

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



COURSE OUTLINE

COURSE TITLE:	XML and New Technologies		
CODE NO. :	CSD316	SEMESTER:	4
PROGRAM:	Computer Programmer/ Analyst		
AUTHOR:	Bazlur Rasheed, Willem deBruyne		
DATE:	Jan 2014	PREVIOUS OUTLINE DATED:	Jan 2013
APPROVED:	"Colin Kirkwood"		Jan/14
		_____ DEAN	_____ DATE
TOTAL CREDITS:	5		
PREREQUISITE(S):			
HOURS/WEEK:	4		

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For additional information, please contact Colin Kirkwood, Dean
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I. COURSE DESCRIPTION:

The course will be divided up into three topic areas that include advance JavaScript, using the jQuery library features, and creating XML and XML-related web-enabling application standards.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. Managing State Information and SecurityPotential Elements of the Performance:

- Learn about State information.
- Save state information with hidden form fields, query strings and cookies
- Learn about security issues

2. Introduction to the Document Object ModelPotential Elements of the Performance:

- Study the HTML Document Object Model (DOM))
- Work with the Image object
- Learn how to access document elements

3. Creating Dynamic HTML (DHTML).Potential Elements of the Performance

- Study the HTML Document Object Model (DOM).
- Work with CSS positioning
- Create DHTML menus

4. Updating Web Pages with AJAX.Potential Elements of the Performance:

- Study AJAX concepts.
- Work with HTTP
- Use AJAX to request and receive server data

5. Getting started with jQuery AJAX.Potential Elements of the Performance:

- What is jQuery
- jQuery's features and benefits
- AJAX development
- History of AJAX
- JavaScript and object-oriented programming
- The BOM and DOM

6. Using jQuery with Pages and Script AJAX.Potential Elements of the Performance:

- Adding jQuery to your web pages
- Working with jQuery selectors
- Selecting elements according to hierarchy
- Manipulating HTML attributes

7. Manipulating CSS Properties with jQuery.Potential Elements of the Performance:

- Accessing CSS properties
- Using jQuery with CSS classes
- Manipulating element size and position
- Dynamic positioning

8. Creating Web Pages with AJAX Effects with jQuery.Potential Elements of the Performance:

- Using simple animation with jQuery
- Understanding callback functions
- Creating DHTML menus
- Constructing navigation menus
- Using sliding functionality
- Using fading techniques
- Understanding jQuery queue functions

9. ~~Handling Events with jQuery~~ ~~Updating Web Pages with AJAX.~~

Potential Elements of the Performance:

- Writing event handler code
- Capturing events with W3C-Compliant Browsers
- Capturing events with IE browsers
- Understanding the event propagation model
- Handling events with jQuery
- Controlling events

10. ~~XML Project/Presentation~~ ~~Updating Web Pages with AJAX.~~

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.

III. TOPICS:

- Managing State Information and Security
- Introduction to the Document Object Model
- Creating Dynamic HTML (DHTML).
- Updating Web Pages with AJAX.
- Getting started with jQuery
- Using jQuery with JavaScript
- Manipulating CSS Properties with jQuery
- Creating Animation and Visual Effects with jQuery
- Handling Events
- XML Project/Presentation

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Professor notes, JavaScript 5th ed., Don Gosselin (text from CSD212 course from previous semester)

V. EVALUATION PROCESS/GRADING SYSTEM:

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

Tests - 3	50%
Attendance & Participation	5%
Lecture Assignments	10%
<u>Lab Assignments and Presentations</u>	<u>35%</u>
	100%

Some minor modifications to the above percentages may be necessary. The professor reserves the right to adjust the mark up 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 a zero grade unless prior permission from the professor.

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
5 hrs/week (75 hrs)	1% per hour
4 hrs/week (60 hrs)	1.5% per hour
3 hrs/week (45 hrs)	2% per hour
2 hrs/week (30 hrs)	3% per hour

The following semester grades will be assigned to students:

<u>Grade</u>	<u>Definition</u>	<u>Grade Point Equivalent</u>
A+	90 – 100%	4.00
A	80 – 89%	3.00
B	70 - 79%	2.00
C	60 - 69%	1.00
D	50 – 59%	0.00
F (Fail)	49% and below	
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.	
X	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:

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.

VII. COURSE OUTLINE ADDENDUM:

The provisions contained in the addendum located on the portal form part of this course outline.