

Abilene Approval Chart for Curriculum Changes

A = Approve I = Information Item R = Respond In Writing

Course Number: SDS 496 - Statistics and Data Science Capstone

or Degree Plan(s):

		Dept./School	College	Dean	TEC	AUAC/Grad	Provost
	Campus-Level Academic Review¹						
	Change to a Course Include signatures from all chairs/program directors for cross-listed courses. ¹						
1.	Title (description unchanged)	A	A	A	I	I	I
2.	Description (not affecting content)	A	A	A	I	I	I
3.	Course term(s)	A	I	A	I	I	I
4.	Content (change of course outcomes)	A	A	A	I	I	A
5.	Number of credit hours	A	A	A	A	A	A
6.	Course number within the hundred	A	A	I	I	I	I
7.	Course number beyond the hundred	A	A	A	A	A	A
8.	Prerequisites	A	A	A	I	I	I
9.	Course restriction (e.g., majors only, junior standing)	A	A	A	A	A	A
10.	Level change (U to G or G to U)	A	A	A	A	A	A
11.	Cross list course	A	A	A	A	A	A
12.	Department of record	A	A	A	A	A	A
13.	Open or close a course	A	A	A	A	A	A
	Change to a Degree Plan						
14.	Educational Program — Revise	A	A	A	A	A	A
15.	Educational Program — Adopt/revise admission requirements	A	A	A	A	A	A
16.	GPA — Revise program-required GPA	A	A	A	A	A	A
17.	Minor — Revise	A	A	A	A	A	A

		Dept./School	College	Dean	TEC	AUAC/Grad	Provost	Campus Faculty	Senior VPAA	President
	Full Review									
	Change to Catalog Information (for Campus)									
18.	General requirements for Bachelor's and Associate Degrees	-	-	-	-	A	A	A	A	I
19.	Policies governing academic probation and suspension	-	-	-	-	A	A	A	A	I
20.	Requirements for graduating with honors	-	-	-	-	A	A	A	A	I
	Change to a Degree Plan									
21.	Educational Program — Add or Discontinue ³	A	A	A	A	A	A	A	A	I
22.	Educational Program — Discontinue (Provost-proposed)	R	-	R	A	A	A	A	A	I
23.	Minor — Add or Discontinue	A	A	A	A	A	A	-	A	I
24.	Minor — Discontinue (Provost-proposed)	R	-	R	A	A	A	-	A	I
25.	Degree — Add or Discontinue	A	A	A	A	A	A	A	A	I
26.	Degree — Discontinue (Provost-proposed)	R	-	R	A	A	A	A	A	I

		Dept./School	College	Dean	AUAC	Provost	UGEC	University Faculty	Senior VPAA	President
	Change to General Education Requirements for Undergraduates (System)									
27.	Change course outcomes of an included course	A	A	A	A	A	A	-	A	I
28.	Add or drop a required course from the General Education Requirements	A	-	A	-	A	A	A	A	I
29.	Add or drop a course from a menu within the General Education Requirements	A	-	A	-	A	A	-	A	I
30.	Comprehensive revision of General Education Requirements	-	-	-	-	A	A	A	A	I

Notes

² Any change to a cross-listed course requires the signature of both department chairs or program directors overseeing the course to ensure that the courses stay in sync. This includes courses taught at other campuses (e.g. BIBL 101 and BIBO 101).

³ For undergraduate majors, a minimum of 30 hours is required. These programs must have a minimum of 6 elective hours, unless the requirements of external accrediting bodies make it impossible. Master's programs must include a minimum of 30 hours, and doctoral programs must include a minimum of 30 hours beyond the master's.

⁴ When a department/school or dean proposes closing a program, approval routing follows the typical process beginning with the department/school. An administrative proposal by the provost or senior vice president for academic affairs would follow the "provost-proposed" routing on the chart.

