this course. Those doing other work will be asked to leave.
- No software, hardware, or manuals may be removed from the lab. Software and manuals may not be copied. Lab rules are to be strictly followed. Failure to comply with these rules will mean expulsion from both class and lab.
- No food or drink is allowed in the labs for the protection of the equipment.

- Only those currently registered for courses are allowed to use the HCC computer labs. No children, spouses, parents or friends are allowed in the labs. Children especially are not allowed on campus at any time. This is college policy and there are no exceptions.
- Students are required to sign-in and carry their student ID or paid receipt when they are in an open lab. If you are asked to show your ID or receipt to a lab aide and cannot do so, you may not be allowed to remain in the lab.
- No outside software is allowed on HCC computers.
- Open labs are for students to work on school work only. If you have outside work to do, numerous commercial centers are located throughout the city where computer time is available for a fee. Students working on projects other than those assigned for class work will be asked to leave.
- Computers with a scanner attached are reserved for scanning only.
- Students may not change mice or connect peripherals to any computer.
- We expect patrons of the lab to conduct themselves in a professional manner. Those who cannot do so will be asked to leave. When asked to leave, students must do so without argument. This is especially true at closing time.
- Silence cell phones and pagers while in class and lab. Interrupting a class for your telephone call is extremely rude and may be treated in like manner. If you must talk on the phone, please leave the classroom before answering a call or beginning a conversation.
- The use of voice recording devices in the lab is permitted only with the written recommendation from the ADA counselor as a reasonable accommodation intended to assist a student with disabilities to succeed in the course. Use of voice recording devices without such documentation is strictly prohibited.
- Once each class session begins, the door will be closed and will not be opened during lectures and demonstrations. If you arrive for class after lecture/demonstration has begun, you will not be admitted. If you need to leave the room during a lecture or demonstration, you will not be re-admitted until after the lecture/demonstration is complete.

Students may find the following information in the student handbook and college catalog:

- Withdrawal Policy
- Refund Policy
- Plagiarism Policy
- Attendance Requirements
- Grading Scale

“The Houston Community College System seeks to provide equal educational opportunities without regard to race, color, religion, national origin, sex, age or handicap. This policy extends to employment, admission, and all programs and activities supported by the College.”

EGLS3 — Evaluation for Greater Learning Student Survey System

At Houston Community College, professors believe that thoughtful student feedback is necessary to improve teaching and learning. During a designated time, you will be asked to answer a short online survey of research-based questions related to instruction. The anonymous results of the survey will be made available to your professors and division chairs for continual improvement of instruction. Look for the survey as part of the Houston Community College Student System online near the end of the term.

Distance Education and/or Continuing Educations Policies

Access Distance Education on its website:
http://de.hccs.edu/Distance_Ed/DE_Home/faculty_resources/PDFs/DE_Syllabus.pdf

Access Continuing Education on its website:
http://hccs.edu/CE-student-guidelines

Course Calendar

Following is a *tentative* outline of discussion topics and class assignments for the term.

Week One — Syllabus, Carey • Tutorial 1

Topics:
Introductions
Student profile sheets
Course requirements and grading
What is XML?
Distinguishing content from format
Creating an XML vocabulary
Standard XML vocabularies
Overview of validation (DTDs and Schemas)
Writing well-formed code
Creating an XML document
Document tree
Testing documents in parsers and browsers
Parsers and browsers as parsers

Assignment: Complete Case Problem 4 (*Delton Mutual Life*) in Tutorial 1 *Creating an XML Document*. Zip your files in a Windows Zip folder and submit it for grading to the instructor via email. *Due January 23.*

Week Two — Carey • Tutorial 2

Topics:
Combining XML vocabularies
Name collision
Working with namespaces
Combining standard vocabularies
Combining XML and HTML

Assignment: Complete Case Problem 4 (*MidWest Homes*) in Tutorial 2 *Working with Namespaces*. Zip your files in a Windows Zip folder and submit it for grading to the instructor via email. *Due January 30.*

