Math 118 - Introductory Calculus   Block 2 Fall 2018

Instructor: Prof. Jan Minton   461 Trexler Hall
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Office Hours: By appointment: Monday & Wednesday 3:30-4:30 and Tuesday & Thursday 2:30-4:30
                         Make appointments online at **jminton.youcanbook.me**

Course Objective: This course provides an introduction to calculus with integrated Pre-calculus review of relevant topics. Calculus topics include the study of limits, derivatives, and graphing. Pre-calculus topics, which will be presented and reviewed as they are needed, include factoring, trig functions, exponents and inverse functions. An additional focus of the course will be the use of technology as a learning aid.

Intended Learning Outcomes:

    ... apply techniques of differentiation to model and solve problems.

    … understand the role of Calculus and the infinitesimal in modern mathematics

    ... calculate, by hand, rudimentary limits and derivatives

    … understand and manipulate various types of functions

    ... recognize the role of technology in Calculus, understand when it should be used, and be aware of its limitations.

Required Materials:	**Text:** *Calculus: Early Transcendental Functions*, Smith and Minton, 4th Edition
	Technology: Graphing Calculator
	Inquire course management system available through MyRoanoke
	Installation of *Mathematica* software – see course *Inquire* site for instructions

Attendance Policy: Full attendance is expected. Simple attendance is not graded, but graded activity will occur during many class periods. As stated in the Academic Catalog, "Every student is accountable for all work missed because of class absence. Instructors, however, are under no obligation to make special arrangements for students who are absent." Also, anytime you come in late or leave during class you miss part of the course and you disrupt the educational experience for everyone else. Do this only in the case of emergency.

Overall Workload: In addition to the 3 hours of class time, you are expected to work outside of class for a minimum of 9 additional hours per week.

Practice Work: Practice problems will be assigned regularly from the textbook. For the most part these will not be graded, but it is important that you do these exercises in a timely fashion so that you can monitor your own progress and do well on Homework Quizzes. You will need to keep your practice work organized and well labeled.

Quizzes: **Algebra**: There will be a quiz on Inquire for each Pre-calculus review topic. These quizzes will be available for 24 hours following the in-class review. There will be no make-ups after the quiz closes on Inquire. None of these grades will be dropped.

                Weekly: There will be weekly quizzes on recent calculus material. No make-up quizzes will be given, but the lowest quiz grade will be dropped.

                Preparation: Following each video assignment, there will be a very brief quiz or hand-in assignment. Together these will count as one weekly quiz grade. No make-ups. No drops. The preparation average is not eligible to become the dropped grade in the weekly category.

Homework: As time permits there will be **<u>unannounced</u>** homework quizzes. A homework quiz will have a prompt such as "Record your work for Section 2.1 problem 12a." You will be allowed to consult only your own handwritten homework documents. You may not consult the textbook during such a quiz. These will be very brief and strictly timed as you will need time only to copy previous work. No make-ups are allowed, but scores on the lowest 20% of the total number of these quizzes will be dropped. For example if there are 5 such quizzes the lowest score will be dropped – if there are 10 such quizzes then the lowest 2 scores will be dropped, etc. The resulting average will count as a weekly quiz grade and is not eligible to become the dropped grade in the Weekly category.

Mathematica

At times during the semester we will enhance our study of calculus by doing a series of Mathematica Projects. These projects will introduce you to the software package Mathematica and allow you to take advantage of its graphical and computational capabilities to reinforce your understanding of calculus.

Tests/Exams:

There will be four tests and a final exam as indicated on the day by day course schedule. Make-up tests will be given only under *very* extenuating circumstances that prohibit you from physically appearing in the classroom.

Co-curricular Involvement:

The Math, Computer Science and Physics department offers a series of discussions that appeal to a broad range of interests related to these fields of study. These co-curricular sessions will engage the community to think about ongoing research, novel applications and other issues that face our discipline. There is a link to the dates and times for these sessions on *Inquire*.

Members of this class are invited to attend all appropriate meetings; however participation in **at least two** of these sessions is mandatory. A response form is available on Inquire. Within one week of attendance, students must submit this completed form to the instructor. These two scores will count in the Preparation Quiz category.

Academic Integrity And Electronic Devices:

The college policy is fully supported. All tests and quizzes will be closed book and closed notes unless otherwise indicated.

The use of any electronic device during a quiz or exam is strictly prohibited. Exceptions may be made regarding the use of calculators or computers. Cell phones are never permitted. **Any use of a non-approved device during a quiz or exam will be considered a breach of academic integrity.**

Grading:

Weights for the various components of the course and final course letter grade assignments are given below:

Algebra Quizzes	10%	A 93-100	B- 80-82	D+ 67-69	
All other Quizzes	15%	A- 90-92	C+ 77-79	D 63-66	
Mathematica Projects	10%	B+ 87-89	C 73-76	D- 60-62	
Test Average	45%	B 83-86	C- 70-72	F below 60	
Final Exam	20%				

IMPORTANT TO NOTE:

The Inquire gradebook will be used for grade STORAGE only. Inquire will not be used to calculate your official course average. Any averages you might see in Inquire for this course should not be trusted.

Material, content, and scheduling are subject to change if deemed appropriate or necessary by the instructor.

Math 118 Target Schedule   (Consult Inquire page for daily details)
Fall 2018

Wednesday, August 29 – Monday, September 17

Sections 1.1 – 1.5

Wednesday, September 19

TEST 1

Friday, September 21 – Wednesday, October 10

Sections 2.1 – 2.3

Friday, October 12

TEST 2

Monday, October 15 – Friday, October 19

FALL BREAK

Monday, October 22 – Friday, November 9

Sections 2.4 – 2.7

Monday, November 12

TEST 3

Wednesday, November 14 – Monday, November 19

Sections 2.7 continued & 2.10

Wednesday, November 21 – Friday, November 23

THANKSGIVING HOLIDAY

Monday, November 26 – Monday, December 3

Sections 3.1 & 3.2

Wednesday, December 5

TEST 4

Friday, December 7

Review for Final Exam

Wednesday, December 12   8:30-11:30am

FINAL EXAM