Math 5B - Syllabus
Vector Calculus
Summer Session A 2010

Course:

Lecture: MTWRF 8:00AM-9:10AM, PHELPS 1448

Webpage: http://www.math.ucsb.edu/~plunkett/MATH_5B/index.html

Textbook: <u>Vector Calculus</u>, Miroslav Lovrić, ISBN 978-0-470-89578-8

Lecturer:

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Office Hours: Mondays and Thursdays, 1:00pm-2:30pm, or by appointment

Course Description:

Math 5B is the first quarter of a two quarter sequence in vector calculus. The text is Vector Calculus by M. Lovric. The course covers chapters 2 through 8, including the following topics:

∗ functions of several variables
∗ vector-valued functions of one variable
∗ scalar and vector fields
∗ path integrals
∗ double and triple integrals
∗ surface integrals, properties, and applications
∗ Green's theorem, the divergence theorem, Stokes' theorem

Grading:

Homework: 30%

Midterm: 30%

Final: 40%

Homework:

Homework will all be done online through the WebWork system. To access webwork for this course, visit http://webwork.math.ucsb.edu, and click on the link for Math 5B in summer session A.

Resources:

Mathlab: The math department offers free walk-in tutoring and extra help through the math lab. It is located in South Hall 1607. It is open from 10:00am to 4:00pm every day from Monday to Thursday, and from 12:00pm to 3:00pm on Fridays.

CLAS: CLAS also offers free individual and small group tutoring. These programs are very successful, and students generally find these programs helpful. For details on their programs visit http://www.clas.ucsb.edu.

Academic Dishonesty:

You may work together on homework but all other work must be done on your own. Cheating will result in a failing grade and will be reported to the Office of Judicial Affairs. Please check

http://judicialaffairs.sa.ucsb.edu/StudentResources.aspx

for more details.

Schedule:

- *June 21*: Sections 2.1 and 2.2
- *June 22*: Sections 2.3 and 2.4
- *June 23*: Sections 2.5 and 2.6
- *June 24*: Section 2.7
- *June 25*: Section 2.7 - Homework 1 due
- *June 28*: Sections 3.3 and 3.4
- *June 29*: Section 3.5 - Homework 2 due
- *June 30*: Section 4.1
- *July 1*: Section 4.3
- *July 2*: Section 4.4 - Homework 3 due
- *July 5*: No Class
- *July 6*: Sections 4.5 and 4.6 - Homework 4 due
- *July 7*: Sections 5.1 and 5.2
- *July 8*: Section 5.3
- *July 9*: **Midterm**
- *July 12*: Sections 6.1 and 6.2
- *July 13*: Section 6.3 - Homework 5 due
- *July 14*: Section 6.4
- *July 15*: Section 6.5
- *July 16*: Section 7.1 - Homework 6 due
- *July 19*: Section 7.2
- *July 20*: Section 7.3 - Homework 7 due

- *July 21*: Section 7.4
- *July 22*: Section 7.5
- *July 23*: Section 8.1 - Homework 8 due
- *July 26*: Section 8.2
- *July 27*: Section 8.3
- *July 28*: Review
- *July 29*: Review
- *July 30*: **Final**