Course Syllabus

GEOS 3044: Geographic Information Systems (GIS)
Kimbell School of Geoscience
McCoy College of Science, Mathematics, & Engineering
Fall 2024 Section 101 & 11A, TuTh 8:30-11:20AM, Room BO-105

Instructor Contact Information

Instructor: Dr. Kashif Mahmud
Office: 307H Bolin Hall
Office hours: MW 9:00-10:30AM, TuTh 12:30-1:30PM
Office phone: (940) 397-4475
E-mail: Kashif.mahmud@msutexas.edu

> This syllabus may change during the semester due to changes in course structure. Check D2L often for updates!

Teaching Instructor (TA)

Your TA is here to help you navigate this course as well. You should draw on them as resources throughout the semester. You should communicate with them regarding missed classes or assignments (while also copying me on the email). As they will be grading most assignments, grading inquiries should be directed to them as well.

Teaching Instructor 1: Elizabeth Elkins
Office hours: Tuesdays and Thursdays 11:20AM – 12:20PM, room BO-105.
Email: ecelkins0815@my.msutexas.edu

Teaching Instructor 2: Mekerie Francis
Office hours: Tuesdays and Thursdays 11:20AM – 12:20PM, room BO-105.
Email: mekerie.francis@gmail.com

Textbook & Instructional Materials (**Required**)
Discovering GIS and ArcGIS, Bradley A. Shellito, W.H. Freeman and Co. 3rd. Ed.

Office Hours:

I can meet with students 1-on-1 at my (and the student's) discretion. For 1-to-1 meetings, we can adhere to the original office hours given above or schedule a meeting time via email. If you do not wish to meet in person. You are welcome to call my office during my office hour times. We can also use Zoom to set up virtual meetings.

Communication:

Email – I will use your **D2L** email account to communicate with you. It is your responsibility to check your D2L email. When you email me you need to make sure that you are very clear in describing the question/issue. Always start by

stating your name and what class you are in. Use formal language and give it a proofread. If I can't understand your writing, I can't respond in a meaningful way. Vague emails will not receive a response.

D2L – I recommend that you download the '**Brightspace Pulse**' app on your phones so that you can be alerted anytime I post anything on D2L. If you do not download this app, you can just log into D2L often to see any news updates and new material. I will alert you about new lecture material, assignments, and exams via D2L news items.

Course Objectives
To learn the principals of geospatial science and gain a fundamental and functional understanding of ESRI ArcGIS software. Students will be able to:
• Appreciate how spatial data is sourced, visualized, manipulated, created, and managed using GIS software
• Gain a functional knowledge of ArcGIS software
• Find, manipulate, and generate spatial data from a variety of sources to solve practical geoscience questions
• Solve and prevent technical issues with geospatial data processing in ArcMap
• Create refined map products to present spatial information

Course Format
Content for this class is not delivered in the traditional lecture/lab format. Lecture and Lab are integrated into the entire class time. You will use your textbook and lecture/lab guidance to complete all class activities. Weekly lab assignments will be completed and submitted the week after with Wednesday deadline. These will come with separate guidance documents in D2L.

Course Assessment and Grading
• **Four exams** will be given this semester. Each exam mostly covers the new material presented since the previous exam. However, the earlier class materials might be useful to solve the later exam problems. All exams will be given during combined lecture/lab periods. Exams will be comprised of multiple choice, true/false, and/or practical exercises. **7.5% each of class grade, 30% total.**
• **Class Products:** Each class, you will follow along with the textbook to produce a final class product. This product serves as a participation grade for the course and must be submitted in the correct file format. Class products are due on the day of class, mostly Thursdays (late submission will not be accepted) and will carry **14% of class grade**.
• **Lab Assignments:** You will have weekly lab assignments to complete, 14 in total. I will provide details in D2L for you to access the assignments and data (if needed). You will have 1 week to complete each assignment and late assignments will have one mark deducted for each day. **Check out D2L for**

assignment due date. Lab Assignments will carry **56% of class grade.**

- ***You will likely need to work outside of the scheduled class time to complete course activities and assignments. Bolin 105 will be open during the week and you can download ArcGIS Pro to your own PCs.***

- ***Class grades will be given during office hours or by appointment. You will be responsible for keeping track of your assignment grades.***

Table 1. Overall percentage value for course exams and assignments

Exams/Assignments	Percent
Class Products	14
Lab Assignments	56
Exams	30
Total	100

Grading Standards
This class uses the following numerical equivalents for grades:
A = 100-90% | B = 89-80% | C = 79-70% | D = 69-60% | F = 59-0%.