Updated 8/1/2023

Department/School(s)	
<i>John Ehrke</i>	02/06/2026
Chair Signature	Date
Chair/Program Director Signature	Date
College Academic Council(s)	
<i>Kathleen Lee</i>	03/19/2026
Chair Signature	Date
Chair Signature	Date
Dean(s)	
<i>Charles M. Minter</i>	3/30/2026
Signature	Date
Signature	Date
Teacher Education Council	
Signature	Date
Campus Academic Council: Abilene Undergraduate or Abilene Graduate	
Signature	Date
Provost	

Signature

Date

University General Education Council

Signature

Date

University Faculty

Abilene Faculty Senate Chair signature

Date

Dallas Faculty Council Chair signature

Date

Senior Vice President for Academic Affairs

Signature

Date

President

Signature

Date

Abilene New Course Application

You may delete the preceding instructional pages before submitting an application.

Course ID (<i>Subject Code and Number</i>)	SDS 496
--	---------

1. Systems and Catalog Information Complete each item.

A	Course Developer	Randy Nguyen and John Ehrke
B	Course Instructor	John Ehrke
C	Course Title	Statistics and Data Science Capstone
D	Course Abbreviation for Banner if title is more than 30 characters	
E	College	OSE - Onstead Science and Engineering ▾
F	Department or School	MATH - Mathematics ▾
G	Number of Credit Hours	2 ▾
G1	Number of Lecture Contact Hours	2 ▾
G2	Number of Lab Contact Hours	0 ▾
H	Is the course for a fixed or variable number of credit hours?	Fixed ▾ If variable, explain rationale:
I	Is the course repeatable for additional credit?	No ▾
J	Maximum total number of credit hours a student can earn for this course	2
K	Course Schedule Type	Seminar (SEM) ▾ See Schedule Type definitions in the Reference section.
L	Number of Faculty Workload Hours	2 ▾
M	Grading Mode	Standard ▾
N	Maximum Enrollment	20

O	Catalog Description (50 words or less)	Students apply the knowledge and techniques of their statistics and data science coursework to projects involving real data from students' domains of interest. Projects reflect the entire data science workflow; developing and refining questions of interest, preparing data, applying suitable analysis techniques, visualizing data, and communicating results to potential stakeholders.
P	List any prerequisites (course/s, test scores, class standing, major, etc.)	SDS 396
Q	List any corequisites (these <i>must</i> be taken at the same time; note that a single requirement cannot be both a prerequisite <i>and</i> a corequisite)	
R	If the course is cross-listed, specify the subject code and course number of the other course	
S	Does this course require any additional student course fees?	☐ No If yes, attach a completed course fee form .
T1	Will the course be offered in fall terms?	☒ Yes, every year
T2	Will the course be offered in spring terms?	☐ No
T3	Will the course be offered in summer terms?	☐ No
U	First semester this course will be offered under a new Course ID. <i>May not be earlier than the coming fall semester.</i>	Fall 2027
V	Is this course required for a program(s)?	☒ Yes If yes, attach a completed curriculum proposal to change the program(s).

W	Should the addition of this course be retroactively applied to the degree plan it supports? <i>This is rare, and rationale should explain compelling extenuating circumstances.</i>	No ▾ If yes, provide rationale:
X	Has this course been offered as a Special Topics course? <i>New courses are not required to be taught as Special Topics courses prior to approval.</i>	No ▾ If yes, provide course ID, term, and enrollment:
Y	List any courses in which the content overlaps the proposed course. (Course ID and Name). <i>Attach a statement from the instructor/dept chair of the existing course justifying the new offering.</i>	MATH 497, see explanation below

2. Curriculum

- A. Explain any effects of this course on any degree plans. If the addition of the course alters program requirements, submit a separate [Approval Chart for Curriculum Change](#) to update the program.

This only affects the new program in SDS and is a part of the program proposal. We are considering allowing Actuarial Science students to enroll in this course instead of 497 if they choose to. For now we will consider that as a waiver/substitution to their degree requirement of 497, but may change it in the future.

- B. Justify the addition of this course to the current curriculum, explaining the gap it meets.

This is a companion course to MATH 497: Mathematics Capstone, which we currently teach. 496 and 497 will meet concurrently with the same course instructor. The two courses have slightly different assessments and outcomes though as they serve slightly different audiences.

3. Course Design

- A. Audience and Course Goal
1. Describe the intended audience, including prerequisite skills.

This course is intended for SDS majors only. It is a senior level Capstone course. There are a program's worth of prerequisite skills leading to this point.

