South Dakota School of Mines & Technology
Calculus III
Fall 2025

MATH 225-M05/M06
Four (4) Credit Hours

Instructor Information

Instructor's Name

Matt Leonard

Instructor's Contact Information

Phone: 605-939-0858

Email: WILLIAM.LEONARD -AT- SDSMT.EDU

Office Location: McLaury 304I

Office Hours are available on our Google Site. Appointments can be made at a mutually convenient time with at least twelve (12) hours' notice.

Email is my preferred method of contact. I will respond within twenty-four (24) business hours.

Course Information

Course Start/End Dates

This course begins Monday, 25 August 2025 and ends Wednesday, 17 December 2025.

Course Meeting Times and Location

Section M05: MWRF 1:00pm-1:50pm, McLaury 306
Section M06: MWRF 2:00pm-2:50pm, McLaury 208

Course Delivery Method

Our course will meet face-to-face at the times and locations specified above. Class time will be split among the following: lecture-style remarks on course content, interactive discussions of course content, discussions of effective mathematical communication and standards of notation to which you will be held in this course, and opportunities to work through practice problems on your own, in groups, and along with your instructor. If possible, we will set aside some class time for student presentations of solutions to practice problems.

- Course materials are available at our Google Site.
- Course grades, as well as access to our textbook, are on D2L.
- Our D2L section is named:

2025 Fall – Calculus III (MATH-225-M05/M06)

Course Description
A continuation of the study of calculus, including an introduction to vectors, vector calculus, partial derivatives, and multiple integrals.

Course Prerequisites/Co-Requisites
To remain enrolled in this course, you must have earned a passing grade in MATH 125: Calculus II.

Student Learning Outcomes
A student who successfully completes this course should be able to:

1. Analyze position, velocity, and acceleration in two or three dimensions using the calculus of vector-valued functions.
2. Use partial derivatives to calculate rates of change of multivariable functions and to solve multivariable optimization problems.
3. Use multiple integrals to compute volume, mass, center of mass, and related quantitites for two- and three-dimensional objects.
4. Compute line integrals, including those representing work done by a variable force in a vector field.

Course Goals
This course meets the BOR-mandated General Education Goal #5: Students will understand and apply fundamental mathematical processes and reasoning. As a result of taking a course meeting this goal, students will:

1. Use mathematical symbols and mathematical structure to model and solve real world problems.
- Students will identify, interpret, and correctly apply standard mathematics symbols to solve problems requiring the partial derivative.
- Students will identify, interpret, and correctly apply standard mathematics symbols to solve problems requiring multiple integrals.
- Students will identify, interpret, and correctly apply standard mathematics symbols to solve problems requiring vectors and vector functions.

2. Demonstrate appropriate communication skills related to mathematical terms.
- Students will correctly use functional notation of algebra, trigonometry, and calculus.

3. Demonstrate the correct use of quantifiable measurements of real-world situations.
- Students will apply their knowledge of the integral in applications such as area, volume, moments, work, arc length, and surface area.
- Students will apply their knowledge of the derivative in applications such as rates of change, linear approximations, optimization, velocity, and acceleration.

Course Topics

Topics we discuss in this course may include, but are not limited to: a (re)intrudoction to vectors (including vector arithmetic, dot products, cross products, and their applications); the calculus of vector-valued functions; parametrizations of planar and spatial curves; the components of planar and spatial motion; sketching surfaces, traces, and level curves; the notion of a derivative when a function has more than one independent variable; the multivariable chain rule, gradients, directional derivatives, and tangent planes; local extrema of functions of two independent variables; double and triple integrals in at least two coordinate systems; line integrals of scalar and vector-valued functions; vector fields; the Fundamental Theorem of Line Integrals; Green's Theorems; surface integrals of scalar and vector-valued functions; Stokes' Theorem; the Divergence Theorem.

Course Materials

Required Textbook(s) and Materials

- *Thomas' Calculus* (15th edition) by Hass, Weil, Bogacki & Weir
    - You should have First Day Access via D2L.
- Notes you take and examples you work during class.
- Suggested practice problems, some of which are from the textbook and others which are not. These are found on our Google Site.

Technology Equipment and Skills Needed for the Course

For this class, you are expected to be able to do the following (this is not an exhaustive list): use a web browser to navigate to both our Google Site and D2L; open documents on our Google Site; access, read, and respond to messages sent to your Mines email account; use D2L to access your textbook and to check your course grades; where appropriate, use technology such as a calculator or online tool (such as math3d.org) to assist you in your work.

