Math 122 Calculus II Spring 2015 Syllabus
http://www.math.drexel.edu/classes/math122/201435/

It is the prerogative of the Math 122 team to change the course during the term at our discretion. Any changes will be communicated via the course website, so be sure to check it frequently. Course announcements, exam information, and other details will be regularly posted to the course website.

You are expected to be fully aware of the following policies and expectations, so review this information carefully and ask your instructor if you have further questions.

Prerequisites

Students entering Math 122 are expected to have completed and passed Math 121 or its equivalent. If you earned a D in Math 121, you should consider retaking it. Any questions regarding your readiness for the course should be resolved immediately.

Coordinators

Dr. Huilan Li  hl377@drexel.edu
Dr. Marci Perlstadt  mperlstadt@math.drexel.edu

Course Description and Learning Outcomes

The subject matter of the course is integration of single-variable functions, including various integration techniques and applications. Upon successful completion of Math 122, you should be able to

- Understand the Fundamental Theorem of Calculus and how it relates differentiation and integration.
- Demonstrate proficiency in integration techniques such as substitution, parts, trigonometric substitution and partial fractions.
- Use the definite integral to solve physical problems such as area, volume and arc length calculations.
- Be able to solve separable ordinary differential equations using the technique of separation of variables.
- Demonstrate knowledge of the polar coordinate system, including the techniques and applications for differentiating and integrating polar functions.

Attendance

Regular attendance is essential for success in Math 122. You are responsible for everything announced in class and everything discussed in class. The quarter system moves very quickly—if you do not do your work regularly, it is easy to fall behind. Your instructor may use your attendance to assign plus or minus on your course grade.
Recommended Textbook

We do not require that you purchase any particular calculus textbook. However, we do recommend that you have a calculus book or electronic resource available to use as a supplemental reference to the material discussed in lecture.

Our calculus courses will follow the order of *Calculus: Early Transcendentals*, 10th edition, by Howard Anton. We have worked with the Wiley Publishing Company to offer this book at a discounted rate when purchased via the following website:

http://www.wiley.com/WileyCDA/Section/id-817840.html

There are options for the full book (with all chapters) or a custom book containing chapters 1-4 (which is meant for students who intend to take ONLY Math 121). Both options have the choice of being a loose-leaf printed copy or a digital copy which is downloadable on up to two devices.

Other textbooks, e-books, and old editions are also acceptable resources

Assigned Practice Problems

For each section covered in class we have crafted assigned problems which have been chosen to illustrate important concepts and techniques that you are expected to master. These problems can be found on the main course website. They are for your benefit and should be worked regularly and in detail. It is only by doing the problems yourself that you will acquire the skills needed for proficiency in the course. Some of these problems will be discussed in lecture, but it is your responsibility to do the work and look at all of the problems. These problems will not be turned in or graded. **The exams problems are based on the assigned practice problems.**

Tutoring Services

In addition to your instructor's office hours, you can receive extra assistance in the Math Resource Center (MRC) located in Korman 249. The MRC is staffed by faculty and teaching assistants who can help you with your math courses. No appointment is necessary. Hours and staff schedules can be found at:

http://drexel.edu/math/resources/undergraduate/mrc/

DO NOT WAIT –GET HELP AS SOON AS YOU EXPERIENCE DIFFICULTY.

In-Class Quizzes

There will be 7 in-class quizzes, worth 10 points each. Your in-class quiz grade will be the total number of points obtained (70 possible) divided by 60. As a result, you can earn
over 100% for your final quiz grade. **There are no make-up quizzes. You must be present in your scheduled class to take the quiz.**

**Exams**

There will be two midterm exams during the term. These will be common exams (all students take the exam at the same time) given during the 8:00 - 8:50 a.m. exam period. The tentative coverage of each midterm exam is as follows:

Exam 1: Friday 04/24 (Week 4), 8-8:50 am Chapters 5.2 - 5.6, 5.9, & 6.1  
Exam 2: Friday 05/22 (Week 8), 8-8:50 am Chapters 6.2, 6.4, 7.2-7.5, & 7.8

An announcement about the exact coverage of the exam as well as the room assignments will be posted to the main course webpage at least one week prior to the exam date. There will be a SINGLE make-up exam for anyone who misses one of the two regularly scheduled exams. It will be given during the 10th week of the term (exact details will be posted on the course website) and will be comprehensive for the material covered on exams 1 and 2.

