

COURSE SYLLABUS
MATH 152 (CALCULUS - II (4-2)5)
2008-2009, Fall Term

Instructors : Assist. Prof. Dr. Erdal KARAPINAR, FEF-216 (Coordinator)
Dr. Ferihe ATALAN, FEF-207

Catalog Data: Infinite Series, Vectors in the Plane and Polar Functions, Vectors and Motions in Space, Multivariable Functions and Their Derivatives, Multiple Integrals, Double Integrals, Areas, Double Integrals in Polar Form, Triple Integrals in Rectangular Coordinates, Triple Integrals in Cylindrical and Spherical Coordinates.

Textbook: Thomas' Calculus Early Transcendentals, 11th Edition 2006, Media Upgrade, Addison Wesley.

References:

- 1) Calculus: A New Horizon, Anton Howard, 6th Edition; John Wiley & Sons.
- 2) Calculus: A Complete Course, R.A. Adams, 3rd Edition; Addison Wesley.
- 3) Calculus with Analytic Geometry, C.H. Edwards; Prentice Hall.
- 4) Calculus with Analytic Geometry, R. A. Silverman; Prentice Hall.

Prerequisite: Math 151

Goals: Math 152 is designed as a second semester course. It covers all the material-techniques of integration, vectors and infinite series needed for a multivariable calculus course. It encourages students to investigate mathematical ideas, techniques and processes graphically and numerically, as well as algebraically.

Make-up: Make-up exams will be given only if the proper medical documentation for the absence is received. Do not forget that the medical report must be submitted to student affairs in three days after the last day of the report. Otherwise, it will not be accepted.

Exam Dates and Grading Policy:

Exam	Ratio	Exam Date
Midterm I Exam	30%	November 01, 2008
Midterm II Exam	30%	December 20, 2008
Final Exam	40%	Will be announced

REMARK:

- 1) All the students should **provide** student **ID** cards to proctors to serve as identification. Any student without an **ID** card **can not** take the exams.
- 2) The students who are going to take **make-up** exam for exams I and II, should see the coordinator of the course until the date **January 5, 2009**

Attendance Policy

Attendance is an essential requirement of this course. Any student should attend **more than %80** lecture hours: If you do attend less than %80 of the lecture hours, you will get an **NA grade**. Class begins promptly and you are expected to be present. Late students will not be accepted.

COURSE CHART

Week	Date	Section Covered and Comments
1	Sept. 18-19, 2008	Sequences
2	Sept. 22-26, 2008	Sequences (Be continued) Infinite Series
3	Sept.29-Oct. 3, 2008	HOLIDAY
4	Oct. 6-10, 2008	The Integral Test, Comparison Tests, The Ratio and Root Tests
5	Oct. 13-17, 2008	Alternating Series, Absolute and Conditional Convergence, Power Series
6	Oct. 20-24, 2008	Taylor and Maclaurin Series, Convergence of Taylor Series; Error Estimates, Application of Power Series
7	Oct. 27-31, 2008 (Oct.29 Holiday)	Three-Dimensional Coordinate System Vectors The Dot Product
8	Nov. 3-7, 2008	The Cross Product Lines and Planes in Space Cylinders and Quadric Surfaces
9	Nov. 10-14, 2008	Functions of Several Variables Limits and Continuity in Higher Dimensions Partial Derivatives
10	Nov. 17-21, 2008	The Chain Rule
11	Nov. 24-28, 2008	Directional Derivatives and Gradient Vectors Tangent Planes and Differentials
12	Dec. 1-5, 2008	Extreme Values and Saddle Points Lagrange Multipliers
13	Dec. 8-12, 2008	HOLIDAY
14	Dec. 15-19, 2008	Double Integrals Areas, Moments, and Centers of Mass (only areas are included)
15	Dec. 22-26, 2008	Double Integrals in Polar Coordinates
16	Dec. 29, 2008 -Jan. 2, 2009 (Jan. 01 Holiday)	Triple Integrals in Rectangular Coordinates Triple Integrals in Cylindrical and Spherical Coordinates
17	Jan. 5-7, 2009	Review

Note:

- 1) The content of this syllabus can be reformed by the coordinator at any time by informing the related department's head.
- 2) The student is supposed to be aware of the facts and notices written in this syllabus.
- 3) All announcements about the course will be in the web-page of the course.
(Official webpage of the course Math 152 <http://math.atilim.edu.tr/~math152/>)