Course Grading

Coursework

- We will have eight (8) in-class exams during the semester.
- We will have a final exam during the week of finals.
- See the section **Grading and Assessment** for more information.
- Suggested homework problems can be found on our Google Site. These problems are not collected for grading. I will be delighted to discuss homework problems during office hours, so stop by!
- Each exam may have one or more bonus questions. *There will be no other opportunities for extra credit – do not ask.*

Attendance Policy

- I do not take attendance.
- Excused absences will be handled in accordance with South Dakota Mines Policy 3-1. Please familiarize yourself with this policy.

Late/Make-up Assignment Policy

- If you miss a lecture day, or other non-exam day, ***it is your responsibility to obtain notes from a classmate.***
- If you have a planned, excused absence which coincides with an in-class exam, **you are expected to make up the corresponding exam *before you leave (whenever it is reasonable to do so)***. These situations will be handled on a case-by-case basis.
- If you miss an in-class exam day without notice, then a decision regarding whether or not that absence is considered excused, and thus whether or not a make-up exam will be permitted, will be determined in accordance with South Dakota Mines Policy 3-1.
    - The three-day window for requesting an excused absence for missing an exam will be waived in an extreme emergency.
- If you miss an in-class exam and your absence is deemed unexcused, you will not be permitted to complete revisions for that exam.
- If you have a planned absence on a day exam revisions are due, please plan to submit your revisions ahead of the deadline, or to make arrangements to send your revisions with a reliable classmate.
    - Excused absences which fall on top of exam revision deadlines will no longer be used to circumvent deadlines. Per South Dakota Mines Policy 3-1: "Instructors are not obligated to grant extensions for assignments that have been available to students for at least 3 business days, even if the submission due date coincides with a student's excused absence."
- In the event you have an unplanned absence on a day when exam revisions are due, please make every effort (within reason) to get your revisions submitted on time – in these circumstances, I will accept revisions by e-mail, but this should not become a habit. If this is not possible, then revisions will be accepted late only if your absence is considered legitimate and verifiable in accordance with South Dakota Mines Policy 3-1.
- Any make-up exam, whether given before or after an absence, may not be the same as the exam given to the rest of the class.
- It is the policy of the Department of Mathematics that final exams will NOT be given early. If you miss the final exam for a legitimate and verifiable reasons (in accordance with South Dakota Mines Policy 3-1), then you will receive an Incomplete for the course, and you will take a make-up final exam during the first week of the Spring 2026 semester. Otherwise, you will receive a zero for the final exam.

- Per South Dakota Mines Policy (2-8), if you are scheduled to take three or more final/last exams on the same day during finals week, you may request that the middle exam(s) of the day be rescheduled. ***You are required to make this request of your Instructor(s) at least 30 days prior to the last day of regular classes***.

Academic Integrity

South Dakota Mines is committed to academic honesty and scholarly integrity. The South Dakota Board of Regents (BOR) Policy 2.9.2 provides a comprehensive definition of "Academic Dishonesty", which include cheating and plagiarism. All Instructors at South Dakota Mines are required to report allegations of academic misconduct to the Student Conduct Officer. BOR Policy 3.4.1 provides detailed information regarding key definitions, policy information, prohibited conduct, and the Student Conduct process adhered to at South Dakota Mines. Any student suspected of violating academic integrity standards will be reported in accordance with the process outlined on the South Dakota Mines website.

Grading and Assessment

The only graded assignments in this course are exams.

Exams: General Comments

- Please see the calendar for the dates of the in-class attempt for each exam as well as the final exam.
- Starting with the second exam, each exam will feature both new and previous course content. Previous course content will constitute at most 40% of the points on a particular exam.
- Per South Dakota Mines Policy (2-8), if you are scheduled to take three or more final/last exams on the same day during finals week, you may request that the middle exam(s) of the day be rescheduled. ***You are required to make this request of your Instructor(s) at least 30 days prior to the last day of regular classes***.

Exams: Expectations for Solutions

- To *meet expectations* for a particular question, a solution to an exam question must be **satisfactory** when revised.
- Should a student submit a **satisfactory** solution to a question on the in-class attempt at the exam, that student has *exceeded expectations.*
- A solution to an exam question is considered **satisfactory** when that solution demonstrates mathematical correctness as well as an understanding of the standards for notation and communication we establish in this course.
- Students are limited to **one** (1) revision attempt per in-class exam.