There will be a cumulative two-hour final exam scheduled during the final exam week at the end of the term. The exact date and time is to be determined by the registrar. **Do not make travel plans until after the announcement of the exam is made. You are expected to take the exam at the time scheduled by the registrar!**

Your University ID is REQUIRED for all exams. You must know your section number for all exams. All exams are closed book and closed notes. Calculators or other electronic devices are not permitted for any of the exams. Using such a device during an exam will be considered a violation of the university's academic honesty policy.

**Course Grades**

Your grade will be computed in two different ways (see below). The grade that you earn for the course will be the higher of these options:

<table>
<thead>
<tr>
<th></th>
<th>Option 1</th>
<th>Option 2</th>
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<tbody>
<tr>
<td>Quizzes</td>
<td>20%</td>
<td>20%</td>
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<tr>
<td>Lower Midterm</td>
<td>25%</td>
<td>15%</td>
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<tr>
<td>Higher Midterm</td>
<td>25%</td>
<td>25%</td>
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<tr>
<td>Final Exam</td>
<td>30%</td>
<td>40%</td>
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The letter grade you receive will be based on your course average as follows:

90 - 100 A  
80 - 89 B  
70 - 79 C  
60 - 69 D  
0 - 59 F

*Plus and minus will be assigned at the discretion of the instructor.*
Disabilities and Accommodations

Students with disabilities requesting accommodations and services at Drexel University need to present a current accommodation verification letter (AVL) to faculty before accommodations can be made. AVL's are issued by the Office of Disability Resources (ODR). For additional information, contact ODR:

www.drexel.edu/odr
3201 Arch St., Street, Suite 210
Philadelphia, PA 19104
215.895.1401 (V)
215.895.2299 (TTY).

Academic Honesty

Cheating and other forms of academic misconduct are serious offenses and are dealt with harshly (e.g. at the very least a 0 on the exam or quiz and a letter sent to the Office of Student Conduct.) Please do not make us have to deal with this: it’s not fun for anyone. A copy of the student code of conduct in the student handbook can be found at

http://www.drexel.edu/provost/policies/academic_dishonesty.asp

Course Drop & Withdrawal Policies

Students should be familiar with the following policies:

http://www.drexel.edu/provost/policies/course_drop.asp
<table>
<thead>
<tr>
<th>Week</th>
<th>Topics</th>
<th>Sections</th>
<th>Announcements</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>The Indefinite Integral Integration by Substitution</td>
<td>5.2</td>
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<td>5.3</td>
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<td>2</td>
<td>Area as a Limit &amp; Sigma Notation The Definite Integral</td>
<td>5.4</td>
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<td>5.5</td>
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<tr>
<td>3</td>
<td>The Fundamental Theorem of Calculus Definite Integrals by Substitution</td>
<td>5.6</td>
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<td></td>
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<td>5.9</td>
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<tr>
<td>4</td>
<td>Area between Two Curves Volume by Slicing (Disks &amp; Washers)</td>
<td>6.1</td>
<td>Exam 1 (Friday 04/24, 8 am)</td>
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<tr>
<td></td>
<td></td>
<td>6.2</td>
<td></td>
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<td>5</td>
<td>Length of a Plane Curve Integration by Parts</td>
<td>6.4</td>
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<td>7.2</td>
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<tr>
<td>6</td>
<td>Integrating Trigonometric Functions Trigonometric Substitutions</td>
<td>7.3</td>
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<td></td>
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<td>7.4</td>
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<td>7</td>
<td>Partial Fractions Improper Integrals</td>
<td>7.5</td>
<td>Last day to Withdraw Friday 05/15 5pm</td>
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<td>7.8</td>
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<tr>
<td>8</td>
<td>Separation of Variables</td>
<td>8.2</td>
<td>Exam 2 (Friday 05/22, 8 am)</td>
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<td>9</td>
<td>Parametric Equations, Tangent Lines, and etc. Polar Coordinates and Polar Curves</td>
<td>10.1</td>
<td>No class on Monday 05/25</td>
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<tr>
<td></td>
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<td>10.2</td>
<td></td>
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<tr>
<td>10</td>
<td>Tangent lines, Arc length, &amp; Area for Polar Curves</td>
<td>10.3</td>
<td>LAST DAY OF CLASS IS MONDAY 06/08</td>
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<tr>
<td>11</td>
<td>FINAL EXAM (Cumulative) Do not make reservations to go home until the final Exam schedule is announced</td>
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