

# Math 127 - Calculus III

## Fall 2022 Schedule

### Week 1:

Lecture #	Day	Date	Section(s)
Lecture 1	Monday	8/22	Introduction and Vector Review
Lecture 2	Wednesday	8/24	Vector Review and Start of 12.6
Lecture 3	Friday	8/26	12.6: A Survey of Quadric Surfaces
Lab #	Day	Date	Section(s)
Lab 1	Monday	8/22	Week 1: Lab 1: Worksheet 1
	or Tuesday	or 8/23	Vector Review
Lab 2	Wednesday	8/24	Week 1: Lab 2: Worksheet 2
	or Thursday	or 8/25	Vector Review
Due Dates	Day	Date	Assignments
	Friday	8/26	Diagnostic Quiz 1- Vector Review Canvas (Extra Credit)
	Friday	8/26	Achieve Homework 0: Vector Review
	Friday	8/26	Worksheets 1 and 2 (Attend Labs & Upload to Canvas)

### Week 2:

Lecture #	Day	Date	Section(s)
Lecture 4	Monday	8/29	14.1: Functions of Two or More Variables
Lecture 5	Wednesday	8/31	11.3: Polar Coordinates 12.7: Cylindrical and Spherical Coordinates
Lecture 6	Friday	9/2	Catch up  14.2: Limits and Continuity in Several Variables
Lab #	Day	Date	Section(s)
Lab 3	Monday	8/29	Week 2: Lab 1: Worksheet 3
	or Tuesday	or 8/30	Sections 12.6 and start of 14.1
Lab 4	Wednesday	8/31	Week 2: Worksheet 3
	or Thursday	or 9/1	<b>In-class Review Quiz 1: Equation of Lines and Planes, and Integration Techniques</b>
Due Dates	Day	Date	Assignments
	Friday	9/2	Achieve Homework 1: Section 12.6
	Friday	9/2	Worksheet 3 (Attend Labs & Upload to Canvas)

## Week 3:

Lecture #	Day	Date	Section(s)
	Monday	9/5	Labor Day (No School)
Lecture 7	Wednesday	9/7	14.2: Limits and Continuity in Several Variables
Lecture 8	Friday	9/9	14.3: Partial Derivatives
Lab #	Day	Date	Section(s)
Lab 5			Week 3: Lab 1: Worksheet 4
	Tuesday	9/6	Sections 12.7 and 14.2
Lab 6	Wednesday or Thursday	9/7 or 9/8	Week 3: Lab 1 or 2: Worksheet 4 Sections 12.7 and 14.2
Due Dates	Day	Date	Assignments
	Friday	9/9	Achieve Homework 2: Sections 12.7 and 14.1
	Friday	9/9	Worksheet 4 (Attend Labs & Upload to Canvas)

## Week 4:

Lecture #	Day	Date	Section
Lecture 9	Monday	9/12	14.4: Differentiability and Tangent Lines
Lecture 10	Wednesday	9/14	Catch Up 14.5: The Gradient and Directional Derivatives
Lecture 11	Friday	9/16	14.5: The Gradient and Directional Derivatives
Lab #	Day	Date	Section(s)
Lab 7	Monday or Tuesday	9/12 or 9/13	Week 4: Lab 1: Worksheet 5 Sections 14.2 and 14.3
Lab 8	Wednesday or Thursday	9/14 or 9/15	Work 4: Lab 1 or 2: Worksheet 5 <b>In-class Quiz 2:</b> <b>Sections 14.2 and 14.3</b>
Due Dates	Day	Date	Assignments
	Friday	9/16	Diagnostic Quiz 2 - On Canvas (Extra Credit) Sections 12.6, 12.7, 14.1, 14.2, 14.3
	Friday	9/16	Achieve Homework 3: Sections 14.2 and 14.3
	Friday	9/16	Worksheets 5 (Attend Labs & Upload to Canvas)