Exams Grading: In-Class Attempt
When the in-class attempt of an exam is graded, each question will be marked with one of the following symbols.

- An **E** means you earned full credit on that question. This means you exceeded expectations by submitting a satisfactory solution to this question on the in-class attempt. Questions marked with an **E** are ***not*** eligible for revisions.
- An **A** means you earned 95% credit on that question (rounded up to two decimal places). This means that you still exceeded expectations by submitting a solution that was nearly satisfactory but for one or two very small errors which did not detract from the overall solution. What constitutes 'very small errors that do not detract from the overall solution' is wholly at the discretion of the instructor, not the student. Questions marked with an **A** are ***not*** eligible for revisions – but fear not, you have still *exceeded expectations*.
- An **R** means that your solution demonstrated a good faith effort to answer the question, but the solution was not considered satisfactory according to the aforementioned standards. Questions marked **R** are eligible for revisions at the level of 85% credit if the revision is successful.
- A **U** means that your solution demonstrated little to no understanding of what was necessary to answer the question, and/or your solution contained so many mathematical, notational, and/or communication errors that your solution is difficult or impossible to follow. Illegible or blank missing solutions will automatically receive a mark of **U**. Questions marked **U** are still eligible for revisions, but the amount of credit you could earn on revisions to these questions will be capped at 50% credit if the revision is successful.

Exam Grading: Revisions
As aforementioned, questions marked either **R** or **U** may be revised one time on each in-class exam.

- If you successfully revise a question which was originally marked **R**, then that question will receive a mark of **S** and earn 85% credit (rounded up to two decimal places). This means you have *met expectations*.
- If you choose not to attempt to revise a question which was originally marked **R**, that solution will still receive 60% credit (rounded up to two decimal places).
- If you attempt to revise a question which was originally marked **R**, but your revision is not successful but would otherwise still be considered **R**-level work, you will receive a mark of **RR** and earn 60% credit (rounded up to two decimal places).
- If you attempt to revise a question which was originally marked **R**, but your revised solution is significantly worse (i.e., at the **U**-level), then your revision attempt will be marked **RU** and you will receive 50% credit (rounded up to two decimal places).

- If you successfully revise a question which was originally marked **U**, then that question will receive a mark of **US** and earn 50% credit (rounded up to two decimal places).
- If you attempt to revise a question which was originally marked **U**, but your revised solution is either improved by not satisfactory (i.e., **R**-level) or your revised solution remains at the **U**-level, you will receive, as appropriate, either a mark of **UR** or **UU**, and receive 25% credit (rounded up to two decimal places).
- If you choose not to revise a question originally marked **U**, you earn no credit on that question.

Preparing & Submitting Revisions

- Each in-class exam may revised **one** (1) time.
- A deadline to submit revisions will be specified for each exam.
- I will not accept revisions after their specified due date unless the absence which resulted in your failing to submit revisions on time can be considered legitimate and verifiable in accordance with South Dakota Mines Policy 3-1.
- I will provide you with a clean copy of each exam for your revisions. Please write your revisions on this new, blank copy.
- Please submit your original in-class exam along with your revisions – this gives me a chance to compare your original work to your revised work.
- Even if your revisions to a question are relatively minor, please prepare a complete solution to that question.
- For questions with multiple parts (i.e., parts (a), (b), etc.), you need only revise those parts which require revision. Some exceptions may apply, and I will be clear when this is the case. If you're not sure, ask.
- When preparing your revisions, you may use the following resources: a calculator, math3d.org or Desmos/Desmos3D, or another approved mathematics program (ask me!), notes you've taken in class, homework problems you've completed, the documentation on our Google Site, previous course exams, and your peers. By a "peer", I mean any student currently enrolled in one of my two sections of MATH 225 this semester (sections M05 and M06).
- **I will not answer questions about exam revisions.**
- Many students read this last bullet point and conclude I won't help them at all. This is simply not true. **However**, if you wish to discuss exam revisions during office hours, then you must either bring specific course notes to discuss, specific examples we worked in class, specific references to course documents from our Google Site, or specific problems from the textbook and/or the additional homework on the Google Site. There are almost always problems which are eerily similar to our exam questions and we can work through those together as needed.
- **The Slide Rule student tutors and faculty are NOT considered acceptable resources to assist you with your revisions. Using the tutors and faculty at the Slide Rule in this fashion will be considered a violation of Academic Integrity and handled accordingly.**

Exam Score
Your score for each exam will be the number of points you earned divided by the number of possible points (example: 67.42/71). This is how your exam scores will appear in the D2L gradebook.