Extra Credit:
There will be no extra credit offered for this course. If you are struggling, try harder. If you are still struggling, come see me.

Late Work:
Make-up exams will only be given where notice of a university-excused absence is presented ***before or within one class period of the scheduled exam.** Late Class Products will not be accepted. Late lab assignments will have one letter grade deducted. ***Special note** – Class Products and lab assignments submitted on time, but in the wrong file format, will be considered late if a corrected re-submission is not made before the due date.

Attendance – Attendance is **necessary**. In-person attendance for students in this class is **mandatory** except for university-excused students. Students with 4 or more unexcused absences may be dropped from the course. All students should refer to the MSU Student Handbook for university policies related to student responsibilities, rights, and activities.

Desire-to-Learn (D2L)
Extensive use of the MSU D2L program is a part of this course. Each student is expected to be familiar with this program as it provides a primary source of communication regarding assignments, examination materials, and general course information. You can log into D2L through the MSU Homepage. If you

experience difficulties, please contact the technicians listed for the program or contact your instructor.

Moffett Library
Moffett Library provides resources and services to support student's studies and assignments, including books, peer-reviewed journals, databases, and multimedia materials accessible both on campus and remotely. The library offers media equipment checkout, reservable study rooms, and research assistance from librarians to help students effectively find, evaluate, and use information. Get started on this [Moffett Library webpage](#) to explore these resources and learn how to best utilize the library.

Student Handbook
Refer to: [Student Handbook](#)

Academic Misconduct Policy & Procedures:
Academic Dishonesty: Cheating, collusion, and plagiarism (the act of using source material of other persons, either published or unpublished, without following the accepted techniques of crediting, or the submission for credit of work not the individual's to whom credit is given). Additional guidelines on procedures in these matters may be found in the Office of Student Conduct. Cheating, collusion, and plagiarism on course assignments will result, at a minimum, in a grade of '0' for that assignment. Depending on the magnitude of the offense, a course grade of 'F' or withdrawal from the course may be imposed.

Change of Schedule:
A student dropping a course (but not withdrawing from the University) within the first 12 class days of a regular semester or the first four class days of a summer semester is eligible for a 100% refund of applicable tuition and fees. Dates are published in the Schedule of Classes each semester.

Important Dates:
Last day for term schedule changes: 8/26
Deadline to file for graduation: 9/23
Last day to drop with a grade of "W:" 10/9
Refer to: [Drops, Withdrawals & Void](#)

Refund and Repayment Policy:
A student who withdraws or is administratively withdrawn from Midwestern State University (MSU) may be eligible to receive a refund for all or a portion of the tuition, fees and room/board charges that were paid to MSU for the semester. HOWEVER, if the student received financial aid (federal/state/institutional grants, loans and/or scholarships), all or a portion of the refund may be returned to the financial aid programs. As described below, two formulas (federal and state) exists in determining the amount of the refund. (Examples of each refund calculation will be made available upon request).

Services for Students With Disabilities:
In accordance with Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, Midwestern State University endeavors to make reasonable accommodations to ensure equal opportunity for qualified persons with disabilities to participate in all educational, social, and recreational programs and activities. After notification of acceptance, students requiring accommodations should make application for such assistance through Disability Support Services, located in the Clark Student Center, Room 168, (940) 397-4140. Current documentation of a disability will be required in order to provide appropriate services, and each request will be individually reviewed. For more details, please go to [Disability Support Services](#).

