MATH 241 Calculus IV – Fall 2021

MTRF 7:10-8:00am (Section 1) and 8:10-9:00am (Section 2)

Class web page: https://www.egcharalampidis.com/teaching/241_F21/math_241_F21/

Tentative Schedule

| Date | Lectures | Events |
|-----------------------|--|---|
| 0/00 14 | 10.6 G 1: 1 | |
| 9/20 M | 12.6 Cylinders and Quadric Surfaces | |
| 9/21 T | 14.1 Functions of Several Variables (Part I) 14.1 Functions of Several Variables (Part II) | |
| 9/23 R 9/24 F | 14.1 Functions of Several variables (Fart II) 14.2 Limits and Continuity | |
| 9/24 Г | 14.2 Limits and Continuity | |
| $9/27 \; { m M}$ | 14.3 Partial Derivatives | |
| 9/28 T | 14.4 Tangent Planes and Linear Approximations | |
| $9/30 \; R$ | 14.5 The Chain Rule | |
| $10/1 \mathrm{F}$ | 14.6 Directional Derivatives and the Gradient Vector (Part I) | Quiz #1: 12.6; 14.1-14.4 |
| $10/4~\mathrm{M}$ | 14.6 Directional Derivatives and the Gradient Vector (Part II) | |
| 10/5 T | 14.7 Maximum and Minimum Values | |
| 10/7 R | 14.8 Lagrange Multipliers (Part I) | |
| $10/8 \; { m F}$ | 14.8 Lagrange Multipliers (Part II) | Study 12.6; 14.1-14.8 for Midterm #1 |
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| $10/11 \; M$ | 15.1 Double Integrals over Rectangles (Part I) | |
| 10/12 T | 15.1 Double Integrals over Rectangles (Part II) | Review Session* |
| $10/13 \mathrm{~W}$ | No class | Quiz #2: 14.5-14.8 |
| $10/14~\mathrm{R}$ | 15.2 Double Integrals over General Regions (Part I) | |
| $10/15 \; { m F}$ | Midterm #1 (12.6; 14.1-14.8) | |
| 10/18 M | 15.2 Double Integrals over General Regions (Part II) | |
| 10/19 T | 15.3 Double Integrals in Polar Coordinates (Part I) | |
| 10/21 R | 15.3 Double Integrals in Polar Coordinates (Part II) | |
| 10/22 F | 15.4 Applications of Double Integrals (Part I) | |
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| $10/25~\mathrm{M}$ | 15.4 Applications of Double Integrals (Part II) | |
| 10/26 T | 15.6 Triple Integrals (Part I) | |
| $10/28 \; { m R}$ | 15.6 Triple Integrals (Part II) | |
| $10/29 \; { m F}$ | 15.6 Triple Integrals (Part III) | Quiz #3: 15.1-15.4 |
| 11/1 M | 15.7 Triple Integrals in Cylindrical Coordinates (Part I) | |
| 11/2 T | 15.7 Triple Integrals in Cylindrical Coordinates (Part II) | |
| $11/4~\mathrm{R}$ | 15.8 Triple Integrals in Spherical Coordinates (Part I) | |
| $11/5 \; { m F}$ | 15.8 Triple Integrals in Spherical Coordinates (Part II) | Study 15.1-15.4; 15.6-15.8 for Midterm #2 |
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| 11/8 M | 16.1 Vector Fields (Part I) | B |
| 11/9 T | 16.1 Vector Fields (Part II) | Review Session* and Quiz #4: 15.6-15.8 |
| 11/11 R | No class | Veterans' Day on Thursday, 11/11 |
| $11/12 \; \mathrm{F}$ | Midterm #2 (15.1-15.4; 15.6-15.8) | |

^{*}Please, see the Syllabus for the time and location.

| Date | Lectures | Events |
|--|--|---|
| 11/15 M 11/16 T 11/18 R 11/19 F | 16.2 Line Integrals (Part I) 16.2 Line Integrals (Part II) 16.2 Line Integrals (Part III) 16.3 The Fundamental Theorem for Line Integrals (Part I) | |
| 11/22 M 11/23 T 11/25 R 11/26 F | No class No class No class | Thanksgiving Break Thanksgiving Break Thanksgiving Break Thanksgiving Break |
| 11/29 M 11/30 T 12/2 R 12/3 F | 16.3 The Fundamental Theorem for Line Integrals (Part II) 16.4 Green's Theorem 16.5 Curl and Divergence (Part I) 16.5 Curl and Divergence (Part II) | Review Session* and Quiz #5: 16.1-16.5 |