

MATH 243 – Section 010

Analytic Geometry and Calculus C

Fall 2014 - SYLLABUS

Important information

- Instructor: Francisco J Sayas (Office: Ewing 532. Email: fjsayas@math.udel.edu)
- Lecture times: MWF 8:00am-8:50am. Gore Hall 103
- Office hours: M 1pm-2:30pm. W 9:00am-10:30am. If you cannot make it at these hours, contact me (in person in class, or by email) and we will find a time that works.
- Discussion times:
 - Section 020D. Interdisciplinary Sci Engr 222. Tu 9:30am-10:20am.
 - Section 021D. Interdisciplinary Sci Engr 205. Tu 8:00am-8:50am.
- Computer lab times:
 - Section 020L. Colburn Lab 046. Th 9:30am-10:20am.
 - Section 021L. Ewing Hall 101. Th 8:00am-8:50am.
- Teaching assistants:
 - Discussion: Allan Hungria (allanh@udel.edu)
 - Laboratory: Thomas Brown (tsbrown@udel.edu)
- Website: www.math.udel.edu/~fjsayas/math243 It contains a detailed schedule of lectures, due dates for homework assignments, exam and quiz dates, etc. There is a list of recommended homework problems at the end of this document. Additionally, there will be a list in the **schedule page online**.
- Course description: Vectors, operations on vectors, velocity and acceleration, partial derivatives, directional derivatives, optimization of functions of two or more variables, integration over two and three dimensional regions, line integrals, Green's Theorem. Includes use of computers to perform symbolic, numerical and graphical analysis.

Materials needed for this course

- **Textbook.** James Stewart. *Calculus – Early Transcendentals, 7th edition*. (We will cover Chapters 12 to 16)
- **Online homework.** WebAssign access to homework online (key: udel 2724 9429)
- Mathematica will be used for the lab sessions (available at UDeploy)
- The university bookstore offers a bundle to students who intend to take MATH 243, *Calculus for 241, 242, 243 UDEL edition*, with multi-semester access to Enhanced WebAssign Calculus Multi-term courses.

- Students who took MATH 241 or MATH 242 at UD may continue to use their textbooks for MATH 243. Their multi-term WebAssign access will be activated with the same user name and password as in MATH 241-242 and with a new class key (see above). Students who took previous classes with no WebAssign use can purchase one-term WebAssign access separately at (www.webassign.net/support/student-support) (class key needed)

Evaluation

- There will be two midterm exams and a final exam, common for all sections.
- There will be three long quizzes (25 minute each) in lecture time.
- The grade will be complemented with the results of Homework Assignments (online), Lab Reports (uploaded to Sakai), and short quizzes in discussion time.
- **The use of calculators will be prohibited in all exams.**
- The final exam is cumulative and could be scheduled on any of the final exam days. The precise date will be announced as soon as it is known.
- Exam absences due to recognized University related activities, religious holidays, verifiable illness, and family/medical emergencies will be dealt with on an individual basis. Consult the University Attendance Policies online (academiccatalog.udel.edu) in case of doubt.
- Students with disabilities should contact DSS (www.udel.edu/DSS) and follow their instructions. They are expected to contact the instructor with
- **Grade distribution:** this is a table of the minimum grade (percentage of the total grade) that you need to obtain the corresponding grade.

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
92	88	84	80	77	74	71	68	65	62	59	

- How the grade is computed

		Percentage of total grade
First midterm exam	October 6, Monday, at 5pm	20%
Second midterm exam	November 10, Monday, at 5pm	20%
Final exam	December - Date TBD	30%
Homework (WebAssign)	Approx. 12 assignments (due Wednesday at 8am)	10%
Lab reports (Sakai)	Approx. 12 assignments	10%
Quizzes	3 in-class quizzes + several discussion quizzes	10%
TOTAL		100%

Attendance policy

We will conduct the class under the presumption that you have attended all lectures, labs, and discussion sections. In particular, you are responsible for any announcements made in class.

