



**SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY**

**SAULT STE. MARIE, ONTARIO**

Sault College

**COURSE OUTLINE**

**COURSE TITLE:** WEB PROGRAMMING II

**CODE NO. :** MMW204 **SEMESTER:** 2

**PROGRAM:** Multi-Media and Web Design

**AUTHOR:** Fred Carella

**DATE:** Jan, 2001 **PREVIOUS OUTLINE DATED:** N/A

**APPROVED:**

	_____	_____
	DEAN	DATE

**TOTAL CREDITS:** 4

**PREREQUISITE(S):** MMW104

**HOURS/WEEK:** 4

**Copyright ©2001 The Sault College of Applied Arts & Technology**  
*Reproduction of this document by any means, in whole or in part, without prior written permission of Sault College of Applied Arts & Technology is prohibited.*  
*For additional information, please contact Kitty DeRosario,*  
*School of Trades & Technology*  
*(705) 759-2554, Ext. 642*

**I. COURSE DESCRIPTION:**

This course builds on the the fundamentals of programming developed in Web Programming I (MMW104). The primary goal is to develop an understanding of the Web from a programming perspective and to apply the students program development skills to the creation of interactive Web pages. Various languages and mechanisms will be explored to create dynamic web pages including Java, server side scripting with PHP and ASP, java scripts in web pages, CGI scripting with Perl and Python and interfacing to a simple database via a web page.

## **II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:**

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

### **1. Understand the role of Java in todays multiplatform and web centric programming enviroments and to write simple Java applets and applications.**

#### **ELEMENTS OF THE PERFORMANCE**

- Ⓞ describe the multiplatform computing enviroments found on the internet and the problem of writing programs to that environment
- Ⓞ understand GUI programming in modern multi-tasking enviroments.
- Ⓞ understand the java run time environment and the java virtual machine
- Ⓞ distinguish between java applets and applications
- Ⓞ write simple java applets and applications

### **2. Understand the role of scripting languages such as Perl and Python and write programs using those languages.**

#### **ELEMENTS OF THE PERFORMANCE**

- Ⓞ differentiate between compiled high level languages such as C and interpreted scripting languages like perl ,and python.
- Ⓞ Write programs which demonstrate the use of the following in perl and python
  - Ⓞ operators
  - Ⓞ input and output
  - Ⓞ control structures
  - Ⓞ pattern matching
  - Ⓞ lists, arrays and other data structure.

### **3. Understand the role of and write CGI programs in perl and python.**

#### **ELEMENTS OF THE PERFORMANCE**

- Ⓞ differentiate between static and dynamic web pages
- Ⓞ describe how CGI enables dynamic web pages
- Ⓞ write CGI programs in perl and python.

#### **4. Write dynamic web pages using javascript.**

##### **ELEMENTS OF THE PERFORMANCE**

- Ⓢ understand the structure of an HTML document and the javascript hierarchy
- Ⓢ write dynamic web pages that
  - Ⓢ embed javascript in a web page
  - Ⓢ provide input and output
  - Ⓢ contain functions
  - Ⓢ interact with frames
  - Ⓢ manipulate html objects
  - Ⓢ interact with forms
  - Ⓢ create on-the-fly documents in windows

#### **5. Write dynamic web pages using server side scripts.**

##### **ELEMENTS OF THE PERFORMANCE**

- Ⓢ Understand the role of server side scripts
- Ⓢ Understand PHP
  - Ⓢ syntax
  - Ⓢ data types
  - Ⓢ operators
  - Ⓢ control structures
  - Ⓢ functions
- Ⓢ write PHP programs that
  - Ⓢ interact with forms
  - Ⓢ access a database

### III. TOPICS:

1. Java and its role in networked computing environments
2. Scripting languages and their role in web programming (write CGI scripts).
3. Creating dynamic web pages using Javascript
4. Server side scripting

### IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

#### Textbook:

Instructor supplied handouts and internet resources

#### Removable hard drive:

Students will be supplied with removable hard drives containing a pre-installed Operating System and learning resources

### V. EVALUATION PROCESS/GRADING SYSTEM:

4 Written Tests @ 15% each	60%
Lab assignments/Lab attendance/Lab Quizzes	<u>40%</u>
	100%

### ELIGIBILITY FOR XGRADES/UPGRADING OF INCOMPLETES

When a student's course work is incomplete or final grade is below 60%, 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 satisfactory.
2. An overall average of at least 50% has been achieved.
3. The student has not had a failing grade in all of the theory tests taken.
4. The student has made reasonable efforts to participate in class and complete assignments.

Note: **The opportunity for an X grade is usually reserved for those with extenuating circumstances.** The nature of the upgrading requirements will be determined by the instructor and may involve one or more of the following: completion of existing labs and assignments, completion of additional assignments, re-testing on individual parts of the course or a comprehensive test on the entire course.

### ASSIGNMENTS

Required format for lab assignments will be detailed by the instructor before labs are assigned.

### 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 instructor. There will be an attendance factor included in the lab evaluation.

The following semester grades will be assigned to students in post-secondary courses:

<u>Grade</u>	<u>Definition</u>	<u>Grade Point Equivalent</u>
A+	90 - 100%	4.00
A	80 - 89%	3.75
B	70 - 79%	3.00
C	60 - 69%	2.00
R (Repeat)	59% or below	0.00
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field placement or non-graded subject areas.	
U	Unsatisfactory achievement in field placement or non-graded subject areas.	
X	A temporary grade. This is used in limited situations with extenuating circumstances giving a student additional time to complete the requirements for a course (see <i>Policies &amp; Procedures Manual – Deferred Grades and Make-up</i> ).	
NR	Grade not reported to Registrar's office. This is used to facilitate transcript preparation when, for extenuating circumstances, it has not been possible for the faculty member to report grades.	

## VI. SPECIAL NOTES:

### Special Needs:

If you are a student with special needs (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your instructor and/or the Special Needs office. Visit Room E1204 or call Extension 493, 717, or 491 so that support services can be arranged for you.

### 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.

### Plagiarism:

Students should refer to the definition of “academic dishonesty” in *Student Rights and Responsibilities*. Students who engage in “academic dishonesty” will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. 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.

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.

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

**VII. PRIOR LEARNING ASSESSMENT:**

Students who wish to apply for advanced credit in the course should consult the professor. Credit for prior learning will be given upon successful completion of a challenge exam or portfolio.

**VIII. DIRECT CREDIT TRANSFERS:**

Students who wish to apply for direct credit transfer (advanced standing) should obtain a direct credit transfer form from the Dean's secretary. Students will be required to provide a transcript and course outline related to the course in question.