Assignment: Choose a topic for your midterm/final project. The topic must be a collection of some sort — such as a catalog of works of art, music, movies, books, plants, insects, historical battles, architecture, fishing gear, people, or the like. Write an XML file for that topic. The file must contain at least 10 instances of element clusters, and each cluster must include at least five elements. At least one element in each cluster must contain significant informational detail. Check the code in a parser to ensure that it is well formed. *Due January 30.*

Week Three — Carey • Tutorial 3–4

Topics:
Validating XML with Document Type Definitions (DTDs)
Explaining DTD
HTML and the DTD
Element Type Declarations
Attribute Declarations
Entities
Schema (XSD)

Assignment: Complete Case Problem 4 (*The Lighthouse Charitable Trust*) in Tutorial 3 *Validating an XML Document*. Zip your files in a Windows Zip folder and submit it for grading to the instructor via email. *Due February 6.*

Assignment: Using the XML file you created for your project, write a DTD to validate it. Check validation in the W3C Validation Service. The link is provided on the class Web site. *Due February 6.*

Week Four — *Carey • Tutorial 5*

Topics:
Applying CSS to XML elements
Designing the XML document for browser display

Assignment: Complete Case Problem 4 (*WebChef*) in Tutorial 5 *Working With Cascading Style Sheets*. Zip your files in a Windows Zip folder and submit it for grading to the instructor via email. *Due February 13.*

Week Five — *Carey • Tutorial 6*

Topics:
Overview of XSLT
Understanding and using XPath
Declaring the XSL document
Embedding HTML
XSL templates
Specifying information from XML file using XSLT
XSL value-of
XSL for-each
Sorting XML instances in XSL

Assignment: Complete Case Problem 4 (*Baseball Abstract*) in Tutorial 6 *Working With XSLT and XPath*. Zip your files in a Windows Zip folder and submit it for grading to the instructor via email. *Due February 22.*

Assignment: Work on your midterm project, applying the principles covered so far in the course. This includes writing well-formed XML, validating it with a DTD, writing an XSL file to display and sort the data in your XML file, and adding a CSS file to your XSL file to present elements in an aesthetically pleasing way in the Web browser. See Page 4 for additional information. *Due March 7.*

Week Six — *Carey • Tutorial 6 (Continued)*

Topics:
Using XSL Boolean statements
A look at the XSL Reference
Applying CSS to XML/DTD/XSL combination

Assignment: Work on your midterm project, applying the principles covered so far in the course. This includes writing well-formed XML, validating it with a DTD, writing an XSL file to display and sort the data in your XML file, and adding a CSS file to your XSL file to present elements in an aesthetically pleasing way in the Web browser. See Page 4 for additional information. *Due March 5.*

Week Seven

Topics:
Work on midterm projects. See the Midterm Project specifications in the Student Assignments section for information.

Week Eight — *Midterm Projects*

Topics:
Present midterm projects

Week Nine

Topics: Reviewing XPath
Understanding XSL templates
Getting multiple uses from an XML file

Assignment: Work on your final project, applying the principles covered in the course. This includes extending your midterm project to incorporate the features explained in the Final Project specification. *Due May 2.*

Week Ten *Carey • Tutorial 7*

Topics: Numbering nodes
Working with numeric functions
Working with mathematical operators
Formatting numbers
Using variables
Using parameters
Understanding recursion
Using named templates
Writing recursive templates
Working with multiple style sheets
Creating a loop

Assignment: Complete Case Problem 4 (*AutoMaze, Inc.*) in Tutorial 7 *Creating a Computational Style Sheet*. Zip your files in a Windows Zip folder and submit it for grading to the instructor via email. *Due April 4.*

Assignment: Work on your final project, applying the principles covered in the course. This includes extending your midterm project to incorporate the features explained in the Final Project specification. *Due May 2.*

Week Eleven *Carey •Tutorial 8*

Topics: Working with IDs
Working with keys
Working with multiple document sources

