

Multivariable Calculus: Topics and Assignments

Weeks of 8/1 and 8/8

Monday	8/1	NO SCHOOL!
Tuesday	8/2	NO SCHOOL!
Wednesday	8/3	Syllabus ★ HW: Parent Letter, Student Info
Thursday	8/4	Section 12.1: 3D Coordinate Systems ★ HW: 3, 6, 7, 13, 17, 21, 27-33, 35, 37
Friday	8/5	Section 12.2: Vectors ★ HW: 1, 11, 13, 18, 21, 25, 27, 30, 35, 37

Monday	8/8	Section 12.3: Dot Product ★ HW: 1, 7, 9, 20, 23(a,b), 27, 31, 42, 47, 49, 50
Tuesday	8/9	Section 12.4: Cross Product ★ HW: 5, 7, 9, 13, 20, 22, 30, 33, 39, 41
Wednesday	8/10	Homework Day: 12.1-12.4
Thursday	8/11	Section 10.1: Parametric Equations ★ HW: 1, 7, 9, 12, 15, 24, 25, 29, 45
Friday	8/12	Group Quiz: Sections 12.1-12.4

Multivariable Calculus: Topics and Assignments

Weeks of 8/15 and 8/22

Monday	8/15	Section 12.5: Equations of Lines and Planes ★ HW: 1, 5, 9, 16, 21, 25, 29, 35, 41, 46, 51, 55, 69
Tuesday	8/16	Homework Day: 10.1, 12.5
Wednesday	8/17	Section 10.5: Conic Sections ★ HW: 5, 13, 21, 25-30
Thursday	8/18	Section 12.6: Cylinders and Quadric Surfaces ★ HW: 5, 7, 13, 17, 21-28, 33, 35
Friday	8/19	Quiz: Sections 10.1, 12.5

Monday	8/22	Homework Day: 10.5, 12.6
Tuesday	8/23	Section 13.1: Vector Functions and Space Curves ★ HW: 1, 6, 7, 13, 17, 21-26, 47
Wednesday	8/24	Section 13.2: Derivatives and Integrals of Vector Functions ★ HW: 1, 5, 13, 17, 22, 25, 37, 39, 49
Thursday	8/25	Review Day
Friday	8/26	Test: Sections 12.1-12.6

Multivariable Calculus: Topics and Assignments

Weeks of 8/28 and 9/5

Monday	8/29	Section 13.2: Derivatives and Integrals of Vector Functions
Tuesday	8/30	Homework Day: 13.1-13.2
Wednesday	8/31	Section 13.3: Arc Length and Curvature ★ HW: 3, 5, 11, 14, 19, 21, 25, 29, 30
Thursday	9/1	Section 13.3: Arc Length and Curvature
Friday	9/2	Group Quiz: Sections 13.1-13.2

Monday	9/5	NO SCHOOL!
Tuesday	9/6	Homework Day: 13.3
Wednesday	9/7	Section 13.4: Motion in Space ★ HW: 1, 7, 13, 16, 19, 25, 26
Thursday	9/8	Section 13.4: Motion in Space
Friday	9/9	Quiz: Sections 13.1-13.3

Multivariable Calculus: Topics and Assignments

Weeks of 9/12 and 9/19

Monday	9/12	Homework Day: 13.4
Tuesday	9/13	Section 14.1: Functions of Several Variables ★ HW: 1, 7, 11, 22, 28, 39, 49, 59-62
Wednesday	9/14	Homework Day: 14.1
Thursday	9/15	Review
Friday	9/16	Test: Section 13.1-13.4

Monday	9/19	Section 14.2: Limits and Continuity ★ HW: 7, 11, 16, 17, 26, 29, 34, 37
Tuesday	9/20	Section 14.3: Partial Derivatives ★ HW: 1, 3, 22, 24, 29, 43, 45, 50, 51, 55, 61, 65
Wednesday	9/21	Homework Day: 14.2, 14.3
Thursday	9/22	Section 14.4: Tangent Planes and Linear Approximations ★ HW: 4, 15, 19, 21, 28, 33, 35, 39
Friday	9/23	Section 14.5: The Chain Rule ★ HW: 6, 9, 11, 14, 19, 23, 29, 34, 43

Multivariable Calculus: Topics and Assignments

Weeks of 9/26 and 10/3

Monday	9/26	Homework Day: 14.4, 14.5
Tuesday	9/27	Section 14.6: Directional Derivatives and the Gradient ★ HW: 5, 10, 13, 17, 20, 23, 29, 41, 46, 49
Wednesday	9/28	Section 14.6: Directional Derivatives and the Gradient
Thursday	9/29	Homework Day: 14.6
Friday	9/30	Group Quiz: Sections 14.1-14.4

Monday	10/3	Section 14.7: Maximum and Minimum Values ★ HW: 1, 6, 13, 18, 29, 33, 40, 43, 51
Tuesday	10/4	Section 14.7: Maximum and Minimum Values
Wednesday	10/5	Section 14.8: Lagrange Multipliers ★ HW: 3, 6, 9, 21, 27, 30, 37
Thursday	10/6	Homework Day: 14.7
Friday	10/7	Quiz: Sections 14.5-14.7

Multivariable Calculus: Topics and Assignments

Weeks of 10/17 and 10/26

Monday	10/17	Homework Day: 14.8
Tuesday	10/18	Review
Wednesday	10/19	Review
Thursday	10/20	Review
Friday	10/21	Test: Sections 14.1-14.7