2. State the overarching course goal(s) in performance terms.

- Apply and solidify concepts learned throughout the program—such as statistics, machine learning, data cleaning and management, and programming—to solve complex, interdisciplinary problems.
- Practice essential workplace skills, including teamwork, project management, and leadership within a collaborative environment.
- Identify business or research objectives and translate them into data science goals.
- Demonstrate mastery of the entire data science pipeline.
- Present technical findings to both technical and non-technical stakeholders through written reports, oral presentations.
- Provide opportunities to collaborate with professional stakeholders as consultants, building a professional track record.

B. Student Learning Outcomes and Measurements

	Student Learning Outcome	Measurement
1	Students will develop vocational skills related to professional conduct in a statistics and data science related field.	Mock Interview Final Presentation and Technical Report Client Satisfaction Questionnaire
2	Students will assess their personal journey in the study of mathematics and articulate how their values, philosophies and learning processes contribute to their vocational goals.	Faith and Vocation Paper ETS Major Field Exam
3	Students will recognize trends, anomalies and synthesize multiple data representations.	Final Presentation and Technical Report
4	Students will translate complex data into actionable insights for non-technical audiences.	Final Presentation and Technical Report
5	Students will synthesize teamwork, ethics, time management, and professional standards in a consultation experience.	Client Satisfaction Questionnaire

C. Text and Resources

Give the full publication information of the textbook/s and other required resources and outside readings. For **combined undergraduate/graduate** courses, make two lists:

A. full publication information; label **Undergraduate**.

None

- B. full publication information; label **Graduate**.

4. Supporting Documentation

Required of all applications	
1	Approval Chart for Curriculum Changes
2	Syllabus — Attach the syllabus for the course based upon the anticipated first-semester offering.
4	Library — Submit new course application and syllabus to the Library dean's office. Attach the Library's memo.
Attach if applicable	
5	Content Overlap — Include one document for each course you listed in Section 1Y. Attach statement from instructor/dept chair of existing course justifying the new offering.
6	Departmental Resources — List the resources that support the course and are available only through the department, if applicable. Attach the list of the holdings and the location(s).
7	Resources — List resources (other than library or departmental resources) that are needed to support this course (computers, lab equipment, other technology, etc.). Attach a complete list of all items and indicate possible sources or estimated cost of each. List the sources of any needed funds.
8	Expenses — List additional expenses needed to implement this course (full-time or part-time faculty, graduate or lab assistants, student employees, travel, special student costs, room renovation, storage facility, etc.). Attach a complete list of all items, the estimated cost of each and the source of the funds.
9	Justification — Attach any documents to which you refer in Section 2B.



Onstead College of Science and Engineering
Department of Mathematics

SDS 496
Statistics and Data Science Capstone
Section 01
Fall 2027

Syllabus

Contact Information

Instructor: Dr. John Ehrke, Associate Professor of Mathematics, Chair

Email: john.ehrke@acu.edu

Phone: 325-513-4242 (cell), 325-674-2162 (office)

Office: Onstead Science Center 173

Instructor Availability

It is my responsibility as the instructor to provide timely responses to all email or personal communications in a respectful and professional manner. In kind, the same applies to student communications with the instructor.

In-Person Office Hours: Tuesday 9-11 am, 2-4 pm, Wednesday 3-4 pm, Thursday 9-11 am

Zoom Office Hours: By appointment only.

Join Zoom Meeting

<https://acuonline.zoom.us/j/8095293581>

Meeting ID: 809 529 3581

Mission Statements

This course supports ACU's mission statement of preparing students for Christian service and leadership throughout the world by providing students a foundational understanding of the mathematical principles such as problem solving and decision making, as well as exposing students to the role of mathematics in a Christian worldview.

The mission of the Onstead College of Science and Engineering is to explore and understand God's creation in the natural world and apply the acquired knowledge and principles to address its issues and challenges.

The mission of the Department of Mathematics is to educate students to be quantitative and analytical thinkers in preparation for Christian service and leadership throughout the world.

Course Information

Credit Meeting and Hours Information

This is a 2-credit hour course that meets on Monday, Wednesday each week.

