SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

Sault College

COURSE OUTLINE

COURSE TITLE: Web GIS

CODE NO. : GIS 416   **SEMESTER:** W09

PROGRAM: Geographic Information Systems Applications Specialist

AUTHOR: M.VanLandeghem

DATE: Jan 2009   **PREVIOUS OUTLINE DATED:** Jan 2008

APPROVED: "B. Punch"

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            CHAIR   DATE

TOTAL CREDITS: 5

PREREQUISITE(S):

Hours/Week 3

I.   COURSE DESCRIPTION:

The fastest growing part of GIS is distributing maps on the Internet. This
Web GIS course develops student skills in Web page design. The course
will also review basic XML commands as well as displaying maps on the
Internet using ArcIMS software. Students will all be given a basic
introduction to creating and maintaining a database over the internet.

II.   LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1 Understand basic 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 Using HTML

Potential Elements of the Performance:
- Understand the basic code to create a web page
- Using basic formatting techniques
- Add text, graphics, forms and special features into a web page
- Insert Video in a web page
- Create a basic web application using HTML
- Introduction to XML
- Uploading web pages to a server (FTP)

3   Using Application software to create Web Applications

Potential Elements of Performance

Create advanced web applications Using Share Point Designer
Create advanced web applications using Macromedia Dreamweaver,
Advanced Project Development.

4.   Web GIS/XML

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
- XML vs HTML

5.   Setup an Online Database

Potential Elements of the Performance:
- Understand theory to create a web database
- Understand how PHP and MYSQL work together
- Understand what is required to attach to a web database
- Create basic programs to Add/Delete and Find Records

III. TOPICS

1.   Web Page Fundamentals
2.   Web Page Programming HTML And Cascading Style Sheets
3   Web Page Programming Using SharePoint Designer/Macromedia Dreamweaver
4.   Using   ARCIMS
5.   Introduction to setting up and programming an online database

IV.   Required Student Resources

On Line Help and Student Resource Files
Internet Research
Lecture Notes and Printed Handouts from Instructor
Material From Instructor Web Site

V.   EVALUATION PROCESS/GRADING SYSTEM

Tentative Breakdown*:

The marks for this course will be arrived as follows:

Tests and Quizzes
- HTML /SharePoint/Dreamweaver   **20%**

Lab Assignments
- HTML Assignments   **20%**
- SharePoint/Dreamweaver   **25%**
- ArcIms/XML   **15%**

Major Project   **20%**

At least 80% attendance required in the labs and lectures.

- Students must complete and pass both the test, assignment and project portion of the course in order to pass the entire course.
- All Assignments must be completed satisfactorily to complete the course.
- Late assignments will not be accepted.
- Makeup Tests are at the discretion of the instructor and will be assigned a maximum grade of 60%.

The following semester grades will be assigned to students:

Grade	Definition	Grade Point Equivalent
A+	90 – 100%	4.00
A	80 – 89%	
B	70 - 79%	3.00
C	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.	

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.

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 the student meets all
of the following criteria:

1   The student 's attendance has been satisfactory.
2   An overall average of at least 40% has been achieved by semester's end on tests
       and practical assignments.
3   The student has maid 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.

ATTENDANCE:

Absenteeism will affect the student's ability to succeed in the course.
Absences due to medical or other unavoidable circumstances should be
discussed with the instructor. The instructor reserves the right to deduct
1% of the final mark for each class missed up to a maximum of 10%.
Poor attendance will also affect the upgrading process if a student   receives a mark
below 50%.

VI.   SPECIAL NOTES:

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.

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.

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.

The professor reserves the right to use other tools and / or techniques that may be more applicable. These other tools and / or techniques for effective communication will be discussed, identified and presented throughout the delivery of the course content

Special Notes:

- 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

VII.   **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.

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