## SUMMER 2008

## MATH 116-06 - INTERMEDIATE CALCULUS III

| Instructor: | Ali Sinan Sertöz |
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| Office: | Room SA-121 |
| Office Hours: | Tuesday 13:40-15:30 |
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## Exams \& Grading:

- Midterm 1 (25\%)
- Midterm 2 (25\%)
- Final Exam (35\%)
- Quizzes/Homework (15\%)

Course Schedule: Monday
Wednesday
Friday

June 21, 2008, Saturday, 10.00-12.00 July 05, 2008, Saturday, 10.00-12.00 July 26, 2008, Saturday, 10.00-12.00

13:40-16:30 Room BZ02
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Textbook: Thomas' Calculus, 11-th (international) edition, Pearson 2005.

## At Least 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 Inte- <br> grals (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 Co- <br> ordinates (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) |
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