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, ArcPro from Environmental Systems Research Institute (ESRI).

Pre-/Co-requisites: NA

Course Objectives:

Successful completion of this course enables students to:

. Demonstrate ability to use ArcPro 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: NA

Office Hours: NA

Phone: 701-263-5772

Email: cody.s.clemenson@dakotacollege.edu

Lecture/Lab Schedule: Monday & Wednesday 5:00-6:45PM

Textbook(s):

1) Getting to Know ArcGIS Pro 3.2 ISBN: 9781589487772
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.

Tentative Grade Allocation:
Homework ~500
Projects ~500
Final Exam ~100

Grading will be on the 100-90%= A, 89-80%= B, 79-70%=C, 69-60%= D, Less than 60%= F.

Tentative Course Outline:

You will only be allowed to be a week behind this schedule or else you will receive a 0 for the activities for that week's assignments.

Week 1
Syllabus and Introductions
Chapters 1

Week 2
Chapters 2 & 3

Week 3
Chapter 9

Week 4
Chapters 4
Map project #1

Week 5
Chapter 5

Week 6
Map Project #2
Map Project #3

Week 7
Chapters 6
Map Project #4

Week 8
Map Project #5
Presentation of Maps

Week 9
Chapter 7

Week 10
Chapter 8

Week 11
Map Project #6

Week 12
Map Project #8
Chapter 9

Week 13
Presentation of Maps

Week 14
Map project #9

Week 15
PracticeTest Map
Review

Week 16
Final Map

General Education Competency/Learning Outcome(s) OR CTE Competency/Department Learning Outcome(s): NA

Relationship to Campus Focus: NA

Classroom Policies:

This 4 credit course requires the following to build and engage a classroom community of learners:

- Be respectful of other students, technicians, instructors, and guests.
- Show up for class.
- Be involved in classroom discussions.
- Complete and submit coursework on time.
- Late work will only be excepted one week from the course outline or you will earn 0 points.
- Communicate with the instructor.
- Reading the assigned texts is the student's responsibility and is essential to success in this course.
- This academic environment is open and harassment free.

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:
According to the DCB Student Handbook, students are responsible for submitting their own work. Students who cooperate on oral or written examinations or work without authorization share the responsibility for violation of academic principles, and the students are subject to disciplinary action even when one of the students is not enrolled in the course where the violation occurred. The Code detailed in the Academic Honesty/Dishonesty section of the Student Handbook will serve as the guideline for cases where cheating, plagiarism or other academic improprieties have occurred.

Disabilities or Special Needs:
Students with disabilities or special needs (academic or otherwise) are encouraged to contact the instructor and Disability Support Services.

Title IX:
Dakota College at Bottineau (DCB) faculty are committed to helping create a safe learning environment for all students and for the College as a whole. Please be aware that all DCB employees (other than those designated as confidential resources such as advocates, counselors, clergy and healthcare providers) are required to report information about such discrimination and harassment to the College Title IX Coordinator. This means that if a student tells a faculty member about a situation of sexual harassment or sexual violence, or other related misconduct, the faculty member must share that information with the College's Title IX Coordinator. Students wishing to speak to a confidential employee who does not have this reporting responsibility can find a list of resources on the DCB Title IX webpage.

AI Student Policy:
Unless otherwise indicated in the course syllabus, or in individual instructions for course assignments, or in the absence of the express consent of the course instructor, students are not allowed to utilize generative AI to help produce any of their academic work. Any violation of this policy will be considered an act of academic dishonesty as outlined within the Dakota College Code of Student Life.

RESPONSIBILITIES

Students	• Responsible to follow the syllabus and assignment instructions regarding use of generative AI for all academic work.

	• Obtain permission of the instructor prior to the use of generative AI that is outside of the syllabus or assignment instructions. Provide appropriate rationale for how the use of generative AI will enhance the learning experience for the assignment. • In instances where generative AI is permissible, appropriately cite the generative AI program used and indicate where in the assignment it was used, in a brief submission statement.
Faculty	• Determine if the use of generative AI could enhance student learning in any assignment of project. • Clearly indicate in all course syllabi if generative AI is allowable for any academic work. • If allowable, give specific parameters for how and when generative AI may be used. • If a violation of generative AI for the individual course/syllabus is suspected, discuss the concern with the student. If violation is still suspected, inform the appropriate semester coordinator/program director.