## Week 5:

Lecture #	Day	Date	Section(s)
Lecture 12	Monday	9/19	14.6: The Chain Rule
Lecture 13	Wednesday	9/21	14.6: The Chain Rule
Lecture 14	Friday	9/23	14.7: Optimization in Several Variables
Lab #	Day	Date	Section(s)
Lab 9	Monday or Tuesday	9/19 or 9/20	Week 5: lab 1: Worksheet 6 Sections 14.3 and 14.4
Lab 10	Wednesday or Thursday	9/21 or 9/22	Week 5: Lab 2: Worksheet 7 Sections 14.4 and 14.5
Due Dates	Day	Date	Assignments
	Friday	9/23	Achieve Homework 4: Sections 14.4 and 14.5
	Friday	9/23	Worksheets 6 and 7 (Attend Labs & Upload to Canvas)

## Week 6:

Lecture #	Day	Date	Section
Lecture 15	Monday	9/26	14.7: Optimization in Several Variables
Lecture 16	Wednesday	9/28	Midterm 1 Review
<b>Midterm 1</b>	<b>Wednesday</b>	<b>9/28</b>	<b>5:50-7:50 PM Room: Tentatively Budig 120 Sections: 12.6, 12.7, 14.1-14.7</b>
Lecture 17	Friday	9/30	14.8: Lagrange Multipliers
Lab #	Day	Date	Section(s)
Lab 11	Wednesday or Tuesday	9/28 or 9/27	Practice Exam
Lab 12	Monday or Thursday	9/26 or 9/29	Week 6: Lab 1 or 2: Worksheet 8 Section 14.6 and 14.7
Due Dates	Day	Date	Assignments
	Friday	9/30	Diagnostic Quiz 3 - Canvas (Extra Credit) 14.5, 14.6 and 14.7 On Canvas (Extra Credit)
	Friday	9/30	Achieve Homework 5: Section 14.6
	Friday	9/30	Worksheet 8 (Attend Labs & Upload to Canvas)
Optional	Day	Date	Time and Place
Review Practice Exam	Saturday Sunday	9/24 LEEP 2	1:00 – 3:00 PM, Wescoe 3139 Time 4-6 pm

## Week 7:

Lecture #	Day	Date	Section(s)
Lecture 18	Monday	10/3	15.1: Integration in Two Variables
Lecture 19	Wednesday	10/5	Catch Up 15.2: Double Integrals over General Regions
Lecture 20	Friday	10/7	15.2: Double Integrals over General Regions
Lab #	Day	Date	Section(s)
Lab 13	Monday or Tuesday	10/3 or 10/4	Week 7: Lab 1: Worksheet 9 Section 14.7
Lab 14	Wednesday or Thursday	10/5 or 10/6	Week 7: Lab 2: Worksheet 10 Section 14.8
Due Dates	Day	Date	Assignments
	Friday	10/7	Achieve Homework 6: Sections 14.7 and 14.8
	Friday	10/7	Worksheet 9 and 10 (Attend Labs & Upload to Canvas)

## Week 8:

Lecture #	Day	Date	Section
Fall Break	Monday	10/10	
Lecture 22	Wednesday	10/12	15.2: Double Integrals and 15.3: Triple Integrals
Lecture 23	Friday	10/14	15.3: Triple Integrals
Lab #	Day	Date	Section(s)
Fall Break	Monday or Tuesday	10/10 or 10/11	
Lab 15	Wednesday or Thursday	10/12 or 10/13	Week 8: Lab 2: Worksheet 11 Sections 15.2
Due Dates	Day	Date	Assignments
	Friday	10/14	Diagnostic Quiz 4-Canvas (Extra Credit) Section 15.1, 15.2 and 15.3 on Canvas (Extra Credit)
	Friday	10/14	Achieve Homework 7: Sections 15.1 and 15.2
	Friday	10/14	Worksheet 11 (Attend Labs & Upload to Canvas)

