SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



COURSE OUTLINE

COURSE TITLE:	XML & New Technolog	jies		
CODE NO. :	CSD316	SEMESTER:	IV	
PROGRAM:	Computer Analyst Programmer			
AUTHOR:	M.VanLandeghem			
DATE: Jan 2010	PREVIOUS OUTLINE DATED: Jan 2009			
APPROVED:	"B. Punch"			
TOTAL CREDITS:	5		DATE	
PREREQUISITE(S):	CSD315 Web Program	ming		
HOURS/WEEK:	4			
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(705) 759-2554, Ext. 2681

I. COURSE DESCRIPTION:

Students will be introduced to the many standards and governing bodies affecting historical and current mark up languages.

Ultimately students will be introduced to the revolutionary, evolutionary XML and XML-related web-enabling application standards. Students will understand the XML language's intended usage, syntax, and functionality. Students will progress from creating simple XML documents, to creating components of, or complete commercial applications rendering web pages with dynamic data content and style.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, the student will demonstrate the ability to:

1. Describe the characteristics of a generalized markup language.

Potential Elements of the Performance:

- Describe the purpose and evolution of markup languages..
- Identify and explain the historical perspective of GML.
- Identify and explain the historical perspective of SGML.
- Differentiate between GML and SGML objectives.
- Understand the relationship between GML, SGML and XML

2. Evaluate the historical perspective of markup languages used on the World Wide Web

Potential Elements of the Performance:

- Understand the role of the World Wide Web Consortium (W3C)
- Describe the evolution of markup languages used on the WWW.
- Describe the role of the Web Browser in relation to markup languages used on the WWW.
- Identify and explain the historic perspective of HTML.
- Identify and explain the historic perspective of XHTML.
- Describe the similarities between HTML and XHTML.
- Describe the major differences between HTML and XHTML
- Evaluate the W3C recommendations governing XHTML
- Understand why the W3C created XML an markup language
- Understand the relationship between XHTML and XML
- 3. Create and modify simple XHTML documents.

Potential Elements of the Performance

- Create simple XHTML documents and open them in a browser.
- Read and write document type and namespace declarations.
- Add id and class attributes to an XHTML document.
- Identify the root element in an XHTML document.
- Create lists, add anchors & images to a simple XHTML document.
- Plan and create XHTML documents using div and span attributes.
- Plan and create XHTML documents using table elements.
- Plan and create XHTML forms using the XHTML Strict DTD

4. Create and use Cascading Style Sheets with XML documents.

Potential Elements of the Performance:

- Separate and apply style using Cascading Style Sheet (CSS) rules.
- Develop CSS declaration blocks, properties, values, and determine cascading order.
- Apply CSS attributes, pseudo-elements, and pseudo-classes.
- Utilize inheritance, attribute selectors, descendant selectors, and substring matching selectors to create efficient CSS.
- Incorporate CSS into web applications, including tables.
- Design and develop with CSS using absolute, relative, and fixed positioning.
- Incorporate space properties for multiple output devices.

5. Introduction to the Extensible Markup Language

Potential Elements of the Performance:

- Understand when to apply XML to web based applications.
- Develop "well-formed" XML documents as recommended by the W3C.
- Create and validate well-formed XML applications utilizing correct syntax for attributes, sub-elements, PCDATA, CDATA, processing instructions, and entities.
- Determine and incorporate namespace into XML documents.
- Read, key and edit an XML hierarchical structure and document tree.
- Model XML applications and work with an XML parser toward user-centered design and efficient application development.

6. Introduction to the Document Object Model (DOM)

Potential Elements of Performance:

- Create XML documents based on the DOM hierarchical tree structure.
- Navigate and modify XML documents using DOM.
- Prepare XML documents using DOM nodes root, children and siblings.
- Develop DOM objects to be accessed for data manipulation.
- Work with node properties and methods in simple applications.

⁷ Introduction to the Wireless Markup Language (WML)

Potential Elements of Performance

- Differentiate between web and wireless development.
- Work with WML structure and syntax to create WML applications.
- Determine appropriate tools for development and testing with WML.
- Select and develop with WAP tools from the textbook's companion website.

III. TOPICS:

- 1. Describe characteristics of a generalized markup language
- 2. Evaluate the historical perpective of markup languages used on the WWW.
- 3. Create and modify simple XML documents.
- 4. Create cascading style sheets for XML documents
- 5. Introduction to the Extensible Markup Language (XML)
- 6. Introduction to the Document Object Model (DOM)
- 7. Introduction to the Wireless Markup Language (WML)

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Textbook:

Title: New Perspectives - XML (Comprehensive) Authors: Patrick Carey Publisher: Thomson Education ISBN: 1-4188-6064-6

V. EVALUATION PROCESS/GRADING SYSTEM:

The mark for this course will be arrived at as follows:

Tests	40%
Practical Assignments	60%
Total	100%

Some minor modifications to the above percentages may be necessary. The professor reserves the right to adjust the mark up or down 5% based on attendance, participation, leadership, creativity and whether there is an improving trend.

The professor reserves the right to adjust the number of tests, practical tests and quizzes based on unforeseen circumstances. The students will be given sufficient notice to any changes and the reasons thereof.