College Policies:
Smoking/Tobacco Policy:
College policy strictly prohibits the use of tobacco products in any building owned or operated by WATC. Adult students may smoke only in the outside designated-smoking areas at each location.

Alcohol and Drug Policy:
To comply with the Drug Free Schools and Communities Act of 1989 and subsequent amendments, students and employees of Midwestern State are informed that strictly enforced policies are in place which prohibits the unlawful possession, use or distribution of any illicit drugs, including alcohol, on university property or as part of any university-sponsored activity. Students and employees are also subject to all applicable legal sanctions under local, state and federal law for any offenses involving illicit drugs on University property or at University-sponsored activities.

Campus Carry
Effective August 1, 2016, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public university campuses, except in locations the University establishes as prohibited. The new Constitutional Carry law does not change this process. Concealed carry still requires a License-to-carry permit, and openly carrying handguns is not allowed on college campuses. For more information, visit [Campus Carry](#).

Active Shooter
The safety and security of our campus is the responsibility of everyone in our community. Each of us has an obligation to be prepared to appropriately respond to threats to our campus, such as an active aggressor. Please review the information provided by the MSU Police Department regarding the options and strategies we can all use to stay safe during difficult situations. For more information, visit [MSUReady – Active Shooter](#). Students are encouraged to watch the video entitled "*Run. Hide. Fight.*" which may be electronically accessed via the University police department's webpage: [*"Run. Hide. Fight."*](#)

Grade Appeal Process:
Update as needed. Students who wish to appeal a grade should consult the Midwestern State University Undergraduate Catalog

GEOS 3044 Course & Lab Schedule

Week	Dates	Lecture/Lab Topics / Assignments / Exams	Text Chapter(s)
1	8/27, 8/29	Course & Computer Lab Intro & Data Management; Intro to ArcGIS Desktop and Pro, Geospatial Data: Projections and Layers **Lab Assignment 1 assigned**	1
2	9/3, 9/5	Tables, Attributes, and Queries **Lab Assignment 1 due** **Lab Assignment 2 assigned**	2
3	9/10, 9/12	Layouts **Lab Assignment 2 due** **Lab Assignment 3 assigned**	3
4	9/17, 9/19	ArcGIS Online and Story Maps **Lab Assignment 3 due** **Lab Assignment 4 assigned** **Exam 1 9/19**	4
5	9/24, 9/26	Sourcing Online Spatial Data **Lab Assignment 4 due** **Lab Assignment 5 assigned**	5
6	10/1, 10/3	Creating Spatial Data **Lab Assignment 5 due** **Lab Assignment 6 assigned**	6
7	10/8, 10/10	Editing Spatial Data **Lab Assignment 6 due** **Lab Assignment 7 assigned** **Exam 2 10/10**	7
8	10/15, 10/17	Spatial Analysis **Lab Assignment 7 due** **Lab Assignment 8 assigned**	8
9	10/22, 10/24	Geoprocessing **Lab Assignment 8 due** **Lab Assignment 9 assigned**	9
10	10/29, 10/31	Raster data **Lab Assignment 9 due** **Lab Assignment 10 assigned** **Exam 3 10/31**	12
11	11/5, 11/7	Remote sensing **Lab Assignment 10 due** **Lab Assignment 11 assigned**	13
12	11/12, 11/14	Spatial Interpolation **Lab Assignment 11 due** **Lab Assignment 12 assigned**	14
13	11/19, 11/21	DEMs **Lab Assignment 12 due** **Lab Assignment 13 assigned**	15
14	11/26, <u>11/28</u>	Contours & TINs **No Class <u>11/28</u> – Thanksgiving Break**	16
15	12/3, 12/5	**Lab Assignment 13 due** **Lab Assignment 14 assigned** **Exam 4 12/5**	16
16	Final Week	**Lab Assignment 14 due** **NO CLASS (Travelling for AGU conference)**	N/A

Underlined dates are classes missed due to the Holidays and conference travel

Notice: Changes in the course syllabus, format, assignments, and schedule may be made at the discretion of the instructor.