Exam Weights
Each in-class exam is worth 11% of your course grade. The final exam is worth 12% of your course grade.

Mulligan Policy
If you score at least 80% on the final exam, I will replace your lowest in-class exam score with your final exam score (assuming this replacement improves your course grade).

Grading Questions & Gradebook Errors

- Questions about how a particular exam problem is graded will be handled on a case-by-case basis during office hours.
- A request for a change of the mark received on an exam question will be handled on a case-by-case basis during office hours.
    - In the event your instructor has made a grading blunder that went against you, then of course this oversight will be corrected, so please speak up!
    - In cases where there is some disagreement between what mark should be given to solutions which are not satisfactory, please keep in mind that your instructor may have a different perspective from your own on how a problem is assessed and therefore your request may not be honored.
- **All questions about the grading of exam problems must be settled one (1) week after the revision deadline for that exam.**
- If there is an incorrectly-recorded grade in D2L which went against you, please let me know so I can update your score in D2L. I may ask to see your physical copy of the corresponding exam for verification purposes. There is no deadline for fixing D2L scores, though you are encouraged to check that scores are accurately recorded after each exam to avoid any end-of-semester panic.

Comprehensive In-Class Exam Policy
As aforementioned: Starting with the second exam, each exam will feature both new and previous course content. Previous course content will constitute at most 40% of the points on a particular exam.

Comprehensive Final Exam Policy
Everything we cover in this course is fair game for the final exam.

Grading Scale & Final Course Grades

Final course grades will be assigned according to the traditional ten-point grading scale. Your course grade will not be rounded – meaning that if, for example, your course grade is 79.9887%, that's still a C.

A:[90, ∞) B:[80,90) C:[70,80) D:[60,70) F:[0,60)

Your instructor reserves the right to *relax*, but NOT *increase*, these cutoffs.

Other Matters

Testing Center Scheduling Protocols

- Students whose ADA accommodations for course exams require an alternative testing site (including, but not limited to, extended testing time and/or reduced distraction or private testing conditions) **must** schedule their exams with the Testing Center in the Deveraux Library. *You must schedule your exam for the same day as the corresponding in-class exam and at a time that overlaps with our class time as much as possible*. Exceptions to this will be handled on a case-by-case basis.
- The Testing Center requires a minimum of **seventy-two (72) hours' notice** when scheduling exams. The exam dates for my course are already provided in the course syllabus and on our Google Site. Please schedule your exams with the Testing Center as soon as possible. *Failur to schedule your exams with the Testing Center in accordance with this policy means you forfeit your accommodations for that exam; in such cases, you will take that exam with the rest of the class.*
    - *o* In the event of a last-minute change to an exam day (such as in the event of a snow day), and if the Testing Center cannot accommodate you due to that last-minute change, then we will work together to be sure you can take your exam under appropriate conditions.

Homework

The suggested practice problems for each section are usually a mix of problems from the textbook, problems curated from other sources, and problems of my own devising. Detailed solutions are provided for most of the suggested problems outside of the textbook. However, it will be to your detriment if you ignore textbook problems – don't make this mistake.

Office Hours

If you visit office hours – and you should! – then please be prepared to try one or more problems on the whiteboard or chalkboard. This is a great chance for both of us to assess your work in a setting with instant feedback and nothing at stake. This is also a great chance for us to be sure you're meeting expectations for communication and notation. *Please understand that office hours will NOT be used for make-up lectures for content that you may have missed due to an absence (excused or not).*

Class Preparation
The course calendar lists the section(s) of the text we will discuss on any given day. It is your responsibility to read the indicated sections of the textbook, and to familiarize yourself with the ideas in the Summary section of the corresponding Suggested Practice Problems document, ahead of those class days where we discuss course content.

Class Time
Our class time is precious and limited. In order to ensure we have adequate time to consider two or more relevant examples, it is essential that you prepare yourselves ahead of class time according to the comments in the section above, *Class Preparation*. Examples in this class can sometimes be pretty extensive, so please understand there may be class days where we see only two examples, and where we may have to omit certain time-consuming computational details that you will need to go back and fill in for yourselves. While many examples you see in class will be "instructor-led", I also plan to have examples for you to try on your own or in small informal groups, or examples where we "crowdsource" a solution as a class.