## Week 9:

Lecture #	Day	Date	Section(s)
Lecture 24	Monday	10/17	15.3: Triple Integrals
Lecture 25	Wednesday	10/19	15.6: Change of Variables
Lecture 26	Friday	10/21	15.6: Change of Variables
Lab #	Day	Date	Section(s)
Lab 16	Monday or Tuesday	10/17 or 10/18	Week 9: Lab 1: Worksheet 12 Section 15.3
Lab 17	Wednesday or Thursday	10/19 or 10/20	Worksheet 12 <b>In-class Quiz 3:</b> <b>Sections 15.2 and 15.3</b>
Due Dates	Day	Date	Assignments
	Friday	10/21	Achieve Homework 8: Section 15.3
	Friday	10/21	Worksheet 12 (Attend Labs & Upload to Canvas)

## Week 10:

Lecture #	Day	Date	Section
Lecture 27	Monday	10/24	15.4: Integration in Polar, Cylindrical, Spherical
Lecture 28	Wednesday	10/26	15.5: Applications of Multiple Integrals
Lecture 29	Friday	10/28	13.1: Vector-Valued Functions and 13.2: Calculus of Vector-Valued Functions
Lab #	Day	Date	Section(s)
Lab 18	Monday or Tuesday	10/24 or 10/25	Week 10: Lab 1: Worksheet 13 Section 15.3
Lab 19	Wednesday or Thursday	10/26 or 10/27	Week 10: Lab 2: Worksheet 14 Section 15.6
Due Dates	Day	Date	Assignments
	Friday	10/28	Diagnostic Quiz 5 Canvas (Extra Credit) Sections 15.6, 15.4, 15.5
	Friday	10/28	Achieve Homework 9: Sections 15.6
	Friday	10/28	Worksheet 13 and 14 (Attend Labs & Upload to Canvas)

## Week 11:

Lecture #	Day	Date	Section
Lecture 30	Monday	10/31	13.2: Calculus of Vector-Valued Functions
Lecture 31	Wednesday	11/2	Midterm 2 Review
<b>Midterm 2</b>	<b>Wednesday</b>	<b>11/2</b>	5:50-7:50 PM, Room: Tentatively Budig 120 Sections: 14.7, 14.8, 15.1-15.6, 13.1-13.3  (Emphasis is on the material after Midterm 1.)
Lecture 32	Friday	11/4	13.3: Arc Length and Speed
Lab #	Day	Date	Section(s)
Lab 20	Wednesday or Tuesday	11/2 or 11/1	Practice Exam
Lab 21	Monday or Thursday	10/31 or 11/3	Week 11: Lab 1 or 2: Worksheet 15  Sections 15.4 and 15.5
Due Dates	Day	Date	Assignments
	Friday Friday	11/4 11/4	Achieve Homework 10: Sections 15.4 and 15.5 Worksheet 15 (Attend Labs & Upload to Canvas)
Optional	Day	Date	Time and Place
Review Practice Exam	Saturday Sunday	10/29 LEEP 2	1:00 – 3:00 PM, Wescoe 3139 Time TBA

## Week 12:

Lecture #	Day	Date	Section(s)
Lecture 33	Monday	11/7	16.1: Vector Fields
Lecture 34	Wednesday	11/9	16.1: Vector Fields and 16.2: Line Integrals
Lecture 35	Friday	11/11	16.2: Line Integrals
Lab #	Day	Date	Section(s)
Lab 22	Monday or Tuesday	11/7 or 11/8	Week 12: Lab 1: Worksheet 16  Sections 13.1-13.3
Lab 23	Wednesday or Thursday	11/9 or 11/10	Week 12: Lab 2: Worksheet 17  Section 16.1
Due Dates	Day	Date	Assignments
	Friday Friday	11/11 11/11	Achieve Homework 11: Section 13.1-13.3 Worksheet 16 and 17 (Attend Labs & Upload to Canvas)

