Syllabus for Math 152

Spring 2013

Instructor: Jennifer Lewis.
Office: Blocker 630A
Office hours: MWF 11-1, Tues 10-1 Thurs 12-3
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My website: www.math.tamu.edu/~jlewis
At my website you will find my course materials at my Math 152 page.

The departmental Math 152 Course Home Page URL address is
http://calclab.math.tamu.edu/docs/math152/
Here you will find the times and location for the common exams.

Course Description: Credit 4. Integration techniques and their applications (area, volumes, work), improper integrals, analytic geometry, vectors, infinite series, power series, Taylor series, computer algebra (Matlab). Prerequisite: Math 151 or equivalent. Credit will not be given for more than one of Math 148, 152, 172.


My 152 classes: All lectures are MWF. If you miss one, you may attend another.
Sections 513-515 1:50-2:40 Held 111
537-539 8:00-8:50 Held 111
801-804 9:10-10:00 Held 109

Online Homework: Online homework is required in all math 152 classes. These online homework assignments can be accessed anytime day or night, from any computer with a connection to the internet and a Web browser. All information:
regarding online homework can be found at http://www.math.tamu.edu/courses/eHomework. Practice assignments are not for a grade and are not really due. You should also do the suggested problems in the text book listed on my website. The webassign homework is not enough practice.

Quizzes: You will have a quiz in recitation each week. The quiz problems will be similar to suggested problems in the text book problems and/or problems done in class. There will also be occasional quizzes in lecture.

Grading: Your grade will be determined by three exams, a cumulative final exam, a laboratory grade, a homework grade and a quiz grade. The points of each of these out of 600 total are as follows:

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<tr>
<th></th>
<th>Exam I</th>
<th>Exam II</th>
<th>Exam III</th>
<th>Final</th>
<th>Matlab</th>
<th>Webassign</th>
<th>Quizzes</th>
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<td>90-100%</td>
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<td>479</td>
<td>360</td>
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Exams I, II and III are common exams (the same exam is given for all sections of Math 152) and are administered in the evenings from 7:30-9:30pm. Copies of old exams are available on the web. The final is comprehensive and is given in your lecture room according to the final exam schedule. The final is not a common exam and is written by me. The format will be discussed later in the course. (See weekly schedule below)

Make-ups for exams and quizzes will only be given with documented University-approved excuses (see University Regulations).

Where to get Help: My office hours are for you. You do not need an appointment to come to office hours. If you cannot come during those hours, please let me know, other times can be arranged.

Week in Review: The week in review is a 2-hour review of the week just completed. You are highly encouraged to attend. WIR is taught by Amy Austin;
time and place will be announced in class. Before you go to WIR, print the problems from the WIR website which will be posted on my webpage soon.

**Streaming Videos:** Streaming videos by Amy Austin are available at http://www.math.tamu.edu/~amy.austin/wirmath152.html

**Help Sessions:** Help sessions are question and answer sessions on a drop in basis. This schedule will be announced in class and can be found at http://www.math.tamu.edu/teaching/helpsession/

**Academic Integrity Statement:** "An Aggie does not lie, cheat or steal or tolerate those who do." Please see the Honor Council Rules and Procedures on the web at http://www.tamu.edu/aggiehonor.

**Students with Disabilities:** The American 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 the Department of Student Life, Services for Students with Disabilities, in Room 126 of the Koldus Building or call 845-1637.

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**Tentative Weekly Schedule**

- **Week 1 Jan 14-Jan 18**
  - Sections 6.4–6.5, 7.1
  - Review of the Fundamental Theorem of Calculus, integration by substitution, area

- **Week 2 Jan 21-Jan 25**
  - Sections 7.1–7.2
  - Area, volumes by slicing, disks, washers

- **Week 3 Jan 28-Feb 1**
• Sections 7.3–7.4
  Volume by cylindrical shells, work

• Week 4 Feb 4-Feb 8
  • Sections 7.5, 8.1–8.2
    Average value, integration by parts, trigonometric integrals

• Week 5 Feb 11-Feb 15
  8.3, 8.4
  Trigonometric substitution, partial fractions

• Review and Exam 1 (Covers through Section 8.2 or 8.3 to be announced)

• Week 6 Feb 18 - Feb 22
  • Sections 8.9, 9.3, 9.4
  • Improper integrals, arc length, surface area of revolution
  • (Section 8.8 on Numerical integration will be done in lab)

• Week 7 Feb 25 - Mar 1
  Sections 10.1–10.2
  Sequences, Series

Week 8 Mar 4 - Mar 8
  Sections 10.2, 10.3
  Series, convergence tests

Spring Break March 11-March 15

• Week 9 Mar 18-Mar 22
  • Review and Exam 2 (Covers through Section 10.2 or 10.3 to be announced)

• Week 10 Mar 25-Mar 28 Friday Mar 29 is Good Friday and is a reading day, no classes
  • Sections 10.4, 10.5, 10.6
    Series, convergence tests, Power series, representing functions as power series

• Week 11 Apr 1-Apr 5 Sections 10.7, 10.9
Taylor and Maclaurin series, applications of Taylor series

Week 12 Apr 8 - Apr 12
Sections 10.7, 10.9
Taylor and Maclaurin series, applications of Taylor series

Week 13 Apr 15-Apr 19
Section 11.1-11.3
3D coordinates, vectors, dot product, cross product.

Week 14 Apr 22-Apr 26
Review and Exam 3 (covers through 11.2 or 11.3 to be announced)

Week 15 Apr 29 and Tues Apr 30 Tuesday, Apr 30 is redefined as a Friday, attend all Friday classes.
Section 13.4
Polar coordinates

Final Exam Schedule Sections 513-515 Tues, May 7 3:30-5:30 pm
537-539 Fri, May 3 10:00 am- noon
801-804 Mon, May 6 8:00 - 10:00 am