- Successful completion of this course is greatly improved with a disciplined approach and consistent attendance to both the lab and lecture / theory classes.
- Students must complete and pass both the test and assignment portion of the course in order to pass the entire courses.
- All Assignments must be completed satisfactorily to complete the course. Late hand in penalties will be 5% per day. Assignments will not be accepted past one week late unless there are extenuating and legitimate circumstances. It is not acceptable to miss classes and / or labs without a reasonable explanation.
- There will also be a lab exercise each and every week that will be due during that lab period. In the event that it cannot be completed during lab time, you will be allowed to complete it as a homework exercise and demonstrate it the following lab with no penalty.

ATTENDANCE:

Absenteeism will affect a student's ability to succeed in this course. Absences due to medical or other unavoidable circumstances should be discussed with the professor. Students are required to be in class on time and attendance will be taken within the first five minutes of class. A missed class will result in a penalty in your marks unless you have discussed your absence with the professor as described above. The penalty depends on course hours and will be applied as follows:

Course Hours

Deduction

1% per hour
1.5% per hour
2% per hour
3% per hour

The following semester grades will be assigned to students:

Grade	Definition	Grade Point Equivalent
A+ A	90 – 100% 80 – 89%	4.00
В	70 - 79%	3.00
С	60 - 69%	2.00
D	50 – 59%	1.00
F (Fail)	49% and below	0.00
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field /clinical placement or non-graded subject area.	
U	Unsatisfactory achievement in field/clinical placement or non-graded subject area.	
Х	A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course	
NR	Grade not reported to Registrar's office.	
W	Student has withdrawn from the course without academic penalty.	

VI. Special Notes:

Course Outline Amendments:

The professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Retention of Course Outlines:

It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other postsecondary institutions.

Prior Learning Assessment:

Students who wish to apply for advance credit transfer (advanced standing) should obtain an Application for Advance Credit from the program coordinator (or the course coordinator regarding a general education transfer request) or academic assistant. Students will be required to provide an unofficial transcript and course outline related to the course in question. Please refer to the Student Academic Calendar of Events for the deadline date by which application must be made for advance standing.

Credit for prior learning will also be given upon successful completion of a challenge exam or portfolio.

Substitute course information is available in the Registrar's office.

Disability Services:

If you are a student with a disability (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your professor and/or the Disability Services office. Visit Room E1101 or call Extension 2703 so that support services can be arranged for you.

Communication:

The College considers **WebCT/LMS** as the primary channel of communication for each course. Regularly checking this software platform is critical as it will keep you directly connected with faculty and current course information. Success in this course may be directly related to your willingness to take advantage of the **Learning Management System** communication tool.

Plagiarism:

Students should refer to the definition of "academic dishonesty" in *Student Code of Conduct*. A professor/instructor may assign a sanction as defined below, or make recommendations to the Academic Chair for disposition of the matter. The professor/instructor may (i) issue a verbal reprimand, (ii) make an assignment of a lower grade with explanation, (iii) require additional academic assignments and issue a lower grade upon completion to the maximum grade "C", (iv) make an automatic assignment of a failing grade, (v) recommend to the Chair dismissal from the course with the assignment of a failing grade. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Student Portal:

The Sault College portal allows you to view all your student information in one place. **mysaultcollege** gives you personalized access to online resources seven days a week from your home or school computer. Single log-in access allows you to see your personal and financial information, timetable, grades, records of achievement, unofficial transcript, and outstanding obligations. Announcements, news, the academic calendar of events, class cancellations, your learning management system (LMS), and much more are also accessible through the student portal. Go to https://my.saultcollege.ca.

Electronic Devices in the Classroom:

Students who wish to use electronic devices in the classroom will seek permission of the faculty member before proceeding to record instruction. With the exception of issues related to accommodations of disability, the decision to approve or refuse the request is the responsibility of the faculty member. Recorded classroom instruction will be used only for personal use and will not be used for any other purpose. Recorded classroom instruction will be destroyed at the end of the course. To ensure this, the student is required to return all copies of recorded material to the faculty member by the last day of class in the semester. Where the use of an electronic device has been approved, the student agrees that materials recorded are for his/her use only, are not for distribution, and are the sole property of the College.

Attendance:

Sault College is committed to student success. There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session. It is the departmental policy that once the classroom door has been closed, the learning process has begun. Late arrivers will not be granted admission to the room.>

Tuition Default:

Students who have defaulted on the payment of tuition (tuition has not been paid in full, payments were not deferred or payment plan not honoured) as of the first week of *March* will be removed from placement and clinical activities. This may result in loss of mandatory hours or incomplete course work. Sault College will not be responsible for incomplete hours or outcomes that are not achieved or any other academic requirement not met as of the result of tuition default. Students are encouraged to communicate with Financial Services with regard to the status of their tuition prior to this deadline to ensure that their financial status does not interfere with academic progress.

Special Notes – Additional

In order to pass this course the student must obtain an overall test/quiz average of 50% or better.

Assignments must be submitted by the due date according to the specifications of the instructor. Late assignments will normally be given a mark of zero. Late assignments will only be marked at the discretion of the instructor in cases where there were extenuating circumstances. Ask for permission from your instructor to hand assignments in late before the due date

Upgrading Of Incompletes:

When a student's course work is incomplete or final grade is below 50%, there is the possibility of upgrading to a pass when a student meets all of the following criteria:

1. The student's attendance has been good.

2. An overall average of at least 45% has been achieved by semester's end.

3. The student has made reasonable efforts to participate in class and maintain the recommended schedule for assigned activities.

The nature of the upgrading requirements will be determined by the instructor and may involve re-testing and/or additional lab assignments