



## MATH 207 Introduction to Linear Algebra

### Self-paced Enroll Anytime Online Course

*This is an unofficial syllabus and is subject to change at any time. The official course syllabus is posted in Blackboard or available upon request.*

### Instructor & Course Information

Credits                      2 undergraduate credits

Prerequisites              Math 165: Calculus I

Instructor                  Alexandar Sidles\*

Email                         Visit the Blackboard course for contact information.

\*If you have any course questions prior to enrollment, please email [und.online@und.edu](mailto:und.online@und.edu)

### About the Professor

Alexandar Sidles graduated from the University of North Dakota in 2015 with his MS in Mathematics. Alex has taught enroll anytime courses since then for UND. He resides in Grand Forks, North Dakota with his wife and two daughters.

### Textbook

*Elementary Linear Algebra*, 7<sup>th</sup> ed., by Ron Larson, published by Brooks/Cole. ISBN 1133110878

### Course Description and Objective

The main topics covered in this course are solving systems of linear equations by several methods, rules of arithmetic for matrices and vectors, including determinants and matrix inverses, finding an LU-factorization for certain matrices, ideas of vector spaces and subspace, and computing eigenvalues and eigenvectors of matrices.

### Technical Requirements

The [UND Technical Support webpage](#) contains information on your UND email and how to download a free version of Microsoft Office.

- Students are expected to use their official UND email in the course.
- Adobe Acrobat Reader is required for this course and can be downloaded free [from Adobe's website](#).
- Homework is submitted as a single PDF file. You need a printer and scanner or camera if you wish to complete the assignments on paper. You may also use a touchscreen laptop with a stylus to complete homework.
- The exams are proctored using ProctorU Live as the proctoring method. Visit the exam folders in Blackboard or the [Self-Paced Enroll Anytime Exams webpage](#) for more information on the exam process and technical requirements.
- [View the basic technical requirements](#) for every online course.

## Course Overview

Each lesson has 6 or 8 problems to submit for grading. Each lesson is worth either 24 or 32 points: 4 points for each problem in the lesson. I will leave feedback for each lesson in Blackboard.

Lessons and exams will be graded within 7 days of when I receive them. Exams 1 and 2 of the course each have 8 problems and are worth 100 points each. Exam 3 has 14 problems, worth 180 points. There are no notes, textbooks, or calculators allowed on exams.

This course has three exams. Exams 1 and 2 contain 10 problems and is worth 100 points total. The third exam contains 14 questions and is worth 180 points total. Each exam is split into two parts:

- The first part contains the exam **questions** and has multiple-choice answers. This part is worth 10 points for exams 1 and 2, and 18 points for exam 3.
- The remaining 90 points for Exams 1 and 2, and the remaining 162 points for exam 3 come from your supporting **written work**. The written work must be submitted within 10 minutes of completing the multiple-choice portion.

There are no notes, textbooks, or calculators allowed on exams. The exams are proctored using ProctorU Live+ as the proctoring method. Visit the exam folders in Blackboard or the [Self-Paced Enroll Anytime Exams webpage](#) for more information on the exam process and technical requirements.

Lesson 1: Solution Sets of Linear Systems

Lesson 2: Gaussian Elimination

Lesson 3: Matrix Arithmetic

Lesson 4: Matrix Inverses and LU-Factorization

**Lesson 5 – Exam 1:** Covers content from Lessons 1-4.

Lesson 6: Computing Determinants

Lesson 7: Properties of Determinants

Lesson 8: Vector Operations, Vector Spaces, and Vector Subspaces

Lesson 9: Linear Independence, Bases, and Rank

**Lesson 10 – Exam 2:** Covers content from Lessons 6-9.

Lesson 11: Kernel and Range

Lesson 12: The Matrix of a Linear Transformation

Lesson 13: Eigenvalues, Eigenvectors, and Diagonalizable Matrices

Lesson 14: Symmetric Matrices

**Lesson 15 – Exam 3:** Covers content from Lessons 1-14.

## Assessment and Grading

There will be a total of 700 points available to determine your course grade distributed as follows:

Lesson 5 – Exam I	100 points
Lesson 10 – Exam II	100 points
Lesson 15 – Exam III	180 points
12 written assignments	320 points

Grades will be determined as follows:

630-700 total points	Final grade A
560-629 total points	Final grade B
490-559 total points	Final grade C
420-489 total points	Final grade D
0 – 419 total points	Final grade F

