It is the prerogative of the Math 121 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 121 are expected to have completed preparatory mathematics courses such as Algebra, Geometry, Trigonometry, and Precalculus. Skills from these courses will be regularly applied to the problems discussed in this course. Any questions regarding your readiness for the course should be resolved immediately.

Course Coordinators

Jason Aran jsa33@drexel.edu 215-571-3585 Korman 258
Dimitri Papadopoulos dp399@drexel.edu 215-895-1957 Korman 236

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 loosely 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.

Course Description and Expectations

The subject matter of the course is differential calculus for functions of a single variable. You will be expected to acquire problem solving skills appropriate to the material, including (but not limited to) the following:
• Understanding the concept of a limit and being able to evaluate elementary examples of indeterminate forms.
• Recognizing when a function is continuous and knowing certain implications - such as the Intermediate Value Theorem.
• Being able to state and apply the definition of a derivative, understanding its relationship to tangent lines and instantaneous rates of change, and recognizing when a function is not differentiable.
• Computing derivatives of sums, differences, products, quotients, and compositions of elementary functions.
• Distinguishing between implicitly and explicitly defined functions and being able to determine the derivative of an implicitly defined function.
• Using information from the first and second derivative to analyze the behavior of a function and then applying that analysis to create a reasonable sketch of a function.
• Using extreme value theorem, derivatives, and other appropriate techniques to locate absolute extrema of a function on a given interval and apply these skills to solve applied optimization problems.

Attendance
Regular attendance is essential for success in this course. You are responsible for all the material discussed in class. The quarter system moves very quickly – if you don’t do your work regularly, it is easy to fall behind.

Assigned Problems
The assigned problems listed on the course website have been chosen to illustrate important concepts and techniques that you are expected to master. These problems 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.

In-Class Quizzes
Once a week (with the exception of exam weeks) there will be an in-class quiz which will cover material discussed up to that point in the class. Each quiz will be worth 10 points; so there will be 90 available points for the entire term. Your final in-class quiz grade will be the total number of points obtained divided by 80. As a result, you can earn over 100% on 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 10/18, 8-8:50 am  Chapters 1.1-1.3, 1.5, 1.6, 2.1-2.4
Exam 2:  Friday 11/15, 8-8:50 am  Chapters 2.5, 2.6, 3.1-3.6

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 11th 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 comprehensive 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.

**Course Grading**

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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</thead>
<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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</table>

**Grade Cutoffs**

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<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>F</th>
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<tbody>
<tr>
<td>90%</td>
<td>80 - 89%</td>
<td>70 - 79%</td>
<td>60 - 69%</td>
<td>0 - 59%</td>
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</table>

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

**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/
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:

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

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 an exam and a letter sent to the Office of Student Conduct. Students should be familiar with the following policies:

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>Material</th>
<th>Chapters</th>
<th>Announcements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 9/23/13</td>
<td>Limits (An Intuitive Approach) Computing Limits Limits at Infinity</td>
<td>1.1 1.2 1.3</td>
<td></td>
</tr>
<tr>
<td>2 9/30/13</td>
<td>Continuity Limits &amp; Continuity of Trigonometric Functions Tangent Lines &amp; Rates of Change</td>
<td>1.5 1.6 2.1</td>
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<tr>
<td>3 10/7/13</td>
<td>The Definition of the Derivative Techniques of Differentiation Product &amp; Quotient Rule</td>
<td>2.2 2.3 2.4</td>
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<tr>
<td>4 10/14/13</td>
<td>Derivatives of Trigonometric Functions The Chain Rule</td>
<td>2.5 2.6</td>
<td>No Class On Monday 10/14 Exam 1 (10/18, 8 am)</td>
</tr>
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<td>5 10/21/13</td>
<td>Implicit Differentiation Derivatives of Logarithmic Functions</td>
<td>3.1 3.2</td>
<td>No Class On Tuesday 10/22</td>
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<tr>
<td>6 10/28/13</td>
<td>Derivatives of Exponential &amp; Inverse Trigonometric Functions Related Rates</td>
<td>3.3 3.4</td>
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<tr>
<td>7 11/4/13</td>
<td>Local Linear Approximation &amp; Differentials L’Hopital’s Rule &amp; Indeterminate Forms</td>
<td>3.5 3.6</td>
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<tr>
<td>8 11/11/13</td>
<td>Rolle’s Theorem &amp; The Mean Value Theorem Analysis of Functions I: Increasing, Decreasing, &amp; Concavity</td>
<td>4.8 4.1</td>
<td>Exam 2 (11/15, 8 am)</td>
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<tr>
<td>10 11/25/13</td>
<td>Analysis of functions III: Graphing Rational Functions, Cusps, Vertical Tangent Lines Absolute Extrema</td>
<td>4.3 4.4</td>
<td></td>
</tr>
<tr>
<td>11 12/2/13</td>
<td>Applied Max-Min Problems Catch Up &amp; Review</td>
<td>4.5 Review</td>
<td></td>
</tr>
<tr>
<td>Finals Week 12/9/13</td>
<td>Date &amp; Time To Be Announced By The Registrar. Do Not Make Travel Plans Until After The Announcement Of The Exam. The Final Exam Is Cumulative.</td>
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</tbody>
</table>

*Note: Chapter numbers & titles correspond to Calculus: Early Transcendentals, 10th edition, by Anton. As mentioned earlier in the syllabus, you may use this book or you may elect to use a different textbook or electronic resource as a reference.*