MATH 137 – 35954 **Calculus II** **Spring 2015**
4 credit hours MWF 11:30 – 12:25 ; T R 11:10 – 12:05 COHH 3123

Prerequisite MATH 136, with a grade of C or better.

In addition students are expected to be proficient in arithmetic, algebra, analytic geometry; trigonometry; and all material covered in MATH 136.

Course Description **MATH 137** is the second course in one-variable calculus including topics from analytic geometry. Topics include various methods of integration, sequences and series, polar and parametric functions. The course design includes lecture and recitation.

Text The official text is *Calculus of a Single Variable* by Larson and Edwards 5th Ed. Students may use this text as a reference and to obtain further examples and explanation of the material. However there will be no homework assignments from the text. Instead, homework problems for each lecture will be posted on line.

Learning Outcomes

Successful students in the course will demonstrate proficiency in the ability to correctly work calculus problems on various topics that include:

(i) Differentiation and integration of functions that involve inverse trigonometric functions, hyperbolic trig functions, and inverse hyperbolic trig functions

(ii) Integration techniques such as integration by parts and integration by partial fractions

(iii) Improper integrals

(iv) Surface areas, arclengths, centers of gravity, and probability density functions

(v) Convergence and divergence of sequences and infinite series, including use of the ratio test and nth root test; telescoping series; geometric series; alternating series

(vi) Power series and Taylor series expansions of functions

(vii) Parametric and polar equations

Attendance Policy

Attendance is required. If you accrue two to four absences, then your final grade will be reduced by one letter grade. If you accrue five or more absences, then your final grade will be reduced by two letter grades.

Grading Scale

A: Final Average $\geq 93.5\%$ B: $88\% \leq$ Final Average $< 93.5\%$

C: $78.5\% \leq$ Final Average $< 88\%$ D: $75\% \leq$ Final Average $< 78.5\%$

Tests

There will be six in-class tests and a final exam. Each of these seven tests will count as 1/7 of your final average. Each test will be based on class lectures and the posted homework problems. Details of each test will be outlined about a week in advance of the test by means of a comprehensive review worksheet that will be posted. The tests will be closed book, generally with no formula sheets allowed, no calculators, and no computers allowed. Under no circumstances will students be allowed to use a TI-89 or any symbolic calculation software.

Tentative Test Dates

Test 1: Thurs Feb 5 **Test 2:** Tues Feb 17 **Test 3:** Thurs Mar 5
Test 4: Thurs Mar 26 **Test 5:** Tues Apr 14 **Test 6:** Tues Apr 18
Final Exam: Monday May 11 10:30 – 12:30

On test days, the classroom is a testing zone. Do not bring any open notes into the classroom. If you do so, then you will be asked to leave and you will not be given a test. Do not at any time look at or use your cell phone in the classroom. If you do so, then you will be asked to leave and your test will not be graded.

Mercy Rule

If your average is below 24.75% after the first two tests, then you can no longer earn a C or better. If your average is below 49.83% after the first three tests, then you can no longer earn a C or better. If your average is below 62.375% after the first four tests, then you can no longer earn a C or better. If your average is below 69.9% after the first five tests, then you can no longer earn a C or better. If your average is below 74.91% after the first six tests, then you can no longer earn a C or better.

Make-Up Policy

Students are expected to take all tests in class when they are scheduled. I will not accommodate requests to re-schedule exams for students who wish to miss class to go do other activities. But if you must miss an exam due to a documented medical cause or tragedy, such as a heart attack, stroke, burst appendix, seizure, coma, broken femur, childbirth, earthquake, tornado, polar vortex, car wreck, kidnapping, etc., then I may consider giving you a make-up.

Withdrawal Date

March 20, 2015 is the last day to withdraw from the course with a grade of W or to change enrollment from credit to audit.

Accessibility Services

In compliance with university policy, students with disabilities who require accommodations (academic adjustments, and/or auxiliary aids or services) for this course must contact the Student Accessibility Resource Center in DSU 1074. The phone number is 270-745-5004; TTY 270-745-3030. Per university policy, please do not request accommodations directly from the professor without a letter of accomodation from SARC.

Professor Dr. David K. Neal COHH 4108 745-6213 david.neal@wku.edu
http://people.wku.edu/david.neal/137/

Office Hrs MW 10:40 – 11:20; TR 1:30 – 2:15; or by appointment.

Keys to Success

The faculty, staff, and administration of Western Kentucky University want you to succeed in your courses, to excel in your chosen fields of study, and to enjoy your college experience. We will do all we can to help you. But ultimately, you are responsible for your success. Here are some suggestions that may help:

1. Understand that you are an adult and that you are responsible for your actions.

2. Understand that you are expected to work hard to achieve your goals. Accept that challenge.

3. Attend class. 100% of what I expect you to learn will be carefully taught and explained to you in class. If you miss class, then you miss out not only on that day's material, but you will be confused on the next day's material as well. Moreover, if you have excessive absences, then your final grade will be reduced; so don't take that chance. Lastly, university policy requires attendance; so do the right thing.

4. Pay attention in class and take good notes. Don't chit-chat with others during class. Don't play with your phones or devices during class.

5. Study between class meetings. Reread your notes and re-work the examples from class Work the practice worksheets that will posted and check your work against the posted solutions.

6. At the beginning of each class I will ask, "Are there any questions?" If you have any questions from the previous material or worksheets, then have them ready to go and ask them.

7. Study for your tests. 100% of your grade will be determined by your test scores. Therefore, you must pass your tests. If you want an A, then you must ace your tests.

8. To study for a test, learn how to do 100% of the material on the posted study guides. For years, successful students in my classes have been telling me a variation of the following: "Your tests are exactly like your study guides. So we just need to learn what's on the study guide. And if there is something on there that we don't understand, then we need to figure it out, because it's going to be on the test."

9. Understand my grading scale, and understand that I do in fact expect you to learn the material that is presented. And I will test you on it. And as noted in Item 8, I will let you know in advance 100% of what I expect you learn. So make the effort to learn it.

10. Believe in yourself and believe that you can succeed. Know that your hard work and effort will be appreciated and rewarded throughout your life.