

Multivariable Calculus: Topics and Assignments

Weeks 1 and 2

Monday	7/30	NO SCHOOL!
Tuesday	7/31	NO SCHOOL!
Wednesday	8/1	Class Policy and Expectations ★ HW: Student Info
Thursday	8/2	Section 12.1: 3D Coordinate Systems ★ HW: 3, 6, 7, 13, 17, 21, 27-33, 37
Friday	8/3	Section 12.2: Vectors ★ HW: 1, 11, 13, 18, 21, 25, 27, 30, 35, 37

Monday	8/6	Section 12.3: Dot Product ★ HW: 1, 7, 9, 20, 23(a,b), 27, 31, 42, 47, 49
Tuesday	8/7	Section 12.4: Cross Product ★ HW: 5, 7, 9, 13, 20, 22, 30, 33, 39, 41
Wednesday	8/8	Homework Day: 12.1-12.4
Thursday	8/9	Section 10.1: Parametric Equations ★ HW: 1, 7, 9, 12, 15, 24, 25, 29, 45
Friday	8/10	Group Quiz: Sections 12.1-12.4

Multivariable Calculus: Topics and Assignments

Weeks 3 and 4

Monday	8/13	Section 12.5: Equations of Lines and Planes ★ HW: 1, 5, 9, 16, 21, 25, 29, 35, 41, 46, 51, 55, 69
Tuesday	8/14	Homework Day: 10.1, 12.5
Wednesday	8/15	Section 10.5 & Section 12.6: Cylinders and Quadric Surfaces ★ HW 10.5: 5, 13, 21, 25-30 ★ HW 12.6 : 5, 7, 13, 17, 21-28, 33, 35
Thursday	8/16	Homework Day: 10.5, 12.6
Friday	8/17	Quiz: Sections 10.1, 12.5

Monday	8/20	NO SCHOOL!
Tuesday	8/21	Section 13.1: Vector Functions and Space Curves ★ HW: 1, 6, 7, 13, 17, 21-26, 47
Wednesday	8/22	Section 13.2: Derivatives and Integrals of Vector Functions ★ HW: 1, 5, 13, 17, 22, 25, 37, 39, 49
Thursday	8/23	Test 12 Review Day
Friday	8/24	Test: Sections 12.1-12.6

Multivariable Calculus: Topics and Assignments

Weeks 5 and 6

Monday	8/27	Homework Day: 13.1-13.2
Tuesday	8/28	Section 13.3: Arc Length and Curvature ★ HW: 3, 5, 11, 14, 19, 21, 25, 29, 30
Wednesday	8/29	Section 13.3: Arc Length and Curvature
Thursday	8/30	Homework Day: 13.3
Friday	8/31	Group Quiz: Sections 13.1-13.2

Monday	9/3	NO SCHOOL!
Tuesday	9/4	Section 13.4: Motion in Space ★ HW: 1, 7, 13, 16, 19, 25, 26
Wednesday	9/5	Homework Day: 13.4
Thursday	9/6	Section 14.1: Functions of Several Variables ★ HW: 1, 7, 11, 22, 28, 39, 49, 59-62
Friday	9/7	Quiz: Sections 13.1-13.3

Multivariable Calculus: Topics and Assignments

Weeks 7 and 8

Monday	9/10	Homework Day: 14.1
Tuesday	9/11	Section 14.2: Limits and Continuity ★ HW: 7, 11, 16, 17, 26, 29, 34, 37
Wednesday	9/12	Homework Day: 14.2
Thursday	9/13	Test 13 Review Day
Friday	9/14	Test: Section 13.1-13.4

Monday	9/17	Section 14.3: Partial Derivatives ★ HW: 1, 3, 22, 24, 29, 43, 45, 50, 51, 55, 61, 65
Tuesday	9/18	Section 14.4: Tangent Planes and Linear Approximations ★ HW: 4, 15, 19, 21, 28, 33, 35, 39
Wednesday	9/19	Homework Day: 14.3, 14.4
Thursday	9/20	Section 14.5: The Chain Rule ★ HW: 6, 9, 11, 14, 19, 23, 29, 34, 43
Friday	9/21	Group Quiz: Sections 14.1-14.4

Multivariable Calculus: Topics and Assignments

Weeks 9 and 10

Monday	9/24	Section 14.6: Directional Derivatives and the Gradient ★ HW: 5, 10, 13, 17, 20, 23, 29, 41, 46, 49
Tuesday	9/25	Section 14.6: Directional Derivatives and the Gradient
Wednesday	9/26	Homework Day: 14.5, 14.6
Thursday	9/27	Section 14.7: Maximum and Minimum Values ★ HW: 1, 6, 13, 18, 29, 33, 40, 43, 51
Friday	9/28	Section 14.7: Maximum and Minimum Values

Monday	10/1	Homework Day: 14.7
Tuesday	10/2	Section 14.8: Lagrange Multipliers ★ HW: 3, 6, 9, 21, 27, 30, 37
Wednesday	10/3	Homework Day: 14.8
Thursday	10/4	Quiz: Sections 14.5-14.7
Friday	10/5	Fun Day!