Class Participation
I love when students participate! However, if a particular student is dominating class participation by answering questions without giving anyone else a chance to answer, I will ask that student to scale back their participation so that other students have a chance to participate. Failure to change this sort of behavior once it has been addressed by the instructor will be considered a *Behavioral Disruption* and will be handled as indicated in that section of this syllabus.

Promptness & Seating
Class begins when scheduled. Those of you who are early or on time, please leave a few seats free near the door for those students who may be late for reasons beyond their control. If you are occasionally late to class, I am not going to sweat it, though I would ask that you are gentle with the door to the classroom as you enter, and that you find a seat near the door. *Please* do not walk in front of the class to find a seat as it's quite distracting. Frequent tardiness without extenuating circumstances will be considered a *Behavioral Disruption* and handled as indicated in that section of this syllabus.

Restroom Breaks
You do not need to ask for permission to visit the restroom. However, certain classrooms have poor desk arrangements, and poorly-located points of ingress or egress with doors that are unnecessarily loud. If you find that you often need to visit the restroom during class (which is understandable since my sections are just after lunch!), please find a seat near the door, and please be gentle with the door. Please also make every effort not to distract your classmates when you exit and return, and *please* try not to cross in front of the class as you enter and exit. If it becomes clear that you are making little to no effort to avoid being a distraction when you exit and return to class for a restroom break, this behavior will be considered a *Behavioral Disruption* and handled as indicated in that section of this syllabus.

Electronic Disruptions
If a personal electronic device, such as (but not limited to) a laptop, smart phone, or other personal music device (such as headphones) becomes a distraction to you, to me, and/or to others during class time, the offending parties will be given a choice: lose 10% off your next exam, or bring a snack to share with the entire class at the next non-exam class meeting. Repeated disruptions of this nature will be considered a *Behavioral Disruption* and handled as indicated in that section of this syllabus.

Behavioral Disruptions
In recent semesters, I have seen a surprising increase in disruptive and distracting behavior. Suffice to say this is baffling from college-aged students. While the following do not purport to cover all such behavioral disruptions I have seen, it should give you an idea:

- Anything listed in the above sections *Class Participation, Promptness & Seating*, *Restroom Breaks,* and *Electronic Disruptions* where it is clear a student is making no effort to change repeated disruptive behavior.
- Making repeated, unsolicited comments audibly (whether such comments are intended to yourself or the class at large is irrelevant if said comments are a distraction).
- Making no effort to minimize the volume of sneezes and coughs.
- Stretching, fidgeting, or other physical movements or actions that are excessively disruptive or distracting.
- Conversations with classmates at times when conversation is not appropriate.

If a student engages in repeated disruptive behaviors (whether those listed above or other behavior not covered by the above list), and if that student is making no apparent effort made to regulate or eliminate the behavior, I will proceed as follows.

1. I will discuss the behavior privately with the student after class or during office hours at most two (2) times.
2. If there are future disruptions after addressing the behavior as indicated in item (1), then I will ask the student to leave class. Said student will not be allowed to return to class until they meet with both my Department Head, Dr. Travis Kowalski, and the Dean of Students, Dr. Joe Dlugos, to explain why they have been temporarily removed from class and to discuss what plans that student has made to address the behavior going forward.
3. If the behavior continues after item (2) has been attempted, then I will seek to have the student expelled from my class for the duration of the semester.

Academic Freedom Statement

Academic Freedom is the cornerstone upon which higher education is built. Academic freedom, as defined by BOR Policy 1.6.1, is fundamental to the advancement of truth, development of critical thinking, promotion of civil discourse, and contribution to the public good. Each course includes the freedom to discuss relevant matters and present various scholarly views in the classroom, as determined by the subject-matter expertise of the instructor. Students are encouraged to develop the capacity for critical thinking and to pursue the truth, debate ideas, express and evaluate their opinions, and draw conclusions. Students are free to take reasoned exception to the views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled.[1]

[1]Language adapted from the American Association of University Professors "Joint Statement on Rights and Freedoms of Students".

Complaint Process

While we hope that every student has a meaningful and positive experience at South Dakota Mines, should a concern arise, students are encouraged to first attempt to resolve their concern directly with the person or office directly involved. Following that attempt, should the concern remain unresolved, students are encouraged to reach out to the Dean of Students office at DeanOfStudents@sdsmt.edu or 605.394.2416. Additionally, students may access the online form to submit their complaint, appeal, or grievance.