Academic honesty

As worded by the University of Delaware, All students must be honest and forthright in their academic studies. To falsify the results of one's research, to steal the words or ideas of another, to cheat on an assignment, or to allow or assist another to commit these acts corrupts the educational process. Students are expected to do their own work and neither give nor receive unauthorized assistance. Any violation of this standard must be reported to the Office of Student Conduct. For more details, check (www.udel.edu/stuguide/14-15/code.html#honesty). *Cheating of any kind (even if the student does not take any advantage from it) will be grounds for an F grade.*

Suggested List of Textbook Problems from “Calculus- Early Transcendentals” by J. Stewart, 7th edition.

The following list of problems includes problems that address students’ needs for both mastering the calculus material and solving a variety of applied problems using many problem solving techniques. The student aiming for an A grade in the course should master problems from all clusters in a homework set.

12.1: 1-34, 40-42

12.2: 1-13, 15-19, 21, 23-29, 32, 35, 37-41, 43-45, 47

12.3: 1-13,17,19,23,25,27,28,33,38,41-43,45,47,48,54-58,60,63,64

12.4: 1-20, 27-29, 31, 33-39, 41, 43-49, 53

12.5: 1-12,15,19-22,25-27,31,33,35,37-43,45,48-51,53,57,58,61,63,65-74,76-79.

12.6: 1-8, 11-14, 16-19, 21-34, 45, 46, 49, 50

13.1: 1, 2, 5, 9, 11-13, 17, 19, 21-30, 39-44, 47, 48, 50

13.2: 3, 5, 9, 15, 18, 19, 24, 25, 33-35, 41, 42

13.3: 3-5, 7-9, 11, 12, 17, 19, 23, 24, 27, 29-33

13.4: 1, 2, 3, 11, 15, 17-19, 25, 37, 39, 41, 45

14.1: 9, 10, 15, 19, 25, 27, 29, 30, 32-34, 36, 37, 43, 47, 49, 59-64

14.2: 5-22, 29, 33

14.3: 3, 4, 15-41, 47, 51-53, 59, 63, 68, 73, 83

14.4: 1, 3, 5, 6, 11, 25, 31

14.5: 1, 2, 5, 7-9, 11-17, 23, 25, 27-35, 39, 40, 43, 45, 50, 55

14.6: 1-3,5,11,13,15,17,19-21, 25-35, 41, 43, 45, 49, 50, 54, 55, 57, 60, 61, 63, 64a

14.7: 1-5, 7, 11, 13, 25, 27, 30, 31, 34-38, 41, 43, 46, 51, 52

14.8: 2, 3, 9, 11-17, 19-23, 31, 34, 36, 37, 42-46.

15.1: 1a, 3, 5, 11-13

15.2: 1-27

15.3: 1-7, 14, 15, 17, 19, 45-56, 63, 66

15.4: 1-6, 11, 13-18, 29, 31, 32, 38, 40, 41

15.5: 1, 5, 8, 10, 13, 15, 16, 25, 26

15.6: 1-3, 9-12

15.7: 3-8, 13, 19, 20, 31-35, 40, 54, 55a

15.8: 1, 3, 5-12, 15, 16, 18-21, 23, 24, 25a, 29, 30

15.9: 1-13, 15, 17-21, 23, 26, 29, 30, 35, 36

16.1: 1, 5-9, 11-13, 15, 17-19, 21-24, 26

16.2: 1-11, 15, 17-21, 29

16.3: 1-7, 11-15, 19, 20, 25, 29, 35

16.4: 1, 2, 5, 7, 9, 11, 12, 13

16.5: 1, 2, 3, 5, 7, 9-16, 19, 20, 25, 30, 31

16.6: 1-5, 13-19, 23, 24, 26, 33-36, 39, 49

16.7: 5, 9, 13, 15, 16, 17, 23, 27

16.9: 1-7, 18, 19

This syllabus is subject to changes