# Calculus II – Fall Semester 2017 CRN 67760 Syllabus

MWF 11:30 - 12:20 LSE 217

Instructor Office Office Hours MLSC Hours Email Office Phone Messages Dr. Anthony Kable MSCS 521 M 4:30 – 5:30, W 2:30 – 3:30, R 12:30 – 1:30 in MSCS 521 R 2:30 – 4:30 in the North Tutoring Room anthony.kable@okstate.edu 744-7766 744-5688

#### **Basic Information**

The textbook is the 3<sup>rd</sup> edition of *Calculus: Early Transcendentals* by Jon Rogawski and Colin Adams. We shall cover much of Chapter 7 (Techniques of Integration), Chapter 8 (Further Applications of the Integral and Taylor Polynomials), Chapter 10 (Infinite Series), and Chapter 11 (Parametric Equations, Polar Coordinates, and Conic Sections).

We are required to use the WebAssign system for homework. You will need to self-enroll online at https://www.webassign.net/login.html using the class key okstate 4607 1963.

Calculus II is a continuation of Calculus I, and so it is essential to know the material from that class well. We shall also use algebra and trigonometry. Calculus II is quite a bit harder than Calculus I. It has some difficult concepts and is also more demanding in terms of computational skills. You should expect to spend a lot of time on this class. To succeed, you will have to take responsibility for your own learning. It is essential that you attend regularly, do not get behind or attempt to cram for exams, work hard at understanding the material and solving the problems, and seek help in a timely fashion if you cannot understand a concept or solve a problem despite your best efforts. There is too much material for me to be able to cover every detail in class, but you are responsible for learning everything in each of the sections that is discussed in class.

#### Grades

Your grade in this class will be based on your performance on three preliminary exams, a final exam, WebAssign homework (and possibly other homework), and in-class quizzes. You may also earn an attendance bonus. The weights of these categories are as follows:

PRELIMINARY EXAMS	15% EACH
FINAL EXAM	25%
HOMEWORK	15%
QUIZZES	15%

ATTENDANCE BONUS UP TO 3%

The dates of the preliminary exams and quizzes are shown on the course schedule. The final exam will be held in LSE 217 on Friday, December 15, from 10:00 – 11:50. There will be twelve quizzes in class; your quiz score will be based on the best eight of these. Attendance will be taken in most class periods. The attendance bonus will be based on the period Wednesday, September 6 to Friday, December 1. If you miss no more than three class periods during this period then you will receive a 3% attendance bonus. This will be reduced by 1% for each absence beyond the third, to a minimum of 0% for six or more absences. Students with excused absences will be counted as present.

A total score of at least 90% will ensure an A, a score of at least 80% will ensure at least a B, a score of at least 70% will ensure at least a C, and a score of at least 60% will ensure at least a D. I reserve the right to use my discretion in close cases.

# **Calculators and Other Technology**

You will require a scientific calculator for this class. For the quizzes and exams, you will be permitted to use any calculator that does not have symbolic manipulation capabilities nor the ability to establish a connection to a cellular or wireless network. Typical calculators that are allowed include Casio fx-991 models, Hewlett Packard 35S models, and Texas Instruments TI-36X models. I personally use a TI-36X Pro. Check with me if you are unsure whether a particular calculator is permitted. If you are majoring in engineering then you might want to take a look at the NCEES calculator policy (http://ncees.org/exams/calculator). All the calculators listed above are currently permitted on NCEES exams, whereas more powerful calculators typically are not.

If you need a graph drawn for you then I suggest using the online desmos graphing calculator (https://www.desmos.com/calculator) rather than a regular graphing calculator, since it tends to produce much better results.

When completing the homework or studying for quizzes and exams, it is fine to use technological aids such as calculators, spreadsheets, and computer algebra systems such as Maple, Mathematica, MATLAB, Sage, and Wolfram Alpha to assist you in checking your answers, provided that you do so appropriately. The ideal way to work is first to solve the problem on paper without any technological aids and then to appeal to technology (if you wish) to verify that you didn't make a mistake. If you lean too heavily on the technology then you won't develop the intellectual muscles needed to be successful in the quizzes and exams, and in later classes that use the material we will be covering.

#### **Collaboration, Outside Sources, and Academic Integrity**

You should be familiar with the University's policies on academic integrity. You can find useful resources on this subject at https://academicintegrity.okstate.edu/content/academic-integrity-resources. In this class, you are welcome to collaborate with other students when completing homework and studying for quizzes and exams. However, the only situation in which it is appropriate simply to copy another student's work is when you have missed a class and want to complete your notes. You are also welcome to use online resources, such as YouTube videos and Paul's Online Math Notes (http://tutorial.math.lamar.edu), but you should never make use of the complete solutions to the homework problems that are available online. In addition to being disreputable, doing so is an ineffective strategy for learning.

### What I'm Looking for When I Read Your Work

Part of my job in this class is to give you feedback to assist you in making progress. Another part is to assess your knowledge and skills so that I can eventually assign you a grade. I'm not interested in the final answers to the problems, so much as how you arrived at your answer and whether that process demonstrates a sound grasp of the skills that you are supposed to have and an accurate understanding of the underlying concepts. If these things are taken care of then the final answer will be correct as a matter of course. Consequently, always show your work in sufficient detail that I can find what I'm looking for, and don't try asking for more credit because "the answer is right!" Think about what you're writing and make sure that you really mean it. Don't, for example, use the symbol "=" to mean "and the next step is." That symbol means several things – "is equal to," "should be equal to," "is defined as" – and you should only use it when you mean one of those things. To express things that don't fit easily into formulas, use words, pictures, tables, and whatever else seems likely to be effective.

# **Missed Work**

The Mathematics Department suggests a policy on missed work, which I shall be following in this class. Here it is in full:

(A) Every student shall be offered reasonable accommodation in the event that he or she misses a major assessment activity for a valid and documented reason.

(B) Appropriate documentation shall be provided by the student in a timely fashion to support his or her request for accommodation.

(C) Major assessment activities are those such that a zero on that activity could reasonably be foreseen to impact the student's grade substantially; this category includes, but is not limited to, exams.

(D) Valid reasons include official University activities, activities associated with military service, illness, family emergencies, mandatory court appearances, and any other events of comparable gravity.

(E) Reasonable accommodation means that the student will be given the opportunity to earn a grade on the assessment activity that is based on criteria as similar as possible to those used to grade his or her classmates. This opportunity should normally be made available in a timely fashion.

What all this means is that if you have to miss a quiz or exam for a *serious* reason, *and you are able to provide acceptable documentation verifying that reason*, then you will be allowed to make up the missed work. If you have a scheduled University activity then it is normally best to do this beforehand. I try to be flexible and fair, so if you encounter an unusual circumstance then it is worth at least asking about make-up work, although I might have to say no.

# **Brightspace and Email**

I use OSU's online classroom (Brightspace by D2L) to post important information about the class. I suggest that you add a little basic information to your Brightspace profile, particularly if you are interested in studying with other students in the class. I use email to contact individual students and the class as a whole. This means that you must check your OSU email regularly. If you prefer to use another email address then you should arrange to have your OSU email forwarded to that address.

## The Syllabus Attachment

You should visit http://academicaffairs.okstate.edu/content/resources-students and read the current syllabus attachment. This document outlines some of the general academic policies of the University, as well as listing important dates and informing you of useful resources.