Assignment 1: Getting Started
Week 1

In class on Wednesday, [Day 1]:

- Log onto Educator (http://educator.stritch.edu/) and find the course materials.
  - Find the Syllabus, and answer the Syllabus Questions (handout) in small groups. Complete the Syllabus Questions for homework, and turn this in when you come to class on Friday. (You can find a clean copy of the Syllabus Questions handout in the Course Materials/Assignments folder in Educator.)
  - We will be using Maple throughout this course. Maple is available on the computers in the classroom where this course meets and in the general access computer labs around campus. I have registered this course as part of the Maple Adoption Program so that if you wish you can purchase it at a discounted price. You will find details about the Maple Adoption Program and how to purchase your own copy of Maple in the Maple Adoption Handout, which is also in the Assignments folder.
  - Find the text for this course on line at [Insert URL for the text].
  - We will begin with some warm-up exercises to refresh your skills in taking derivatives. You can find a list of derivative rules in the text at Chapter 5/Chapter Summary/Formulas.
  - Apply these rules by working together on the Exercises at the end of Section 5.6, and putting your work on the board. Let's see which groups can put up solutions to the most problems!
  - You can also use Maple to check your work. Here is an example illustrating the relevant syntax:

Maple syntax	Mathematical notation
> $y := t \to e^{-t}\sin(5\,t)$	$y = f(t) = e^{-t}\,sin\,(5t)$
> $diff\,(y(t), t)$	$\frac{dy}{dt}$ or $f'(t)$

- *Write a personal essay, and submit it by uploading it to your folder in Educator by 3:00 pm on Mon, Jan 25.* What events in your mathematical life that have brought you to enroll in Calculus II at Cardinal Stritch University this semester? Was your overall experience in Calculus I a positive/negative experience? What made it that way for you? What were the two or three most significant things you learned in Calculus I?
  - Write a one-page personal essay responding to these questions, and save it as a Word document (as a .doc or .docx file). Limit your essay to just one page.
  - Upload this document to your folder in Educator by 5:00 pm on Monday, January 26. Part of the point of this assignment is to be sure that everyone in the class can upload work to Educator, so it is not acceptable to hand in a hardcopy on paper. *You must submit this assignment electronically by uploading it to your folder for this course in Educator.*

  This essay is your personal story, and I will hold whatever you share in strict confidence.

In class on Friday, [Day 2]:

- We will work together on Section 6.1 *Finding Antiderivatives*. Since finding antiderivatives is the inverse of the process of finding derivatives, you need to know your derivative rules backwards and forwards. To prepare for this class, review the differentiation rules which are summarized in the Chapter 5 Summary, and complete as many of the problems in the Exercises at the end of Section 5.6 as you can. (Remember that you can chack your work using Maple.)
- In class on Friday, we will use a combination of lecture and small group work to find antiderivatives for several families of functions. Each time we find an antiderivative for a particular function *f*, we are actually finding a whole family of functions whose derivative is *f*, so it is important to remember the + C (even though Maple does not usually give this constant term).

In class on Monday, [Day 3]:

- We will work together on Section 6.2 *Separation of Variables*. In this section, our authors take us back to a family of problems that we have already investigated in Chapter 2: population growth problems. Now that we know a lot more about taking derivatives and a little bit about finding antiderivatives, we will be able to solve population growth problems more easily using the method of separation of variables. In class on Monday, I plan to lead you through the major ideas of this section with a lecture, and then give you time to work together on the Activities and Checkpoints in small groups.

Teaching Notes for Day 1: Getting Started

In class on first day of the term:

- Introductions
- Syllabus Activity (handout)
  - Log onto Educator (http://educator.stritch.edu/) and find the course materials.
  - Recommend changing your e-address in Educator to your preferred email account
  - Work on Syllabus Questions (handout) in small groups. Complete them for homework; due at beginning of class on Friday
  - Maple Adoption Program – handout in Assignments folder

- Find the text for this course on line at http://www.math.duke.edu/education/calculustext/index.html.
  - Review derivative rules – See summary list of rules at Chapter 5/Chapter Summary/Formulas
  - Apply these rules by working together on the Exercises at the end of Section 5.6
  - *Let's see which groups can put solutions to the most problems on the board!*
  - Demo use Maple to check your work. Here is an example illustrating the relevant syntax:

Maple syntax	Mathematical notation
> $y := t \to e^{-t}\sin(5\,t)$	$\mathbf{y = f(t) = e^{-t}\,sin\,(5t)}$
> $diff\,(y(t), t)$	$\frac{dy}{dt}$ or $\mathbf{f'(t)}$

- *Write a personal essay, and submit it by uploading it to your folder in Educator by 3:00 pm on Mon, Jan 25*

- *Review Assignment 1 (found in Educator) – On Friday we will dive into Section 6.1*

Accessing Web Work Homework Assignments

- Log-on to http://webwork.maa.org/webwork2/
- Select course: Stritch_MT210 from the list of courses.
- Log in to this system. Your username is your Stritch username (the one that you use for logging into Educator or to Stritch email).

- This will bring you to a screen where you can see a list with one homework set, which I have called HWK 1.
  - If you click on the check-box in front of HWK 1, you can Download Hardcopy of this assignment. You can print this hardcopy.

    These problems sets are designed so that each student gets an individualized copy of this assignment. Everyone gets the same types of problems with slightly different versions of each problem.

  - If you click on the name HWK 1, you will get into an interactive screen where you can choose a problem and type in your responses for each question.

    After typing in your responses, you will have two options: Preview Answers and Submit Answers. It is a good idea to Preview your answer to make sure that the computer saw what you thought you typed. When you submit your answer, you will be told whether your answer is correct.
    If your answer is not correct, you may redo the problem and submit a different answer. I have set up this system so that you can Submit Answers an unlimited number of times up through the Due Date for this problem set.

    - HWK 1 is available to you now. I have set the Due Date at 1:00 pm on Friday, Feb 6. At that time, the answers should become visible to you.
    - Since each of you will get a slightly different version of this assignment, you may work together on these problems. You may discuss the strategies you need to use to solve these problems with each other. Then each of you will need to type in your own answers to get credit for doing this assignment.