Grade Appeal Policy

In alignment with BOR Policy 2.9.1,and SDSMT Policy 2-21, students who wish to appeal their final course grade shall first discuss the matter with the course instructor. If the concerns are unresolved following that discussion, students may appeal to the instructor's department head or supervisor for a decision. If the student is dissatisfied with the supervisor decision, the student may then utilize the online form to submit "Appeal – Academic" for a "Grade Dispute".

Opportunity for All - Student Success Services and Support

Students are provided a one-stop source for information regarding all the services and supports to ensure success. Visit the Opportunity Center page to learn more.

South Dakota Board of Regents Required Syllabus Statements

The following statements may be found online in South Dakota Board of Regents Academic Affairs Council Guideline 2.7.3.A(1):

- Freedom in Learning
- Americans with Disabilities Act
- Academic Dishonesty and Misconduct
- Acceptable Use of Technology
- Emergency Alert Communications

Classroom Community and Mutual Respect

This classroom is a safe space for learning and is an academic environment; you should expect to have your ideas, work, and arguments respectfully challenged. Our population is a variety of students with a great diversity of beliefs, and the class must be respectful of all members.

Email Communication

Each student has been issued a South Dakota Mines email address. This is the official method of communication from the institution to the student. Students are expected to utilize their South Dakota Mines email address for all electronic communication related to this course and their education record at South Dakota Mines.

Netiquette

Just as there are expectations for courteous and respectful in-person interactions in a classroom where students and faculty are all present with each other, there are similar expectations for online communications. All members of the South Dakota Mines community are expected to:

- Have respect and consideration for classmates, faculty/instructor, and staff
- Use appropriate language and tone
- Use correct grammar and punctuation
- Use text fonts and colors that are ADA compliant
- Respect the privacy of classmates and what they share in class
- If you are offended by a discussion post or comment made by a classmate, ask classmates to clarify what they meant, to ensure you understand
- Be cautious about using humor and sarcasm in an online environment, as it can easily be misinterpreted

Title IX

Title IX of the Educational Amendments Act of 1972 is the federal law prohibiting discrimination based on sex under any education program and/or activity operated by an institution receiving and/or benefiting from federal financial assistance. Behaviors that can be considered "sexual discrimination" include sexual assault, sexual harassment, stalking, relationship abuse (dating violence and domestic violence), sexual misconduct, and gender discrimination. You are encouraged to report these behaviors. South Dakota Mines can better support you as a student if we know about what is happening. Reporting also helps us to identify patterns that might arise – for example, if more than one complainant reports having been assaulted or harassed by the same individual. The Title IX coordinator is Ms. Amanda Lopez, amanda.lopez@sdsmt.edu, 605.394.2533.

South Dakota Mines is committed to providing a safe and positive learning experience. To report a violation of sexual misconduct or gender discrimination, please contact the Title IX Coordinator, Amanda Lopez, at 605-394-2533 or submit an online report. *Please note that as your professor, I am required to report any incidences to the Title IX Coordinator. Confidential support for students is available by contacting the Student Counseling Center at 605-394-1924 or counseling@sdsmt.edu.

Generative Artificial Intelligence Tool Utilization

To fully support the development of your independent thinking and creativity in this course, the use of generative Artificial Intelligence (genAI) tools is only allowed on the specific assignments and other course-related work expressly identified by the instructor. In instances where you are not specifically told it is acceptable to use a genAI tool, embrace the challenges of learning, scholarship, and personal growth and complete the assignment without the support of a genAI tool.

It is important to be aware of the risks of utilizing genAI tools in courses:

- Data privacy: genAI tools collect and store a significant amount of personal data from students. This raises concerns about how this data is used and protected, as well as the potential for misuse or unauthorized access. When you copy your own work into the genAI tool, keep in mind that your work no longer belongs to you, and it can be used in the genAI tool's learning.
- Bias in algorithms: genAI tools may be trained on bias data sets, which will then result in the algorithm reproducing that bias in the responses.
- Feedback loop inaccuracies: genAI models rely on feedback to improve their accuracy over time. If the feedback provided by students or instructors is incorrect, the genAI model may make inaccurate predictions based on faulty information.
- Hallucinations: Artificial intelligence systems may generate erroneous or misleading information that is not based on real data or patterns.

