## Calendar for Math 122, Fall 2008

## Author: Matthew Leingang <leingang@.cims.nyu.edu>

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This is a week-by-week calendar of topics covered in Calculus II. More details, including specific learning objectives and the amount of time to spend on each section, can be found in the lesson guide. As a rule of thumb, the topics are generally to be spread out equally during the week, so if there are two topics, each one takes one class period, while if there are three, each should take two-thirds of a class period.

| Week | Dates | Section | Topics |
| :---: | :---: | :---: | :---: |
| 1 | 9/2-9/5 | 5.1 | Areas and Distances |
|  |  | 5.2 | The definite integral |
|  |  | 5.3 | Evaluating definite integrals |
|  |  | 5.5 | The Substitution Rule |
| 2 | 9/8-9/12 | 6.1 | Integration by parts |
|  |  | 6.2 | Trigonometric Integrals and Substitution |
| 3 | 9/15-9/19 | 6.3 | Integration by Partial Fraction Decomposition |
|  |  | 6.4 | Integration with tables and Computer Algebra Systems |
| 4 | 9/22-9/26 | 6.5 | Approximate Integration |
|  |  | 6.6 | Improper Integrals |
| 5 | 9/29-10/3 | 7.1 | Areas between Curves |
|  |  | 7.2 | Volumes |
|  |  | 7.3 | Volumes by Cylindrical Shells |
| 6 | $\begin{array}{\|l\|} \hline 10 / 06- \\ 10 / 10 \end{array}$ | 7.4 | Arc length |
|  |  | 7.5 | Applications of Integration |
| 7 | $\begin{array}{\|l} 10 / 15- \\ 10 / 17 \end{array}$ | Midterm |  |
| 8 | $\begin{array}{\|l} 10 / 20- \\ 10 / 24 \end{array}$ | 7.6 | Differential Equations |
| 9 | $\begin{array}{\|l\|} \hline 10 / 27- \\ 10 / 31 \end{array}$ | 8.1 | Sequences |
|  |  | 8.2 | Series |
| 10 | 11/3-11/7 | 8.3 | The integral and comparison tests |
|  |  | 8.4 | Other convergence tests |
| 11 | 11/10- | 8.5 | Power Series |


|  | $11 / 14$ | 8.6 | Representing Functions as Power Series |
| :--- | :--- | :--- | :--- |
| 12 | $11 / 17-$ <br> $11 / 21$ | 8.7 | Taylor and Maclaurin series |
| 13 | $11 / 24-$ <br> $11 / 26$ | 9.1 | Applications of Taylor Polynomials |
| 13.2 | Parametric Curves |  |  |
| 14 | $12 / 1-12 / 5$ | 9.3 | Calculus with parametric curves |
|  |  | 9.4 | Polar Coordinates |
| 15 | $12 / 8-12 / 12$ | 9.5 | Conic Sections in Polar Coordinates |

