

- 14.4 Tangent Planes and Linear Approximations
- 14.5 The Chain Rule
- 14.6 Directional Derivatives and the Gradient Vector
- 14.7 Maximum and Minimum Values
- 14.8 Lagrange Multipliers

Chapter 15:

- 15.1 Double Integrals over Rectangles
- 15.2 Double Integrals over General Regions
- 15.3 Double Integrals over Polar Coordinates
- 15.4 Applications of Double Integrals
- 15.5 Surface Area
- 15.6 Triple Integrals
- 15.7 Triple Integrals in Cylindrical Coordinates
- 15.8 Triple Integrals in Spherical Coordinates
- 15.9 Change of Variables in Multiple Integrals

Chapter 16:

- 16.1 Vector Fields
- 16.2 Line Integrals
- 16.3 The Fundamental Theorem for Line Integrals
- 16.4 Green's Theorem
- 16.5 Curl and Divergence
- 16.6 Parametric Surfaces and Their Areas
- 16.7 Surface integrals
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- 16.9 The Divergence Theorem

VI. POSSIBLE TEXTS AND REFERENCES:

Calculus Early Transcendentals, 8th edition by James Stewart

VII. STUDENT ACADEMIC MISCONDUCT POLICY:

Maintaining high standards of academic integrity in every class at Tennessee Tech is critical to the reputation of Tennessee Tech, its students, alumni, and the employers of Tennessee Tech graduates. The Student Academic Misconduct Policy describes the definitions of academic misconduct and policies and procedures for addressing Academic O kueqpf we'cv'Vgppguugg"Vgej 0"Hqt "f gvckn. "xky "vj g"Vgppguugg"Vgej a'Rqrk{"439"ó Student Academic Misconduct at [Policy Central](#).

VIII. DISABILITY ACCOMMODATION:

Students with a disability requiring accommodations should contact the Office of Disability Services (ODS). An Accommodation Request (AR) should be completed as soon as possible, preferably by the end of the first week of the course. The ODS is located in the Roaden University Center, Room 112; phone 372-6119. For details, view vj g"Vgppguugg"Vgej a'Rqrk{"562"ó Services for Students with Disabilities at [Policy Central](#).