

## MATH 116 – INTERMEDIATE CALCULUS III

**Semester:** Summer 2008  
**Instructor:** Mefharet Kocatepe  
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### Exams & Grading:

- **Midterm 1** (25%) June 21, 2008, Saturday, 10.00-12.00
- **Midterm 2** (25%) July 5, 2008, Saturday, 10.00-12.00
- **Final Exam** (35%) July 26, 2008, Saturday, 10.00-12.00
- **Quizzes/Homework** (15%)

**Course Schedule:** Monday Room  
 Wednesday Room  
 Friday Room

**Textbook:** *Thomas' Calculus, 11-th (international) edition, Pearson 2005.*  
**75% Attendance is Obligatory**

Day		Subject
#1	June 9	Limits and Continuity of Functions of Several Variables (14.1, 14.2)
#2	June 11	Partial Derivatives, Chain Rule (14.3, 14.4)
#3	June 13	Directional Derivatives, Gradient, Tangent Planes (14.5, 14.6)
#4	June 16	Extreme Values (14.7)
#5	June 18	Lagrange Multipliers (14.8)
#6	June 20	Taylor's Formula for Two Variables (14.10)
#7	June 23	Polar Coordinates. Graphing in polar coordinates. Double Integrals (10.5, 10.6, 15.1)
#8	June 25	Areas as Double Integrals. Double Integrals in Polar Form (15.2, 15.3)
#9	June 27	Cylindrical and Quadric Surfaces. Triple Integrals in Rectangular Coordinates (12.6, 15.4)
#10	June 30	Triple Integrals in Cylindrical and Spherical Coordinates (15.6)
#11	July 2	Substitution in Multiple Integrals (15.7)
#12	July 4	Vector valued function, arc length and unit tangent vector (13.1, 13.3)
#13	July 7	Line integrals, Vector Fields (16.1, 16.2)
#14	July 9	Path independence, Potential Functions (16.3)
#15	July 11	Green's Theorem (16.4)
#16	July 14	Surface Integrals (16.5, 16.6)
#17	July 16	Stokes' Theorem (16.7)
#18	July 18	The Divergence Theorem (16.8)