Monday	10/24	Section 15.1: Double Integrals over Rectangles ★ HW: 1, 4, 5, 13, 18
Tuesday	10/25	Homework Day: 15.1
Wednesday	10/26	Section 15.2: Iterated Integrals ★ HW: 9, 12, 17, 22, 25, 27, 36
Thursday	10/27	Homework Day: 15.2
Friday	10/28	Section 15.3: Double Integrals over General Regions ★ HW: 5, 9, 13, 16, 19, 32, 37, 44, 51, 55, 57

Multivariable Calculus: Topics and Assignments

Weeks of 10/31 and 11/7

Monday	10/31	Homework Day: 15.3
Tuesday	11/1	Section 15.4: Double Integrals in Polar Coordinates ★ HW: 4, 5, 9, 13, 21, 24, 31, 33
Wednesday	11/2	Homework Day: 15.4
Thursday	11/3	Section 15.5: Applications of Double Integrals ★ HW: 2, 5, 9, 13, 15
Friday	11/4	Group Quiz: Sections 15.1-15.4

Monday	11/7	Section 15.6: Surface Area ★ HW: 4, 5, 7, 11, 13
Tuesday	11/8	Homework Day: 15.5, 15.6
Wednesday	11/9	Section 15.7: Triple Integrals ★ HW: 7, 13, 17, 20, 27, 30, 33, 36
Thursday	11/10	Section 15.7: Triple Integrals
Friday	11/11	NO SCHOOL!

Multivariable Calculus: Topics and Assignments

Weeks of 11/14 and 11/21

Monday	11/14	Homework Day: 15.7
Tuesday	11/15	Section 15.8: Triple Integrals in Cylindrical Coordinates ★ HW: 1, 4, 5, 8, 9, 11, 20, 23, 29
Wednesday	11/16	Homework Day: 15.8
Thursday	11/17	Section 15.9: Triple Integrals in Spherical Coordinates ★ HW: 1, 4, 5, 10, 13, 17, 19, 27, 35, 39
Friday	11/18	Quiz: Sections 15.5-15.7

Monday	11/21	Homework Day: 15.9
Tuesday	11/22	Fun Day
Wednesday	11/23	NO SCHOOL!
Thursday	11/24	NO SCHOOL!
Friday	11/25	NO SCHOOL!

Multivariable Calculus: Topics and Assignments

Weeks of 11/28 and 12/5

Monday	11/28	NO SCHOOL!
Tuesday	11/29	Section 15.10: Change of Variables ★ HW: 3, 5, 7, 13, 15, 19, 23
Wednesday	11/30	Homework Day: 15.10
Thursday	12/1	Review
Friday	12/2	Test: Section 15.1-15.10

Monday	12/5	Section 16.1: Vector Fields ★ HW: 5, 9, 11-14, 15-18, 21, 25
Tuesday	12/6	Homework Day: 16.1
Wednesday	12/7	Section 16.2: Line Integrals ★ HW: 3, 7, 11, 15, 17, 20, 33, 41
Thursday	12/8	Section 16.2: Line Integrals
Friday	12/9	Homework Day: 16.2

Multivariable Calculus: Topics and Assignments

Weeks of 12/12 and 12/19

Monday	12/12	Section 16.3: Fundamental Theorem for Line Integrals ★ HW: 1, 5, 9, 13, 17, 20, 21, 24, 26, 33
Tuesday	12/13	Section 16.3: Fundamental Theorem for Line Integrals
Wednesday	12/14	Homework Day: 16.3
Thursday	12/15	Section 16.4: Green's Theorem ★ HW: 2, 3, 7, 10, 13, 17, 22, 23
Friday	12/16	Homework Day: 16.4

Monday	12/19	Section 16.5: Curl and Divergence ★ HW: 5, 7, 9-11, 12, 18, 19, 21
Tuesday	12/20	Homework Day: 16.5
Wednesday	12/21	Group Quiz: Sections 16.1-16.4
Thursday	12/22	Community Day/Christmas Party
Friday	12/23	NO SCHOOL!

Multivariable Calculus: Topics and Assignments

Weeks of 1/9 and 1/16

Monday	1/9	Review: 16.1-16.3
Tuesday	1/10	Review: 16.4-16.5
Wednesday	1/11	Section 16.6: Parametric Surfaces ★ HW: 3, 5, 13-18, 19, 23, 25
Thursday	1/12	Section 16.6: Parametric Surfaces
Friday	1/13	Homework Day: 16.6

Monday	1/16	NO SCHOOL!
Tuesday	1/17	Senior Trip
Wednesday	1/18	Section 16.7: Surface Integrals ★ HW: 2, 3, 5, 9, 11, 19, 21, 24, 25
Thursday	1/19	Section 16.7: Surface Integrals
Friday	1/20	Quiz: Sections 16.4-16.6

Multivariable Calculus: Topics and Assignments

Weeks of 1/23 and 1/30

Monday	1/23	Homework Day: 16.7
Tuesday	1/24	Section 16.8: Stokes' Theorem ★ HW: 1, 2, 5, 7, 10, 14, 17
Wednesday	1/25	Homework Day: 16.8
Thursday	1/26	Section 16.9: Divergence Theorem ★ HW: 1, 3, 6, 9, 12, 13, 23
Friday	1/27	Homework Day: 16.9

Monday	1/30	Review: Chapter 12 & 13 ★ HW: Make Final Formula Sheets
Tuesday	1/31	Reivew: Chapter 14 & 15 ★ HW: Make Final Formula Sheets
Wednesday	2/1	Review: Chapter 16 ★ HW: Make Final Formula Sheets
Thursday	2/2	Final Part 1: Sections 16.1-16.9
Friday	2/3	Final Part 2: Chapters 12-15