## Netiquette

*Netiquette* is a set of rules for behaving properly online. Here are a few basic points to remember when communicating in this course:

- **Be scholarly.** Use proper language, grammar, and spelling. Explain your thoughts, justify opinions, and credit the ideas of others by citing or linking to scholarly resources. Avoid misinforming others when you are unsure of the answer. When discussing something and supplying a guess, clearly state that.
- **Be respectful.** Respect the privacy of others. Do not share personal or professional information about others unless permission has been granted. Respect diversity and opinions that differ from their own. Be tactful when you communicate.
- **Be professional.** Everyone should strive to give their best impression online. Truthfulness, accuracy, and running a final spell check are appropriate expectations for university students. Writing in a legible font and limiting the use of emoticons is considered professional behavior. Profanity and participation in hostile interactions, known as flaming, is unprofessional as well as disruptive.
- **Be polite.** Students should be addressing professors and instructors by the appropriate title or requested name. Students should interact online politely, just as they would be expected to do in a physical environment. Sarcasm rudeness, and writing in all capital letters (shouting) should be avoided.

For more information, read the [Top 12 Be-Attitudes of Netiquette for Academicians](#).

## About UND Self-Paced Enroll Anytime Courses

You have 3 to 9 months to complete this course from the time of your enrollment. You may work at your own pace and complete lessons/exams on your own schedule, submitting up to 3 per week for grading.

After you finish your course, your final grade will be posted in Blackboard. Please **allow 3-5 business days for your final grade to appear** on your transcript in Campus Connection. You will receive a confirmation email from the Enroll Anytime staff once the final grade is officially posted on your transcript. You may then order an official transcript, if desired.

If you have an **administrative** question regarding course enrollment dates, extensions, withdrawals, questions regarding your transcript, or need exam assistance, please contact the **Office of Extended Learning** at [und.courses@UND.edu](mailto:und.courses@UND.edu) or 701-777-0488.

Questions regarding **coursework** should be directed to the **instructor**.

For **technical support** including username and password help, assignment submission, or other technical assistance in the course, contact [University Information Technology](#).

## Student Resources

Many services are available to online students such as writing assistance from the UND Writing Center, free online tutoring, and more. Visit the [Student Resources page](#) for more information. You can also access the resources webpage from the *Student Resources* link in your Blackboard course menu.

# University of North Dakota Policies & Resources

## Academic Integrity

Academic integrity is a serious matter, and any deviations from appropriate behavior will be dealt with strongly. At the discretion of the professor, situations of concern may be dealt with as a scholastic matter or a disciplinary matter.

As a scholastic matter, the professor has the discretion to determine appropriate penalties to the student's workload or grade, but the situation may be resolved without involving many individuals. An alternative is to treat the situation as a disciplinary matter, which can result in suspension from the University, or have lesser penalties. Be aware that I view this as a very serious matter, and will have little tolerance of or sympathy for questionable practices. A student who attempts to obtain credit for work that is not their own (whether that be on a paper, quiz, homework assignment, exam, etc.) will likely receive a failing grade for that item of work, and at the professor's discretion, may also receive a failing grade in the course. Read more in the [Code of Student Life](#).

## Disability Support and Medical Services

The University of North Dakota is committed to providing equal access to students with documented disabilities. To ensure access to your classes and program, please contact [Disability Services for Students](#) (DSS) to engage in a confidential discussion about accommodations for the classroom, clinical and/or online course settings. Accommodations are not provided retroactively. Students are encouraged to register with DSS at the start of their class/program. More information can be obtained by email [UND.dss@UND.edu](mailto:UND.dss@UND.edu) or by phone at 701.777.2664.

If you receive an exam accommodation from Disability Services for Students, share the letter with the Office of Extended Learning at [UND.courses@UND.edu](mailto:UND.courses@UND.edu).

## Religious Accommodations

UND offers religious accommodations, which are reasonable changes in the academic environment that enable a student to practice or observe a sincerely held religious belief without undue hardship on the University. Examples include time for prayer or the ability to attend religious events or observe a religious holiday. To request an accommodation, complete [student religious accommodation request form](#). If you have any questions, you may contact the [Equal Opportunity & Title IX Office](#).

## Pregnancy Accommodations

Students who need assistance with academic adjustments related to pregnancy or childbirth may contact the Equal Opportunity & Title IX Office or Academic Affairs to learn about your options. Additional information and services may be found at [Pregnancy Resources](#).