Room: OSC 235

Time: 2:00 – 2:50 MW

Course Description and Purpose

SDS 496 - Statistics and Data Science Capstone (2-0-2), fall. Students apply the knowledge and techniques of their statistics and data science coursework to projects involving real data from students' domains of interest. Projects reflect the entire data science workflow; developing and refining questions of interest, preparing data, applying suitable analysis techniques, visualizing data, and communicating results to potential stakeholders. *A capstone and writing intensive course.*

Prerequisites: SDS 396

Course Goals

- Apply and solidify concepts learned throughout the program—such as statistics, machine learning, and programming—to solve complex, interdisciplinary problems.
- Practice essential workplace skills, including teamwork, project management, and leadership within a collaborative environment.
- Identify business or research objectives and translate them into data science goals.
- Demonstrate mastery of the entire data science pipeline.
- Present technical findings to both technical and non-technical stakeholders through written reports, oral presentations.

- Provide opportunities to collaborate with corporate partners or research groups, building a professional track record.

Course Materials

Course Text: There is no assigned course text.

Technology: We will spend a significant portion of the semester writing and working on statistical analyses. Be prepared to use Overleaf, Python, R and other statistical analysis tools on a regular basis as you complete your consulting assignments.

Learning Management System: This course will make use of the Canvas learning management system (LMS). Canvas can be accessed through the myACU portal and will host assignments, discussions, and a variety of lecture resources including links to slides and videos. Canvas also features a course calendar with due dates for various assignments as well as class prep lists. We will reference Canvas early and often throughout the semester.

Writing Intensive Courses

This class serves as the writing-intensive course for the Statistics and Data Science major. Writing-intensive courses emphasize writing as a primary mode of learning, and written assignments constitute much of the final grade. Adopting language from the ACU Catalog, writing-intensive courses contribute to students' "strong analytical, communication, quantitative and information skills - achieved and demonstrated through learning in a range of fields, settings and media, and through advanced studies in one or more areas of concentration."

The Writing Center at ACU, located in the Learning Commons, is a facility where any writer can come discuss writing tasks of any kind. Our tutors are experienced and trained writers, mostly graduate students from ACU's Language and Literature department, who will consult with you regarding any writing task, at any stage of the writing process. Call 674-4833 for more information. All of our services are free. The writing center is available online at www.acu.edu/writingcenter/.

Course Competencies

The course competencies below describe the outcomes of the course in terms of specific measurable actions, capabilities, or skills students will be able to perform as a result of experiences in the course.

Course Competencies	Measurement Instrument
Develop vocational skills related to professional conduct in a statistics and data science related field.	Mock Interview Final Presentation and Technical Report Client Satisfaction Questionnaire
Assess your personal journey in the study of mathematics and articulate how your values, philosophies and learning processes contribute to vocational goals.	Faith and Vocation Paper ETS Major Field Exam
Describe trends and anomalies in complex data sets and synthesize multiple data representations.	Final Presentation and Technical Report
Translate complex data into actionable insights for non-technical audiences.	Final Presentation and Technical Report
Synthesize teamwork, ethics, time management, and professional standards in a consultation experience.	Client Satisfaction Questionnaire

Course Outline

This is a seminar style course where most class meetings revolve around discussions. There may be times when lecture and group activities will be used though. All meeting dates, assignments, and due dates are listed in the table below. Meetings marked as consultation days refer to students having no assigned class meeting time and are expected to be meeting with their capstone project faculty mentors or working on their capstone presentations instead.

Course Assessments and Grading

This course utilizes a standard points-based scheme allowing students to earn up to 1000 points from various assessments throughout the semester. Your grade in the course is based on the following point tiers at semester's end.

Since the grading scheme is point based - every point in the course is created equal. A point lost on a quiz is the same as a point lost on a test. *All assessments matter!*

Point Total Earned	Letter Grade Received
1000 - 900	A
899 - 800	B
799 - 700	C
699 - 600	D
< 600	F

There are many different assessment types that you will encounter in this course. A breakdown of these assessments is provided in the table below.

Description	Number	Points Available
Faith and Vocation Reflection	1	100
Comprehensive Skills Inventory	1	30
Resume, Cover Letter, Job Posting	1	60
Mock Interview	1	60
Literature Review	1	60
Sponsor Meetings	3	70
Outline, Abstract and Introduction	1	30
Capstone Paper and Presentation First Drafts	1	30
Capstone Project Poster	1	90
Capstone Project Presentation	1	150
Capstone Project Paper	1	220
Final Exam - ETS Field Test	1	100
Total Points		1000

Writing Assignments x 3 (190 points) Students will be assigned to complete a few writing assignments apart from the Capstone paper.