Assignment: Complete Case Problem 4 (*Lighthouse Charitable Trust*) in Tutorial 8 *Creating Element Groups*. Zip your files in a Windows Zip folder and submit it for grading to the instructor via email. *Due April 11.*

Assignment: Work on your final project, applying the principles covered in the course. This includes extending your midterm project to incorporate the features explained in the Final Project specification. *Due May 2.*

Week Twelve *Carey • Tutorial 9*

Topic: Data binding
Creating a data island
Binding an HTML element to a field
Binding an XML attribute
Applying a method to a recordset
Binding a table to data
Working with table pages

Assignment: Complete Case Problem 4 (*Tour Scotland, Inc.*) in Tutorial 9 *Using XML as a Data Source.* This assignment is for your practice and is not to be submitted for a grade. *Due April 18.*

Assignment: Work on your final project, applying the principles covered in the course. This includes extending your midterm project to incorporate the features explained in the Final Project specification. *Due May 2.*

Week Thirteen *Carey • Tutorial 10*

Topics: Introduction to the Document Object Model (DOM)
Creating a document object
Loading a file into the document object
Transforming a document with the Internet Explorer and Mozilla
Filtering the source document
Almost saving an XML document
A peek at AJAX (without getting into it)

Assignment: Complete Case Problem 4 (*The Jazz Warehouse*) in Tutorial 10 *Working with the Document Object Model.* This assignment is for your practice and is not to be submitted for a grade. *Due April 25.*

Assignment: Work on your final project, applying the principles covered in the course. This includes extending your midterm project to incorporate the features explained in the Final Project specification. *Due May 2.*

Week Fourteen

Topics: Work on final project

Assignment: Work on final project, applying the principles covered in the course. This includes extending your midterm project to incorporate the features explained in the Final Project specification. *Due May 2.*

Week Fifteen *Final Presentations*

Presentation of final projects at the beginning of the class session May 2. Absolutely no late assignments accepted. If your work is not complete, submit what you have done.

Finals Week *Final Project Evaluation*

Complete presentations of final projects that are due May 2. No late assignments are accepted even though presentations might not happen until this date.

Dates to Remember

January 17 ..... Classes begin – Drop/Add/Swap fee ($15) begins
January 17 – February 2 ..... 70 percent refund for classes dropped
January 18 ..... Registration ends – Last day for Drop/Add/Swap
February 3 – 8 ..... 25 percent refund for classes dropped
February 15 ..... Priority deadline for Spring completion of degree/certificate
February 20 ..... Presidents Day holiday (Classes and offices closed)
March 12 – 18 ..... Spring Break (Classes and offices closed)
March 29 ..... Last day for administrative/student withdrawals (4:30 p.m.)
April 6 – 8 ..... Spring holiday (Classes and offices closed)
April 13 ..... Veteran's advanced-pay application deadline for Summer term
April 16 ..... Deadline for Spring federal student loans
May 3..... Instruction ends
May 7..... Final examination

Acknowledgment of Syllabus / Consent Statement

Please fill in the following information and return this page to the instructor before leaving class. Also, please read the consent paragraph and check the box if you agree to allow your work to be displayed. Not checking the box implies that you do not grant your consent to display your work.

Student Name: _____

Student ID Number: _____

Student Home Phone: _____

Student Work Phone: _____

I have read and understand the contents of the course syllabus for *INEW 2334 — Advanced Web Programming*.

☐ By checking this box, I voluntarily agree to the following conditions:

- Give my consent to allow the work I do for this class to be displayed in a variety of venues, including art exhibitions, student expos, classroom demonstrations and on-line galleries.
- My work shall not use copyrighted materials without express written consent from the copyright owner.
- I shall retain the copyright on my original work.
- I require that my name be included with any public display of my work.
- I shall retain profits resulting from any cash sales of my work.
- Houston Community College may benefit non-monetarily from the public exposure of my work for promotion of its programs and accomplishments.

Student Signature: _____ .Date: _____