## Resolution of Problems

Should a problem occur, you should speak to your instructor first. If the problem continues to be unresolved, go to the department chair, and next to the college Dean. Should the problem persist, you have the right to go to the Provost next, and then to the President.

## Notice of Nondiscrimination

It is the policy of the University of North Dakota that no person shall be discriminated against because of race, religion, age, color, gender, disability, national origin, creed, sexual orientation, gender identity, genetic

information, marital status, veteran's status, or political belief or affiliation and the equal opportunity and access to facilities shall be available to all. Concerns regarding Title IX, Title VI, Title VII, ADA, and Section 504 may be addressed to Donna Smith, Assistant Vice President for Equal Opportunity & Title IX and Title IX/ADA Coordinator, by calling 701.777.4171 or emailing [UND.EO.TitleIX@UND.edu](mailto:UND.EO.TitleIX@UND.edu). Concerns can also be directed to the Office for Civil Rights, U.S. Department of Education, 230 S. Dearborn St., 37th Floor, Chicago, IL 60604, or any other federal agency.

### Reporting Discrimination, Harassment, or Sexual Misconduct

If you or a friend has experienced sexual misconduct, such as sexual harassment, sexual assault, domestic violence, dating violence, or stalking, please contact the [Equal Opportunity & Title IX Office](#) or UND's Title IX Coordinator, Donna Smith, for assistance: 701.777.4171; [donna.smith@UND.edu](mailto:donna.smith@UND.edu). You may also contact the Equal Opportunity & Title IX office if you or a friend has experienced discrimination or harassment based on a protected class, such as race, color, national origin, religion, sex, age, disability, sexual orientation, gender identity, genetic information, pregnancy, marital or parental status, veteran's status, or political belief or affiliation.

### Faculty Reporting Obligations Regarding Discrimination, Harassment, and Sexual Misconduct

It is important for students to understand that faculty are required to share with UND's Title IX Coordinator any incidents of sexual misconduct or of discrimination or harassment based on a protected class they become aware of, even if those incidents occurred in the past or are disclosed as part of a class assignment. This does not mean an investigation will occur if the student does not want that, but it does allow UND to provide resources to help the student continue to be successful at UND. If you have been impacted by discrimination, harassment, or sexual misconduct, you can find information about confidential support services at the [Equal Opportunity & Title IX Office](#).

### UND Cares Program

The [UND Cares program](#) seeks to educate faculty, staff and students on how to recognize warning signs that indicate a student is in distress.

### How to Seek Help When in Distress

We know that while college is a wonderful time for most students, some students may struggle. You may experience students in distress on campus, in your classroom, in your home, and within residence halls. Distressed students may initially seek assistance from faculty, staff members, their parents, and other students. In addition to the support we can provide to each other, there are also professional support services available to students on campus through the Dean of Students and University Counseling Center. Both staffs are available to consult with you about getting help or providing a friend with the help that he or she may need. Visit the [UND Cares program](#) webpage for more additional information.

### How to Recognize When a Student is in Distress

The term "distressed" can mean any of the following:

- Student has significant changes in eating, sleeping, grooming, spending, or other daily activities.
- Student has cut off or minimized contact with family or friends.
- Student has significant changes in performance or involvement in academics, sports, extracurricular, or social activities.
- Student describes problems (missing class, not remembering, destructive behavior) that result from experiences with drinking or drugs.
- Student is acting withdrawn, volatile, tearful, etc.
- Student is acting out of character or differently than usual.

- Student is talking explicitly about hopelessness or suicide.
- Student has difficulty concentrating or difficulty carrying on normal conversation.
- Student has excessive dependence on others for company or support.
- Student reports feeling out of control of one's emotions, thoughts, or behaviors.

### Land Acknowledgement Statement

Today, the University of North Dakota rests on the ancestral lands of the Pembina and Red Lake Bands of Ojibwe and the Dakota Oyate - presently existing as composite parts of the Red Lake, Turtle Mountain, White Earth Bands, and the Dakota Tribes of Minnesota and North Dakota.

We acknowledge the people who resided here for generations and recognize that the spirit of the Ojibwe and Oyate people permeates this land. As a university community, we will continue to build upon our relations with the First Nations of the State of North Dakota - the Mandan, Hidatsa, and Arikara Nation, Sisseton-Wahpeton Oyate Nation, Spirit Lake Nation, Standing Rock Sioux Tribe, and Turtle Mountain Band of Chippewa Indians.