- Lack of transparency: The AI algorithm and decision-making processes are often complex and opaque, making it difficult for students to understand how their interactions with the genAI tool are being evaluated and assessed.
- Lack of training data: AI models require large amounts of high-quality training data to learn and make accurate predictions. If the training data used to build the AI model is incomplete or biased, the model may not be able to accurately predict answers.
- Limited context awareness: genAI tools lack the ability to understand the full context of an assignment, which can lead to inaccurate recommendations, responses, or assessments.

Changes to Course Schedule

As per SDBOR Academic Affairs Council Guideline 2.7.3.A, I reserve the right to modify the course schedule at any time.

Tentative Course Schedule

Week 1: 25 August to 29 August

- 25 August: Day One Discussion
- 27 August: Section 12.1
- 28 August: Sections 12.1 & 12.2/12.3/12.4
- 29 August: Sections 12.2/12.3/12.4

Week 2: 1 September to 5 September

- 1 September: *No Class (Holiday)*
- 3 September: Sections 12.2/12.3/12.4
- 4 September: Sections 11.1/12.5
- 5 September: **Exam 1 (In-Class Attempt)**

Week 3: 8 September to 12 September

- 8 September: Exam 1 Debriefing
- 10 September: Sections 11.1/12.5
- 11 September: Sections 11.1/12.5, **Exam 1 Revisions Due**
- 12 September: Sections 11.1/12.5

Week 4: 15 September to 19 September

- 15 September: Sections 13.1/13.2/13.3.1
- 17 September: **Exam 2 (In-Class Attempt)**
- 18 September: Exam 2 Debrief
- 19 September: Sections 13.1/13.2/13.3.1

Week 5: 22 September to 26 September

- 22 September: Sections 13.3.2/13.4/13.5
- 24 September: Sections 13.3.2/13.4/13.5, **Exam 2 Revisions Due**
- 25 September: Sections 12.6/14.1
- 26 September: *No Class (M-Day Activities)*

Week 6: 29 September to 3 October

- 29 September: **Exam 3 (In-Class Attempt)**
- 1 October: Sections 12.6/14.1
- 2 October: Sections 12.6/14.1
- 3 October: Sections 12.6/14.1

Week 7: 6 October to 10 October

- 6 October: Sections 14.3/14.4, **Exam 3 Revisions Due**
- 8 October: Sections 14.3/14.4
- 9 October: Sections 14.3/14.4
- 10 October: **Exam 4 (In-Class Attempt)**

Week 8: 13 October to 17 October

- 13 October: *No Class (Holiday)*
- 15 October: Sections 14.5/14.6
- 16 October: Sections 14.5/14.6
- 17 October: Section 14.7

Week 9: 20 October to 24 October

- 20 October: Section 14.7, **Exam 4 Revisions Due**
- 22 October: Sections 15.1/15.2
- 23 October: **Exam 5 (In-Class Attempt)**
- 24 October: Sections 15.1/15.2

Week 10: 27 October to 31 October

- 27 October: Sections 15.1/15.2
- 29 October: Section 11.3, **Exam 5 Revisions Due**
- 30 October: Section 11.3
- 31 October: Section 15.4

Week 11: 3 November to 7 November

- 3 November: Section 15.4
- 5 November: Section 15.5
- 6 November: **Exam 6 (In-Class Attempt)**
- 7 November: Section 15.5

Week 12: 10 November to 14 November

- 10 November: Section 15.7.1
- 12 November: Section 15.7.1
- 13 November: Section 15.7.2, **Exam 6 Revisions Due**
- 14 November: Section 15.7.2

Week 13: 17 November to 21 November

- 17 November: Section 16.2
- 19 November: **Exam 7 (In-Class Attempt)**
- 20 November: Section 16.2
- 21 November: Section 16.3

Week 14: 24 November to 28 November

- 24 November: Section 16.3
- 26 November: *No Class (Holiday)*
- 27 November: *No Class (Holiday)*
- 28 November: *No Class (Holiday)*

Week 15: 1 December to 5 December

- 1 December: Section 16.3, **Exam 7 Revisions Due**
- 3 December: Section 16.4
- 4 December: Section 16.4
- 5 December: **Exam 8 (In-Class Attempt)**

Week 15: 8 December to 10 December

- 8 December: *Class Time Devoted to Revisions*
- 10 December: *Reading Day (No Classes),* **Exam 8 Revisions Due**

Final Exam

- Wednesday, 17 December, 8:00am-9:50am, Location TBA