Multivariable Calculus: Topics and Assignments

Week 11 and 12

Monday	10/15	Section 15.1: Double Integrals over Rectangles ★ HW: 1, 4, 5, 13, 18
Tuesday	10/16	Homework Day: 15.1
Wednesday	10/17	Section 15.2: Iterated Integrals ★ HW: 9, 12, 17, 22, 25, 27, 36
Thursday	10/18	Test 14 Review Day
Friday	10/19	Test: Sections 14.1-14.7

Monday	10/22	Homework Day: 15.2
Tuesday	10/23	Section 15.3: Double Integrals over General Regions ★ HW: 5, 9, 13, 16, 19, 32, 37, 44, 51, 55, 57
Wednesday	10/24	Homework Day: 15.3
Thursday	10/25	Section 15.4: Double Integrals in Polar Coordinates ★ HW: 4, 5, 9, 13, 21, 24, 31, 33
Friday	10/26	Homework Day: 15.4

Multivariable Calculus: Topics and Assignments

Weeks 13 and 14

Monday	10/29	Section 15.5: Applications of Double Integrals ★ HW: 2, 5, 9, 13, 15
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Tuesday	10/30	Section 15.6: Surface Area ★ HW: 4, 5, 7, 11, 13
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Wednesday	10/31	Homework Day: 15.5, 15.6
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Thursday	11/1	Section 15.7: Triple Integrals ★ HW: 7, 13, 17, 20, 27, 30, 33, 36
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Friday	11/2	Group Quiz: Sections 15.1-15.4
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Monday	11/5	Homework Day: 15.7
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Tuesday	11/6	Section 15.8: Triple Integrals in Cylindrical Coordinates ★ HW: 1, 4, 5, 8, 9, 11, 20, 23, 29
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Wednesday	11/7	Homework Day 15.8
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Thursday	11/8	Quiz: Sections 15.5-15.7
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Friday	11/9	Fun Day!
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Multivariable Calculus: Topics and Assignments

Weeks 15 and 16

Monday	11/12	NO SCHOOL!
Tuesday	11/13	Section 15.9: Triple Integrals in Spherical Coordinates ★ HW: 1, 4, 5, 10, 13, 17, 19, 27, 35, 39
Wednesday	11/14	Homework Day: 15.9
Thursday	11/15	Section 15.10: Change of Variables ★ HW: 3, 5, 7, 13, 15, 19, 23
Friday	11/16	Homework Day 15.10

Monday	11/19	Fun Day!
Tuesday	11/20	Fun Day!
Wednesday	11/21	NO SCHOOL!
Thursday	11/22	NO SCHOOL!
Friday	11/23	NO SCHOOL!

Multivariable Calculus: Topics and Assignments

Weeks 17 and 18

Monday	11/26	NO SCHOOL!
Tuesday	11/27	Section 16.1: Vector Fields ★ HW: 5, 9, 11-14, 15-18, 21, 25
Wednesday	11/28	Homework Day: 16.1
Thursday	11/29	Test 15 Review Day
Friday	11/30	Test: Section 15.1-15.10

Monday	12/3	Section 16.2: Line Integrals ★ HW: 3, 7, 11, 15, 17, 20, 33, 41
Tuesday	12/4	Section 16.2: Line Integrals
Wednesday	12/5	Homework Day: 16.2
Thursday	12/6	Section 16.3: Fundamental Theorem for Line Integrals ★ HW: 1, 5, 9, 13, 17, 20, 21, 24, 26, 33
Friday	12/7	Section 16.3: Fundamental Theorem for Line Integrals

Multivariable Calculus: Topics and Assignments

Weeks 19 and 20

Monday	12/10	Homework Day: 16.3
Tuesday	12/11	Section 16.4: Green's Theorem ★ HW: 2, 3, 7, 10, 13, 17, 22, 23
Wednesday	12/12	Homework Day: 16.4
Thursday	12/13	Section 16.5: Curl and Divergence ★ HW: 16.5: 5, 7, 9-11, 12, 18, 19, 21
Friday	12/14	Group Quiz: Sections 16.1-16.4

Monday	12/17	Homework Day: 16.5
Tuesday	12/18	Christmas Party!
Wednesday	12/19	Community Day
Thursday	12/20	NO SCHOOL!
Friday	12/21	NO SCHOOL!

Multivariable Calculus: Topics and Assignments

Weeks 21 and 22

Monday	1/7	Review: 16.1-16.3
Tuesday	1/8	Review: 16.4-16.5
Wednesday	1/9	Section 16.6: Parametric Surfaces ★ HW: 3, 5, 13-18, 19, 23, 25
Thursday	1/10	Section 16.6-16.7 Parametric Surfaces & Surface Integrals
Friday	1/11	Section 16.7: Surface Integrals ★ HW: 2, 3, 5, 9, 11, 19, 21, 24, 25

Monday	1/14	Homework Day 16.6, 16.7
Tuesday	1/15	Section 16.8: Stokes' Theorem ★ HW: 1, 2, 5, 7, 10, 14, 17
Wednesday	1/16	Section 16.9: Divergence Theorem ★ HW: 1, 3, 6, 9, 12, 13, 23
Thursday	1/17	Homework Day 16.8, 16.9
Friday	1/18	Quiz: Sections 16.4-16.6

Multivariable Calculus: Topics and Assignments

Weeks 23 and 24

Monday	1/21	NO SCHOOL!
Tuesday	1/22	Senior Trip?
Wednesday	1/23	Senior Trip?
Thursday	1/24	Flex Day?
Friday	1/25	Review: Chapter 12 & 13 ★ HW: Make Final Formula Sheets

Monday	1/28	Reivew: Chapter 14 & 15 ★ HW: Make Final Formula Sheets
Tuesday	1/29	Review: Chapter 16 ★ HW: Make Final Formula Sheets
Wednesday	1/30	Final Part 1: Sections 16.1-16.9
Thursday	1/31	Final Part 2: Chapters 12-15
Friday	2/1	Last Day Party :(
