Course Number: 3460:490
Course Name: Senior Seminar in Computer Science
Course Credits: 3
Schedule: Spring

Syllabus Date: March 27 2004
Prepared By: Tim O’Neil

Prerequisites:
Completion of at least 30 hours of computer science courses.

Text:
See “References”.

Bulletin Description:
Professional software development, surviving "mission impossible" projects, computer ethics, intellectual property rights (patents and copyrights) and other current topics.

Detailed Description:
The broad formal description leaves much room for the instructor to tailor the class to his/her own interests. Typically, this course studies the social impact, implications and effects of computers on society, and the responsibilities of computer professionals in directing the emerging technology. Includes examinations of reliable, risk-free technologies, systems which provide user friendly processes. Specific topics may include an overview of the history of computing, computer applications and their impact, the computing profession, and the legal and ethical responsibilities of professionals.

Course Goals:
Having successfully completed this course, students will be able to:

1. review and analyze the effects of the insertion of computer technology into society, and to anticipate the impact of that technology on people, companies and the community;
2. select from the many algorithms for the implementation of computer applications those that will not only satisfy the needs of economy but also those that will have higher factors of safety, greater sensitivity to user needs, and increased reliability;
3. use the underlying concepts of both technology and ethical behavior to realize their own potential impact on the community that they serve, and to make rational decisions regarding their responsibilities to the community.

Possible Topics:
1. Computer ethics
2. Intellectual property rights
3. Professional software development
4. Surviving “mission impossible” projects
5. Computer history
6. Computing applications and their impact on society
7. The computing profession

**Computer Usage:**
This course is "different" from most other computer science courses in that it deals with the non-technical aspects of the profession. It tends to emphasize oral and written communications. Thus computer usage is minimal if at all, although this depends on the individual instructor.

**References:**
Depends heavily on the interests of the instructor. Possible topics and appropriate texts include:

1. **Computer ethics**

2. **Professional software development**

3. **Surviving “mission impossible” projects**