

# Math 152 (Calculus II), Sections 528-530

## Spring 2013

**Instructor:** Dr. Mariya Vorobets

**Class hours :** TR 11:10–12:25, HELD 113

**Web page:** <http://math.tamu.edu/~mvorobet/Math152/S13/>

**Office:** Milner 005, e-mail: [mvorobet@math.tamu.edu](mailto:mvorobet@math.tamu.edu)

**Office hours:** Tuesday 1:00–2:00, Wednesday 2:00–4:00 or by appointment

### Recitations:

528	W 11:30–12:20	CE 136
529	W 12:40–1:30	CE 203
530	W 1:50–2:40	CE 223

### Labs:

528	M 11:30–12:20	BLOC 126
529	M 12:40–1:30	BLOC 124
530	M 1:50–2:40	BLOC 124

**Teaching assistant.** Cong Gu; e-mail: [gucong@math.tamu.edu](mailto:gucong@math.tamu.edu)

**Learning Outcomes.** This course is to provide students with quantitative and problem-solving skills of integral calculus, power series, and 3-D vectors. At the conclusion of this course, students should be able to:

- Apply techniques of integration to a variety of applications, including engineering applications
- Understand and explain convergence of sequences and infinite series
- Apply power series to a variety of applications, including engineering applications
- Understand and apply vector operations in 3-dimensions, including dot and cross product
- Use Computer Algebra Systems such as Matlab to solve non-routine problems

**Prerequisite.** MATH 151 or equivalent.

### Texts.

- J. Stewart, CALCULUS. Early Vectors, Aggie Edition, Thompson Publishing, Brooks/Cole, ISBN 0534493483
- A. Gilat, MATLAB: An Introduction with Applications, 3rd Edition, Wiley Publishing, ISBN 0470108770

**Course Web Page.** The course web page will be my main source of communication to you aside from class and office hours. Check the course page regularly for announcements, exam information and the course schedule.

The Mathematics Department has a web-page for Math 152

<http://www.math.tamu.edu/courses/math152/>

Here you can find a description of the course, approximate weekly schedule, past exams, help session schedules and other information.

**Email Policy.** Check your official TAMU email account EVERY day. You are responsible for any information I send via email. Because of the privacy rights, I cannot discuss grades via email or over the phone. Please include your name and the section number in the subject line.

**Online homework.** Homework will be assigned online on the Webassign system for each section and will be due regularly. You may use scratch paper, calculators etc. on the online homework. The deadlines are programmed into the computer system, so submitting your homework well before the deadline is recommended. If you submit your homework late, the computer will automatically give you a zero for the assignment and not record your answers. You are responsible for remembering to do the homework. The lowest five homework grades will be dropped at the end of the semester. For more information see <http://www.math.tamu.edu/ehmwk/>

**Suggested homeworks.** Selected problems from your textbook will be assigned but NOT graded. You are strongly recommended to do all of them which will provide a valuable practice for both on-line HWs and exams. For list of suggested HWs see:

<http://www.math.tamu.edu/courses/math152/currenthw.html>

**Computer labs.** Computer labs will be assigned in section each week with breaks for the exams. These assignments will be done in a group. Groups will be assigned in section during the first week of classes.

**Quizzes.** Quizzes will be given regularly, almost every week (except exam weeks) during the recitation meeting on Thursdays. All of them are mandatory, although, a couple of worst grades will be dropped at the end of the semester. That is why, NO MAKE UP QUIZZES.

Each student has to buy pack of 15 ScanTron Forms 815E, and turn in to the TA before the 1st quiz.

**Grading.** Your grade will be determined by three exams, a cumulative final exam, and a laboratory grades. The weights of each of these are as follows.

Exam I	1/6 of course grade	Feb. 14
Exam II	1/6 of course grade	March 21
Exam III	1/6 of course grade	Apr. 23
Final Exam	1/4 of course grade	May 3
Homework	1/20 of course grade	
Quizzes	1/10 of course grade	
Lab reports	1/10 of course grade	

You must bring either your student ID or your driver's license to each of the above exams. There will be no extra credit under any circumstances. Exams I, II and III are common exams (same exam is given for all sections of Math 152) and are administered in the evenings from 7:30-9:30 PM in HELD 100.

