

Dakota College at Bottineau Course Syllabus

Course Prefix/Number/Title: ENVT 255- Introduction to GIS

Number of credits: 4

Course Description: Geographic Information Systems (GIS) is a system of hardware, software, and procedures designed to support the capture, management, manipulation, analysis, modeling and display of spatially referenced data for solving complex planning and management problems. GIS applications use both spatial information (maps) and databases to perform analytical studies. This course covers underlying geographic concepts including world coordinate systems and projections, vector map topology, tiled and layered maps, standard computer map file formats, urban applications, and emphasis will be given to natural resource applications. This course also provides computer lab tutorials and case studies using the GIS software, ArcGIS 10 from Environmental Systems Research Institute (ESRI).

Pre-/Co-requisites: None

Course Objectives: Successful completion of this course enables students to:

- . Demonstrate ability to use ArcGIS 10 Software
- . Demonstrate ability to project data in the form of a map or presentation quality
- . Be able to understand and describe the range of applications of GIS
- . Discuss what a GIS is in terms of its components and functionality
- . Identify sources of spatial data
- . Plan, prepare, and carry out a GIS based investigation

Instructor: Cody Clemenson

Office: 10 Molberg

Office Hours: At Request

Email: cody.s.clemenson@dakotacollege.edu

Phone: 701-263-5772

Lecture/Lab Schedule: 5-6:45 PM M & W

Textbook(s):

- 1) Getting to Know ArcGIS 10 Desktop ISBN: 9781589482609 Software – ArcGIS 10
- 2) Geographic Information Systems Applications in Natural Resource Management. Second Edition. Michael Wing and Pete Bettinger. Oxford University Press. ISBN: 9780195426106

Course Requirements: Students are required to complete in class assignments, answer questions from the text, complete lab assignments where they develop maps and answer questions regarding GIS applications in the real world.

Grading Scale: The grading scale is listed below. Percentage Grade

90 - 100 A

80 - 89 B

70 - 79 C

60 - 69 D

< 60 F

Tentative Grade Allocation:

Homework ~500

Projects ~400

Final Exam ~100

Relationship to Campus Theme:

This course addresses the campus theme by incorporating GIS computer technologies, applied natural resource management and GPS data collection technologies that are used to develop natural resource management plans.

Classroom Policies:

Be respectful of other students, technicians, instructors, and guests. Show up for class. Be involved in classroom discussions.

Student Email Policy:

Dakota College at Bottineau is increasingly dependent upon email as an official form of communication. A student's campus-assigned email address will be the only one recognized by the campus for official mailings. The liability for missing or not acting upon important information conveyed via campus email rests with the student.

Academic Integrity:

All students are expected to adhere to the highest standards of academic integrity. Dishonesty in the classroom or laboratory and with assignments, quizzes and exams is a serious offense and is subject to disciplinary action by the instructor and college administration. For more information, refer to the Student Handbook.

Disabilities and Special Needs:

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact your instructor and the Learning Center (228-5479) as early as possible during the beginning of the semester.