

Students will

- 3 Describe the interrelatedness of contemporary issues in a global and society context with Geomatics Engineering solutions.
- 3 Communicate effectively in writing.
- 3 Convey technical material through oral presentations.
- 3 Function effectively in multidisciplinary teams

for the following courses:

EGN 1002: Fundamentals of Engineering, SUR 4670: Geomatics Engineering Design 1
SUR 4672: Geomatics Engineering Design 2

Students are required to write technical reports to be evaluated by the faculty members teaching EGN 1002. Students in the design sequence SUR 4670 and SUR 4672 will present oral and written reports to the faculty and the industry members of PAC. Students receiving unsatisfactory evaluations by the faculty and PAC members will be required to restart the sequence in the following semester.

CRITICAL THINKING (Analytical Skills, Creative Skills, Practical Skills):

Students will

- 3 Use modern engineering techniques, skills, and tools, including computer based
- 3 tools for analysis and design;
- 3 Identify, formulate and solve novel civil engineering problems;
- 3 Design and conduct scientific and engineering experiments including analysis
- 3 and interpretation of data;
- 3 Deliver engineering results that meet performance standards for cost, safety, and
- 3 quality;
- 3 Describe the ethical and professional responsibilities of the civil engineer;
- 3 Make and defend ethical judgments in keeping with professional standards

All geomatics engineering courses contain a critical thinking component. The following courses have more in depth critical thinking components:

GIS 4035 Remote Sensing of the Environment	GIS 4043 Principles of Geographic Information Systems
SUR 4536 Position with GPS w/Lab	SUR 4430 Surveying Business Practices
SUR 4403 Legal Aspects of Surveying	EGN 4413 Engineering Economics
SUR 4670 Geomatics Engineering Design 1	SUR 4672 Geomatics Engineering Design 2

The critical thinking skills that students obtain from the above group of courses will be evaluated by the faculty members who teach the design sequence SUR 4670 and SUR 4672. Again, students receiving unsatisfactory evaluations will be required to restart the sequence in the