## Week 13:

Lecture #	Day	Date	Section(s)
Lecture 36	Monday	11/14	16.2: Line Integrals and 16.3: Conservative Vector Fields 17.1: Green's Theorem
Lecture 37	Wednesday	11/16	16.3: Conservative Vector Fields and 17.1: Green's Theorem ( <i>Last day to withdraw</i> )
Lecture 38	Friday	11/18	17.1: Green's Theorem
Lab #	Day	Date	Section(s)
Lab 24	Monday or Tuesday	11/14 or 11/15	Week 13: Lab 1: Worksheet 18 Section 16.2
Lab 25	Wednesday or Thursday	11/16 or 11/17	Week 13: Lab 2: Worksheet 19 Section 16.3
Due Dates	Day	Date	Assignments
	Friday	11/18	Achieve 12: Sections 16.1 and 16.2
	Friday	11/18	Worksheet 18 and 19

## Week 14:

Lecture #	Day	Date	Section
Lecture 39	Monday	11/21	17.1: Green's Theorem and 16.4: Parametrized Surfaces and Surface Integrals
Thanksgiving	Wednesday	11/23	
Thanksgiving	Friday	11/25	
Lab #	Day	Date	Section(s)
Lab 26	Monday or Tuesday	11/21 or 11/22	Week 14: Lab 1: Worksheet 20 Section 16.4
Thanksgiving	Wednesday or Thursday	11/23 or 11/24	
Due Dates	Day	Date	Assignments
	Friday	11/29	Diagnostic Quiz 6 - Canvas (Extra Credit) Sections 13.1-13.3, 16.1, 16.2, 16.3 and 17.1
	Friday	11/25	Worksheet 20 (Attend Labs & Upload to Canvas)

## Week 15:

Lecture #	Day	Date	Section(s)
Lecture 40	Monday	11/28	16.4:Parameterized Surfaces and Surface Integrals and Catch up
Lecture 41	Wednesday	11/30	16.5: Surface Integrals of Vector Fields
Lecture 42	Friday	12/2	16.5: Surface Integrals of Vector Fields 17.2: Stokes' Theorem
Lab #	Day	Date	Section(s)
Lab 27	Monday or Tuesday	11/28 or 11/29	Week 15: Lab 1: Worksheet 21 Section 16.5
Lab 28	Wednesday or Thursday	11/30 or 12/1	Week 15: Lab 1 or 2: Worksheet 21 <b>In-class Quiz 4:</b> <b>Sections 16.1, 16.2, 16.3 Study Worksheet 19, 20, 21 and Achieve 12, 13, 14</b>
Due Dates	Day	Date	Assignments
	Thursday Friday	12/1 12/2	Achieve 13: Sections 16.3 and 17.1 Worksheet 21 (Attend Labs & Upload to Canvas)

## Week 16:

Lecture #	Day	Date	Section
Lecture 43	Monday	12/5	17.2: Stokes' Theorem and 17.3: Divergence Theorem
Lecture 44	Wednesday	12/7	Chapters 16 and 17 Review
Stop Day	Friday	12/9	Stop day Review
Lab #	Day	Date	Section(s)
Lab 29	Monday or Tuesday	12/5 or 12/6	Week 16: Lab 1: Worksheet 22 Sections 17.2
Lab 30	Wednesday or Thursday	12/7 or 12/8	Week 16: Lab 2: Worksheet 23 Section 17.3
Due Dates	Day	Date	Assignments
	Thursday Thursday Thursday	12/8 12/8 12/8	Diagnostic Quiz 7 <sub>Canvas</sub> (Extra Credit) Sections 16.4, 16.5, 17.2, 17.3 Achieve 14: Sections 16.5, 17.2 and 17.3 Worksheet 22 and 23 (Attend Labs & Upload to Canvas)
Optional	Day	Date	Time and Place
Stop Day Review Help room	Friday	12/9	1:00 - 3:00 PM Budig 110 Closes on Friday 12/9, but We reopen on Monday 12/12 for limited hours.



## Final Exams Week :

<b>Final Exam</b>	<b>Wednesday</b>	<b>December 14<sup>th</sup> 4:30 - 7 PM</b>	<b>Final Exam Room Depends on Your Lab Instructor (TBA)</b>
-------------------	------------------	---	---

KU Mathematics