FAITH AND VOCATION PAPER (100 points): You will be required to write a 750-1000 word essay on how your major area of study has influenced your faith and how your faith has influenced your study of mathematics. The purpose of this assignment is to have you reflect on your spiritual, personal and academic growth while at ACU. *This should focus solely on your growth and understanding during your time at ACU..* This assignment is to demonstrate your ability to think critically about faith and vocation as it is expressed in your discipline. (University Capstone Requirement)

COMPREHENSIVE SKILLS INVENTORY (30 points) - You will submit an updated inventory of all scholarship (research or creative activities), accomplishments, co-curricular activities, service, leadership, internships, etc. After each section, write a two or three sentence reflection on how each has prepared you to be a better student at ACU and/or to be successful after you graduate from ACU. (University Capstone Requirement)

RESUME, COVER LETTER, JOB POSTING (60 points): You will be required to locate a job posting in a field related to your major that you would like to apply and are qualified for. You will need to submit a resume tailored to the job posting and a cover letter that addresses how you are qualified and meet the requirements listed in the job posting. You are to submit three products: a resume, a cover letter, and the job posting. (University Capstone Requirement)

Mock Interview, (60 points) Students will be required to complete a mock interview process. The details of the mock interview will be outlined in Canvas. Suggestions for navigating the interview process will be provided. Expect to demonstrate your skills in coding and data analysis at this interview.

Literature Review / Methodology, (60 points) The student will prepare a 5-8 minute presentation that provides information concerning the relevant literature/methodology associated with their project, the history of the topic behind the project, and any background information that is pertinent to the project. Hopefully, this will be molded into the beginning of your final report presentation and at the same time, provide you with adequate references for your writing. The presentation should be submitted to Canvas before the start of class.

Capstone Project, (590 points) The major component of your course grade is the capstone project. The capstone project has three parts: a required written report to the sponsor along with a reproducible code base, a required 18–23 minute presentation that summarizes and highlights the major results of your project, and a required poster that summarizes and highlights the major results of your project.

The Statistics and Data Science Consultation Capstone project is a high-level experiential project where students or professionals act as "unpaid consultants" to solve specific, strategic challenges for real-world clients. Unlike a standard independent project, this model focuses on delivering actionable

insights and practical tools to an external partner. Information for that semester's capstone project will be delivered to students at the beginning of the semester. Students are graded on the following areas.

CLIENT SATISFACTION EVALUATION (30 points): You work directly with a "sponsor"—which can be a corporation (e.g., IBM, HubSpot), a government agency, or a non-profit. Your sponsor will be given a form to evaluate your performance.

ITERATIVE CHECK INS (70 points): You will have biweekly (or at another timing specified by your sponsor) meetings with the sponsor and your consultation board to provide progress updates and gather feedback on your model's performance. Your consultation board will be chosen at the end of the seminar course. It includes your instructor and other faculty from campus that can help speak into your project.

PRACTICE CAPSTONE PROJECT PRESENTATION (30 points): You will have the opportunity to give a practice presentation prior to the actual presentation to the department. This will provide feedback that you can use to improve your presentation. All presentations should be submitted to Canvas before the start of class practice presentations take place regardless of order of presentation group. You will have the opportunity to submit a draft of your capstone project paper to get feedback and comments.

CAPSTONE PROJECT POSTER (90 points): You will be required to prepare a research poster that summarizes the results of your capstone project. The poster should include (at a minimum) the following sections: title, presenter's name and affiliation, introduction, methods, results, conclusion(s), references, acknowledgments (and Interlocking ACU academic logo). The research poster should be 40 inches wide by 32 in high. See Canvas for more information about the format of the poster. You will present your posters the Monday before Thanksgiving during class.

CAPSTONE PROJECT PRESENTATION (150 points): You will give a professional presentation designed for non-technical stakeholders to your sponsor and the class. You are expected to use technology for your presentation and to be professionally dressed.

