

MATH 5303

Course Syllabus

Spring 2019

**Advanced Calculus and
Linear Algebra**

27050 MATH 5303.001 TR 11:30am-12:45pm CB3 1.308 EYDELZON

Instructor Information

Instructor: Dr. Anatoly Eydelzon
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Office hours: TR 08:50am – 09:50am or by appointment

Course Pre-requisites, Co-requisites, and/or Other Restrictions

Prerequisite: **Instructor consent required**

Course Description

Differential calculus, integral calculus, multivariable calculus, linear algebra, applications, other topics as time permits.

Student Learning Objectives/Outcomes

1. Students will be able to articulate the concepts of calculus and linear algebra.

Required Textbooks, Materials and Additional Resources

- **Textbook:** Mathematical Methods for Physics and Engineering, Third edition, by Ken Riley, Michael Hobson, Stephen Bence, Cambridge University Press
- **Recommended book:** Student Solution Manual for Mathematical Methods for Physics and Engineering, Third edition, by Ken Riley, Michael Hobson, Cambridge University Press

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Schedule (subject to change). Examination weeks are in red.

Wk	T		R	
1	1/15	Algebra review	1/17	Algebra review
2	1/22	Differential Calculus	1/24	HW2 is due, Differential Calculus
3	1/29	Differential calculus	1/31	HW3 is due, Differential Calculus
4	2/05	Integral Calculus	2/07	HW4 is due, Integral Calculus
5	2/12	Integral Calculus	2/14	HW5 is due, Integral Calculus
6	2/19	Complex Numbers	2/21	HW6 is due, Midterm 1
7	2/26	Complex Numbers	2/28	HW7 is due, Series
8	3/05	Series	3/07	HW8 is due, Series
9	3/12	Vector Algebra	3/14	HW9 is due, Vector Algebra
10	3/19	No Class	3/21	No Class
11	3/26	Linear Algebra	3/28	HW11 is due, Linear Algebra
12	4/02	Linear Algebra	4/04	HW12 is due, Midterm 2
13	4/09	Partial Differentiation	4/11	HW13 is due, Partial Differentiation
14	4/16	Partial Differentiation	4/18	HW14 is due, Multiple Integration
15	4/23	Multiple Integration	4/25	HW15 is due, Multiple Integration
16	4/30	Differential Equations	5/02	HW16 is due, Differential Equations

Grade Policy

The course grade is determined from the following:

Weights:	40%	Homework scaled to 100%
	60%	Midterm and Final Examinations together (20% + 20% +20%)
Grade Scale	[90,100]...A	[85,90).....A -
	[80,85).....B+	[75,80).....B [70,75).....B-
	[65,70).....C+	[60,65).....C [55,60).....C-
	[0 ,55).....F	

- Homework assignments will constitute 40% of your course grade. There will be 14 homework assignments.
- Major examinations will constitute 60% of your course grade.
 - Midterm 1: Thursday, 2/21/2019, during the class time
 - Midterm 2: Thursday, 4/04/2019, during the class time
 - Final Examination: TBA

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Course & Instructor Policies

Attendance: Highly recommended.

Citizenship: Any action that disturbs your classmates or interrupts the lecture is unacceptable. Examples of such actions are:

- (a) Entering the classroom late - be as punctual as possible.
- (b) Leaving the classroom before break or before the end of lecture.
- (c) Cell phones, ringers, buzzers, beepers, alarms, blackberries - turn them off unless you are a member of an emergency response team.

An apology is expected from anyone creating such a disturbance.

Student participation in class is desired, however, please raise your hand to speak and avoid having side conversations with your classmates.

Exam/Homework policies

- (a) There will be no make-up homework assignments.
- (b) There will be no make-up exams unless the circumstances are extraordinary.
- (c) Exams and quizzes are open book, notes, but no calculators.

Official UTD Policies

<http://coursebook.utdallas.edu/syllabus-policies/>

This policies are considered to be a part of this syllabus.