A two-hour comprehensive FINAL exam will be given on Friday, May 3, at 3:00 - 5:00 in the classroom.

I may curve any grade and will then compute the course grade by the following rule: A for at least 90% points, B for at least 80% points, C for at least 70% points, D for at least 60% points and F for less than 60% points.

**Help Sessions and Week-in-Review.** The Mathematics Department offers help sessions for Math 152 students. See

<http://www.math.tamu.edu/courses/helpsessions.html> for more information.

Also there will be a week-in-review conducted by Amy Austin. The dates and times will be announced in class. Problems will be posted before each session. See

<http://www.math.tamu.edu/~amy.austin/livewirmath152.html> for week-in-review information.

## Weekly Schedule

- Week 1** Sections 6.4, 6.5, 7.1. Review of the Fundamental Theorem of Calculus, integration by substitution, area
- Week 2** Sections 7.1, 7.2. Area ctd, volumes by slicing, disks, washers
- Week 3** Sections 7.3, 7.4. Volume by cylindrical shells, work
- Week 4** Sections 7.5, 8.1, 8.2. Average value, integration by parts, trigonometric integrals
- Week 5** Sections 8.3, 8.4. Trigonometric substitution, partial fractions. **Exam 1** (Covers through Section 8.2).
- Week 6** Sections 8.9, 9.3, 9.4. Improper integrals, arc length, surface area of revolution.
- Week 7** Section 10.1, 10.2. Sequences and Series
- Week 8** Sections 10.2, 10.3. Series, convergence tests
- Week 9** Section 10.4. Absolute Convergence, convergence tests. **Exam 2** (Covers through Section 10.3).
- Week 10** Sections 10.5, 10.6. Power Series, representing functions as power series
- Week 11** Sections 10.7, 10.9. Taylor and Maclaurin Series, applications of Taylor series
- Week 12** Section 11.1, 11.2. 3 D coordinates, vectors, dot product
- Week 13** Section 11.3. Cross Product. Thanksgiving falls on this week in the fall.
- Week 14** 11.4. Polar Coordinates. **Exam 3** (Covers through Section 11.3).
- Week 15** Review for Final. Last week of class has redefined days. See Important Dates for more details.

**Make-up Policy.** No make-ups will be given without written evidence of an official University excused absence (see *University Student Rules*). In addition, you must notify me **NO LATER** than the end of the second working day after the missed assignment:

... the student must notify his or her instructor in writing (acknowledged e-mail message is acceptable) prior to the date of absence if such notification is feasible. In cases where advance notification is not feasible (e.g. accident or emergency) the student must provide notification by the end of the second working day after the absence. This notification should include an explanation of why notice could not be sent prior to the class. (Section 7.3 of the *University Student Rules*)

**\*\*\*If no such notice is given, the rights to a make-up are forfeited.** Specifically, in the case of injury or illness, students are required to obtain a confirmation note from a health care professional affirming date and time of a medical office visit regarding the injury or illness. I will NOT accept the "Explanatory Statement for Absence from Class" form as sufficient written documentation of an excused absence.

**Late Work Policy.** Late work (for which you do not have a University approved excused absence) will NOT be accepted. This includes all written and online assignments.

**Scholastic Dishonesty.** Copying work done by others, either in-class or out-of-class, is an act of scholastic dishonesty and will be prosecuted to the full extent allowed by University policy. Collaboration on assignments, either in-class or out-of-class, is forbidden unless I grant permission. If you cheat on an assignment, you will receive a zero. Also, you will be reported to the University.

Remember the Aggie Code of Honor: **"An Aggie does not lie, cheat, or steal or tolerate those who do."**

For more information about the Honor Council Rules and Procedures visit the web site: <http://www.tamu.edu/aggiehonor>

**Copyright notice.** All course materials (both printed and web-based) are protected by U.S. Copyright Laws. No multiple copies can be made without written permission by the instructor.

**Students with disabilities.** The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit <http://disability.tamu.edu>