Presentations will be graded by mathematics faculty who watch your presentation and by your sponsors using the Capstone Presentation Assessment Rubric. Your grade on the presentation will be calculated as follows: the scores from all the faculty and the sponsors will be combined (averaged) to get a score between 0 and 75. This score will then be multiplied by 2 so that it is a score between 0 and 150.

CAPSTONE PROJECT DELIVERABLES (220 points): Your capstone project is due on the final week of the semester. You will provide a final report and a reproducible code base for your work. More information about formatting specifications for the report will be posted on Canvas.

Reports will have two faculty graders: the instructor of the course and another faculty member in the Department of Mathematics who served on the consultation board. Papers will be graded using the Capstone Consultation Report Assessment Rubric. Your grade on the paper will be calculated as follows: the scores from the two readings will be averaged to get a score between 0 and 44. This score will then be multiplied by 5 so that it is a score between 0 and 220. This scaled score will then be multiplied by $(1 - 0.05k)$ where k is the number of formatting requirements not followed. This will be your Capstone Project Deliverables grade.

ETS Major Field Exam, (100 points) The final exam will be given at the time scheduled by the university (Wednesday, December 10 from 2:00 - 3:45 PM). I am prohibited from changing the time or date. Make your end-of-semester plans accordingly. The current plan is to give the ETS mathematics major field test. The final exam will be worth 10% (100 points) of your course grade.

A complete listing of assignments can be found in Canvas. Please keep in mind that all due dates in the syllabus are tentative and may be changed during the semester at the instructor's discretion. You will be given plenty of advance notice for due date changes and the most up to date information can be found in Canvas.

Course Policies

Assignment Policies

During the semester, many assignments will have due dates posted on Canvas and announced in class. The purpose of a due date is to give you a timeline within which to work and allow for formative assessment of your work. An assignment, once due, will not be accepted under any circumstance if any of the following have occurred:

- The assignment is not submitted before an answer key is posted.
- The assignment is not submitted before being closed. This applies to Canvas discussions and any assignments completed in Learning Catalytics or in an online homework portal. These have rigid closure times and once closed will not be reopened.
- The assignment is not submitted before all submitted assignments are graded.

In addition, assignments will incur a 10% penalty for each of the following infractions that occur. This includes all assignments in the course - including major assignments - so be careful to follow all given instructions precisely.

- Assignments not turned in on time will receive a 10% penalty for each day it is late.
- Assignments turned in where instructions are not followed will receive a 10% penalty for each infraction.

Penalties are additive, rather than multiplicative, so if an assignment is turned in 2 days late and an instruction was not correctly followed, then there are three infractions for a total penalty of 30%,

meaning the highest grade the assignment could receive is a 70%. (Effectively, I will multiply whatever grade you earn by 0.7 to determine the adjusted grade in this case.)

Please note that you are responsible for working with your group on collaborative assignments -- like the modeling projects -- even if you are not in class on the day groups are assigned. Failure to work with your group in a good faith manner will render you ineligible for credit with the rest of your group. Any group wishing to dismiss a member of the group for inaction must inform the instructor at least three days before the due date. You may opt to complete the assignment on your own for credit if you are dismissed from a group.

In the case of extenuating circumstances, such as illness, injury or other personal emergency you can request an extension for assignments. Any such requests must be made in advance of the due date or class date; requests made after the due date or the start of class where a quiz is taken will not be honored. This means that if you have a conflict that prevents you from attending class to complete an assignment you must notify the instructor before class begins and arrange a time/date to make up the assignment. This policy applies to all assignments including exams/projects. Please note that some assignments cannot have extended due dates and will require you to complete the assignment early if there is a conflict.

Finally, you are ultimately responsible for ensuring that your grade in the course is being calculated correctly according to this syllabus and that there are no missing or incomplete grades in the Canvas gradebook. The instructor will make every effort to keep the gradebook up-to-date and accurate but mistakes can sometimes be made. Please be diligent in taking ownership of your grade and performance in this course.

