SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

Sault College

COURSE OUTLINE

COURSE TITLE: Web GIS

CODE NO. : GIS 416   **SEMESTER:** W2001

PROGRAM: Geographic Information Systems Applications Specialist

AUTHOR: Dennis Paradine

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

APPROVED:

_____   _____

                        DEAN   **DATE**

TOTAL CREDITS: 5

PREREQUISITE(S): GIS 415 – Acquiring and Building Spatial Data using ARC/INFO GIS

LENGTH OF COURSE: 3 hrs/wk x 13 wks   **TOTAL CREDIT HOURS:** 60

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Course Name   Code No.

I.   COURSE DESCRIPTION:
The fastest growing part of GIS is the serving of maps on the Internet. The
Web GIS course develops student skills in Web page design,
programming, security and management. Special emphasis will be placed
on serving maps on the Internet (using ArcIMS software) and on the issues
involved in doing so.

II.   LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1.   Web Page Fundamentals

        Potential Elements of the Performance:
        •   Understand the role of graphic design in web pages
        •   Understand Internet security and privacy issues
        •   Design web page content
        •   Illustrate web pages as a marketing method

2.   Web Page Programming

        Potential Elements of the Performance:
        •   Critique software and methodology used to program web pages
        •   Use HTML code and Microsoft Front Page to create web pages
        •   Add text, graphics and special features into a web page

3.   Web GIS

        Potential Elements of the Performance:
        •   Describe the available Web GIS software packages
        •   Understand the issues involved with Web GIS
        •   Create a GIS web page using Arc/IMS

4.   Web Server Management and Configuration

        Potential Elements of the Performance:
        •   Understand how to configure a server for Web GIS
        •   Describe the importance of speed, connections and data volume
        •   Describe prevention of server and network security and hacking

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III.   TOPICS:

    1.   Web Page Fundamentals (6 hours)
- Course overview
- Graphic design and web pages
- Internet security and privacy issues
- Web page content
- Web pages as a marketing method

    2.   Web Page Programming (12 hours)
- Software and methodology used to program web pages
- Programming web pages using HTML
- Programming web pages using Microsoft Front Page
- Adding text, graphics, and special features to a web page

Assignment #1. HTML Web Page

Assignment #2. HTML and FrontPage Web Page

Practical and Theory Test #1

    3.   Web GIS (18 hours)
- Web GIS software packages available
- Issues involved with Web GIS
- Creating a GIS Web page using Arc/IMS

Assignment #3. Arc/IMS #1

Assignment #4. Arc/IMS #2

    4.   Web Server Management and Configuration (3 hours)
- Configuring a server to serve web pages on the Internet
- Speed, connections and data volume
- Server and network security and hacking

Theory and Practical Test #2

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Course Name   Code No.

IV.   REQUIRED RESOURCES/TEXTS/MATERIALS:

Carey, P. 2001. Creating Web Pages with HTML. Thomson Learning / Course Technologies

V.   EVALUATION PROCESS/GRADING SYSTEM:

Grading System:

Laboratories (4)	60%
Practical and Theory Tests (2)	40%
	100%

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

Grade	Definition	Grade Point Equivalent
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.	
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 *Policies & Procedures Manual - Deferred Grades and Make-up*).	
NR	Grade not reported to Registrar's office. This is used to facilitate transcript preparation when, for extenuating circumstances, it has been impossible for the faculty member to report grades.	

VI.   SPECIAL NOTES:

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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 post-secondary institutions.

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 instructor. Credit for prior learning will be given upon successful completion of the following:

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.