NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY
GIS 101 – INTRODUCTION TO GEOSPATIAL TECHNOLOGY (3 CR.)

Course Description

Provides an introduction to the concepts of Geographic Information Systems (GIS), Global Positioning Systems, (GPS) and remote sension components of Geospatial Technology. Teaches the introductory concepts of geographic location and problem solving by using GIS and GPS units in demonstrating solutions to cross-curricular applications of the technology. Part I of II. Lecture 3 hours per week.

General Course Purpose

Practical survey of Geospatial Awareness and Thinking.   Provide students hands-on introduction to the fundamental concepts of Geographic Information Science (GIScience), including Geographic Information Systems (GIS), Global Positioning Systems (GPS), cartography, remote sensing, and spatial analysis. Exploration of how geospatial technologies and tools are used in addressing human and environmental issues.

Course Prerequisites/Co-requisites

Prerequisite: Basic Computer Literacy.

Course Objectives

Upon completing the course the student should be able to:

- Describe the fundamental concepts and applications of Geographic Information Science and Technology.

- Use web mapping tools to study and develop possible solutions to real world problems.

- Describe and explain the historical development of GIS and how GIS helps to solve problems of a spatial context.

- Demonstrate basic proficiency in map reading, interpretation, and design principles, including map projections and the geographic grid.

- Describe the fundamental concepts and applications of remote sensing and GPS.

- Describe and demonstrate how to access different sources of data, describe and demonstrate the process of creating data, and discuss the fundamental concepts of data quality.

Major Topics to be Included

- Spatial reasoning
- Domains of geographic information
- Data considerations
- Principles of map design
- GIS&T and society