Attendance and Drop Policy

Your regular attendance is both necessary and expected. You are responsible for all material covered while absent and will be expected to take all scheduled assessments even if you are absent for the associated lectures. Only university approved absences can exempt you from being counted absent. Per university policy, university approved absences must be cleared with the instructor one week in advance. Make your coaches and sponsors aware that failure to comply with this policy may affect your ability to make up missed assignments. If you feel like you need to drop this class, please discuss it with your instructor first. It is your responsibility to make an informed decision when it comes to dropping or not dropping a class.

Collaboration policy: For preparing each presentation, you share work with your assigned teammates and no other students. In particular, when your paper is also being presented by a different team(s) in the same or different section of this course, you may not collaborate or share work with students in this other team(s). Similarly, all other deliverables in the course are individual

assignments. You are required to synthesize, research literature, and produce the document by yourself without working with your classmates. This course is intended to give you experience in autonomous research, so trying to delegate or shortcut preparation is a wasted learning opportunity. Acting against this rule will be considered an academic integrity violation and lead to reprimands. For your paper summaries and comparative analyses, you must produce your own work. You may discuss the papers with classmates, but the submissions must be your own work. Do not use the internet or other sources to find prior analyses to complete your assignments.

Plagiarism and AI policy: The presentation and related work survey emphasize a literature search and compare/contrast to other material. All material you find and use in any of the course deliverables must be explicitly and correctly referenced/cited. Notes:

- Directly copying text from the paper being summarized, and/or from author websites or other sources, without using “quotation marks” around everything that is a direct quote, followed by a reference to the source being quoted, is plagiarism.
- Text and/or slides copied directly from other sources without attribution in presentations is also considered plagiarism.

While the uses of generative AI in industry and society are rapidly expanding, as a tool in academia the use of AI is fraught with potential pitfalls. As a mathematics student, using generative AI to solve any mathematics problem, and submit the work as your own, is strictly prohibited. The purpose of a mathematics course is to develop reasoning skills and problem-solving expertise that can only be properly developed by working through steps thoughtfully and rigorously. AI shortcuts this process and devalues the learning outcomes of the course. Additionally, generative AI is notoriously prone to making mistakes on mathematical calculations.

Generative AI is also strictly prohibited from use in any writing or reflection assignment. You may use AI to help you edit your writing or give feedback on your writing, but it cannot be used to wholly generate your submission or replace your own thoughts. For any other uses of AI please consult your instructor before use as the use of AI may qualify as an academic integrity violation.

Academic Integrity Policy

The most powerful motive for integrity and truthfulness comes from one's desire to imitate God's nature in our lives. As a community of Christian students and scholars, we are each responsible to expect behaviors from each other consistent with the nature of God, to respect the community, and to respect ourselves.

Expectations of academic honesty and integrity extend to both university employees and students. Every member of the community is responsible for protecting the integrity of learning, scholarship,

and research. Being responsible requires action against violations in spite of peer pressure, loyalty, or compassion. Individuals must take responsibility for their own conduct and discourage misconduct by others.

Definition of Academic Integrity

Academic integrity is defined as academic work completed as assigned for each class by the individual or group responsible for the work. Academic work includes but is not limited to reading assignments, homework assignments, assessments, examinations and tests, attendance at required out-of-class activities, written or oral presentations, and laboratory experiments and research.

Violations of academic integrity and other forms of cheating involve the intention to deceive or mislead or misrepresent and therefore, are a form of lying. Specific examples of violations of academic integrity in this course include, but are not limited to, the following:

1. Submitting for credit, in whole or in part, the work of others.
2. Receiving, giving, or using unauthorized aid on an examination, test, quiz, or assignment (e.g., texting).
3. Viewing the answers of a nearby classmate during an examination, test, quiz, or assignment.
4. Having inappropriate notes/practice work available during an examination, test, quiz, or assignment.
5. Obtaining examination, test, or quiz questions before the examination, test, or quiz is given.
6. Accessing printed copies or electronic copies of formulas and/or notes during an examination, test, quiz, or assignment without instructor approval.
7. Failure to give credit to sources used in a work in an attempt to present the work as one's own.
8. Submission of paper(s), project(s), or assignment(s), in whole or in part, obtained from any source, such as a friend, research service, or club paper file, as one's own.
9. Allowing other members of a group to provide a disproportionate fraction of a required group project or activity.
10. Claiming credit for an attendance or service activity without attending or performing the activity.
11. Written or oral presentation of falsified materials and facts, including but not limited to the results of interviews, laboratory experiments, and field-based research.

