

**SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY**

**SAULT STE. MARIE, ONTARIO**



Sault College

**COURSE OUTLINE**

**COURSE TITLE:** Research Project / Presentation I  
**CODE NO. :** GIS406 **SEMESTER:** 09F  
**PROGRAM:** Geographic Information Systems Applications Specialist  
**AUTHOR:** Heath Bishop  
**DATE:** August, 2009 **PREVIOUS OUTLINE DATED:** June, 2008

**APPROVED:**

“B. Punch”

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**CHAIR**

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**DATE**

**TOTAL CREDITS:** 4

**PREREQUISITE(S):** None

**HOURS/WEEK:** 3

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*For additional information, please contact , Brian Punch, Chair*  
*School of Natural Environment/Outdoor Studies & Technology Programs*  
*(705) 759-2554, Ext. 2681*

**I. COURSE DESCRIPTION:**

This course will introduce the student to the practical use of field equipment in a GIS environment, to presentation as a method of communication and to the design of research projects. Skills to be gained include the practical use of Global Positioning Systems, spreadsheet software, computer graphics, PowerPoint presentations, and designing research project proposals.

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

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

**1. Understand and use Global Positioning Systems**Potential Elements of the Performance:

- Explain how Global Positioning Systems work
- Capture GPS data in the field and integrate into a Geographic Information System
- Understand the process of differentially correcting GPS data
- Produce GPS-based map products

**2. Develop high-quality computer-based presentations**Potential Elements of the Performance:

- Create an advanced computer-based presentation using PowerPoint
- Use computer graphics software packages
- Recognize different graphics file formats
- Recognize good graphic presentation practice

**3. Gain experience with spreadsheet software**Potential Elements of the Performance:

- Practice data manipulation and organization using Microsoft Excel
- Gain experience using formulas
- Gain experience using macros

#### 4. Design a GIS Project

##### Potential Elements of the Performance:

- Describe the fundamentals of project management
- Place the GIS process within a project management framework
- Write a GIS project proposal, including details on the estimated costs, resources required, and time-frame
- Map geomatics processing procedures
- Present project proposals for review and suggestions

### III. TOPICS:

#### 1. Global Positioning Systems (GPS)

- GPS defined, GPS components, accuracy and error
- Differential correction of GPS data
- Field data collection and computer uploading and downloading
- Integration of GPS data into GIS

#### 2. Microsoft Excel

- Introduction to Excel
- Basic Formulas
- Advanced Formulas
- Data manipulation
- Macros

#### 3. Computer presentation applications

- Computer graphics software
- Image file sizes and formats
- Scanning and using documents and images in presentations
- Graphic design elements and principles in computer presentation
- PowerPoint presentations
- Fundamentals of an effective presentation

#### 4. GIS Project Design

- Fundamentals of GIS project management
- Designing a GIS project and mapping out GIS procedures
- Preparing a project charter and project plan
- Presenting a project proposal for review

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

Martin, P. and K. Tate. 1997. Project Management Memory Jogger. Goal/QPC. 175 pages.

#### V. EVALUATION PROCESS/GRADING SYSTEM:

Assignments (5)	50%
Presentations (2)	35%
Test	<u>15%</u>
	100%

The following semester grades will be assigned to students:

<u>Grade</u>	<u>Definition</u>	<u>Grade Point Equivalent</u>
A+	90 – 100%	
A	80 – 89%	4.00
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.

## 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, in addition to announcements, news, academic calendar of events, class cancellations, your learning management system (LMS), and much more. 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.

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 November 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.