

Course Syllabus

SIE 501 Introduction to Graduate Research

Course Description

Covers process of successful graduate research from identification of a researchable question, preparation of a thesis proposal, to completion of the research and its publication. Focus on engineering research methods for spatial information Lec 1. Cr.1

Course Goals and Objectives:

- Introduce students to conducting research
- To learn how to organize research and how to communicate research results
- Develop ability to search for and analyze pertinent literature
- Make students gain an understanding of the research field in geographic information science with its scientific outlet

Expected Outcomes:

- Understand the outcomes and output of scientific research
- Understand the difference between research and R&D
- Understand the process of developing and validating research results
- Understand the process of disseminating research results
- Understand the interdisciplinary field of geographic information science

Faculty Information

Professor Max Egenhofer
max@spatial.maine.edu

Office Hours

I am available in my office during the hour immediately following class. In addition, I am in the office most hours of the day and feel free to drop by if you have a short question or two. If you want to arrange a longer session E-mail is the simplest way to get a message through and a response.

Instructional Materials and Methods

All slides from the lectures will be made available before the class starts.

Complementary readings from

Martha David, *Scientific Papers and Presentations*, Academic Press, 2005.

Grading and Course Expectations

Grading criteria:

Literature search – 30%

Speed reading – 30%

Class participation – 40%

If you are absent due to illness or similar valid excuse, please notify me of your situation at max@spatial.maine.edu immediately prior to or after your absence.

Tentative exam schedule:

None.

Course Schedule

See the attached tentative schedule of class session topics and reading assignment due dates.

Class Policies

Attendance and class participation are expected. Forty percent of the course grade is dependent on participation in class.

Late assignments, make-up, retake and rescheduled exams, and extra credit:

A late submission of the written summary after the due date will be docked 10 percent per day and will not be accepted for credit after a week. If you miss your oral presentation due to an illness or emergency, you must send notification prior to the exam by email and special arrangements must be made with the instructor to consider your situation.

Incomplete work:

Incomplete or insufficient work may not be made up. It merely receives a low grade.

Academic honesty:

Academic honesty is expected. Plagiarism is unacceptable in this course and will result in a failing grade. “Although a writer may use other persons’ words and thoughts, they must be

acknowledged as such.” Joseph Gibaldi and Walter S. Achtert, *MLA Handbook* (Modern Language Association) 1977, p. 4.

Students with disabilities:

If you have a disability for which you may be requesting an accommodation, please contact either me or Ann Smith, Coordinator of Services for Students with Disabilities (Onward Building, 581- 2319), as early as possible in the term.

Course Schedule

Class 1

Course Introduction – objective, goals of research
Distribution of reading list

Class 2-3

Research life cycle
Getting a research-based graduate degree

Class 4

Types of research

Class 5

Publishable material

Class 6-7

Scientific outlets in geographic information science

Class 8-9

The researcher’s CV, publication list, and Web presence

Class 10-12

The graduate researcher’s thesis proposal and thesis defense

Class 13-14

Literature search
Speed reading

Class 15

Attending a research conference