Consequences of Breach

Violations of academic integrity may result in, but are not limited to, the following consequences:

- A first offense will result in a grade of 0 on the assignment in which the violation of academic integrity occurred.
- You will be permitted to remain in the class after the first offense of being found in violation of the academic integrity policy.

- A second violation in a class will result in an automatic grade of F in the course.
- All violations of academic integrity will be reported to the Dean of the College of Arts and Sciences and the Dean of Students in the Student Life Office.

Appeal Process

If you would like to appeal a decision, then please follow this link to file an appeal:

<https://acu.edu/office-of-the-provost/academic-integrity-process/>.

Disability Accommodations

Abilene Christian University is dedicated to removing barriers and opening access for students with disabilities in compliance with ADA and Section 504 of the Rehabilitation Act. The Alpha Scholars Program facilitates disability accommodations in cooperation with instructors. In order to receive accommodation, you must be registered with the Alpha Scholars Program, and you must complete a specific request for each class in which you need accommodations. If you have a documented disability and wish to discuss academic accommodations, please call our office directly at 325-674-2667.

Medical and Mental Care

ACU is committed to making the return to campus as safe as possible by providing students, faculty and staff with resources to promote their health. We will continue working tirelessly to fine-tune our cleanliness and hygiene protocols. The ACU Medical and Counseling Care Center, along with Wildcat Care, are available to assist you with medical and mental health needs. Now more than ever, telehealth is an excellent resource, allowing you to stay healthy, talk with a provider 24/7 and greatly limit your exposure to illness. Many medical concerns, such as a cold, sinus infection, rash, nausea, etc., can be discussed via telehealth. In addition to providing in-person care for your medical needs, the ACU Medical Clinic can provide COVID-19 testing with same-day results.

Anti-Harassment Policy

As a professor, one of my responsibilities is to help create a safe learning environment on our campus. I also have a mandatory reporting responsibility related to my role as a professor. It is my goal that you feel able to share information related to life experiences in classroom discussions, in your written work, and in our one-on-one meetings. I will seek to keep the information you share private to the greatest extent possible. When I am not able to keep your information confidential, I will only share it with responsible administrators on campus who can provide you with services and resources. I am required to share with the Title IX Coordinator information regarding sexual misconduct or harassment, dating or domestic violence or stalking that you report to me. If you would prefer to share information in a confidential setting, I encourage you to speak with someone in the [ACU](#)

[Counseling Center](#). All of your options are available for review by clicking on the link to ACU's [policy](#).

Title IX Policy: At ACU, we strive to comply with all applicable legal requirements prohibiting, preventing and responding to sexual misconduct against any member of the ACU community. The full Title IX policy and process can be found at <https://acu.edu/human-resources/title-ix-and-sexual-misconduct-information/>.

ABILENE CHRISTIAN UNIVERSITY

LIBRARY

M E M O R A N D U M

DATE: FEBRUARY 13, 2026
TO: Dr. John Ehrke
FROM: Mark McCallon, Associate Dean for Library Services
RE: New Course Application – SDS 496 – Statistics and Data Science Capstone

After reviewing the course syllabus, the Library is able to support the proposed course. Please contact Mark McCallon (mccallonm@acu.edu), if additional library resources are needed for the course. Thank you for the opportunity to evaluate the course syllabus.



February 16, 2026

Dr. John Ehrke
Associate Professor of Mathematics, Department Chair
Department of Mathematics
Onstead Science Center 173
(325) 674-2162

Re: Statistics and Data Science Capstone (SDS 496)

Dear Dr. Ehrke,

Thank you for the submission of SDS 496: Statistics and Data Science Capstone for review. I have reviewed it based on the ACU Syllabus Guidelines. I found the syllabus to meet all aspects of the checklist.

Please note that this letter is intended as a reference, which will be read by the department chair and council members, who may also have questions or comments of their own. If you have any questions, please feel free to let me know.

Please also let me know if we can help in the design and facilitation of this course.

Sincerely,

A handwritten signature in black ink, appearing to read 'Amos Gutierrez', with a stylized flourish at the end.

Dr. Amos Gutierrez
Director of Instructional Design, Adams Center