Text:

D. Hughes-Hallett, Sikorskii, Applied Calculus, 5th Edition, MSU Custom Version, with Wiley Plus. John Wiley & Sons, New York, NY, 2014. (Older versions may be different)

Calculator:

A graphing calculator is required for this course. In particular, the uniform final exam can be expected to contain questions that require the use of a graphing calculator. Currently, most instructors are using the recommended calculator (Texas Instruments' TI83+, TI 84, or TI 84+). Each student bears sole responsibility to develop adequate proficiency with his/her graphing calculator.

PLEASE NOTE: Some calculating devices are not appropriate for this course. Any test or quiz completed using one of these prohibited devices will receive an automatic zero (0) score.

The use of cell phones, or any other electronic device in the classroom is specifically prohibited.

ALL devices which can perform algebraic symbol manipulation ('computer algebra') are prohibited. Currently, the use of at least the following devices on any graded exercise is prohibited: Texas Instruments' models TI89, TI-Nspire, Voyage 200, TI92 & TI92-plus calculators; Hewlett Packard's model HP49G, HP49G+, and HP50G; Casio's algefx2.0 & algefx2.0pls; and all 'handheld', 'palmtop', 'laptop', and 'desktop' computers. If you are uncertain about your calculator, ASK! This is your responsibility!

Clase Page:

Here you can find your syllabus, important dates, and any other material your instructor may post. To access this click the 'Class Pages' link at http://www.math.msu.edu, then find your section e.g. 124.021.

Course Goals: In this course we will learn about limits, continuous functions, derivatives, integrals, and their applications. The primary goals of this course are for students to:

- 1. Gain a substantial understanding about what calculus is and why it is useful.
- 2. Recognize the appropriate tools of calculus to solve applied problems.
- 3. Analyze functions using limits, derivatives, and integrals in a variety of different ways (graphically, numerically, analytically and verbally).

**Prerequisites:** At a minimum, to be successful in this course, you must either have received a score of 15 or higher on the MSU Math Placement Service Exam or an ACT math score of at least 28 or an SAT math score of at least 640 or have completed MTH 103 or 116 (or their equivalents), preferably with a grade of at least 2.0. If you are uncertain about your preparedness for the material in this course, you should discuss this issue immediately, either with your instructor or the course supervisor. Please note that, if you do decide that you are misplaced in MTH 124, you must act quickly. (See the schedule below for the various deadlines which affect math course changes.)

**Evaluation:** 

Grades in this course are based upon the point total of the scores from three in-class exams (totaling 300 points), ten out of twelve quizzes (10 points each, totaling 100 points) and the uniform final exam (200 points). All exams will be 'closed book' and all, excluding only the final exam, will be written during regularly scheduled classes. Similarly, some quizzes will also be written in class; and, some will be done using the on-line materials.

The following grading scale can be used to estimate grades for individual quizzes and exams; however, course grades will be determined from point totals, not from interim grades.

90% –	100%	4.0	65% –	72%	2.0
85% -	89%	3.5	60% -	64%	1.5
79% –	84%	3.0	55% –	59%	1.0
73% –	78%	2.5			

The point totals mentioned above assume that all graded exercises are included. Of course, an excused exercise will decrease the total number of points available.

**Regrading:** 

If you have any question regarding the grading of an exam or quiz, your paper must be handed back to the instructor for re-grading at the end of the class period during which you received it. *Once a graded paper has left the classroom, no grading changes will be made.* 

**Missed Quiz:** 

No excuse is accepted or required for your first and/or second missed quizzes ONLY, and neither of these quizzes will be included in your final course grade calculation. Alternatively, if you take all of the quizzes, then, at the end of the term, the two quizzes with your lowest scores will be discarded. No other quizzes can be discarded without an appropriate excuse approved by the course supervisor.

**Attendance:** 

Students are expected to attend all class meetings and are responsible for all of the material covered. Any changes in this syllabus or in the scheduling of exams, quizzes, etc. will be announced during class meetings. Students who miss a class meeting should copy a classmate's notes for that meeting. Please be aware that according to University Academic Programs, page 83,

"...students may be dropped from a course for non-attendance by a Dean's Drop after the fourth class period, or the fifth class day of the semester, whichever occurs first..."

Good attendance is its own reward, since it makes learning the material in the course much easier and more efficient. Attendance will be taken in all classes. Evidence of good attendance will be considered only at the end of the term and only in resolving borderline grades. In any case, attendance will contribute less than 0.5% to the course grade.

There will be no "make-ups" for exams or quizzes. A missed exam or quiz will receive the score 0. If a valid excuse is presented (in advance if at all possible), the zero grade on the missed exercise will be excused, and your course grade will be calculated from the remaining graded work. An exam or quiz is excused only when approved by the course supervisor. Of course, family vacations, commercial travel schedules, a desire for a cheaper air fare, etc. are NOT acceptable excuses for missing scheduled classes. Exams missed due to religious observances also fall under this policy. Students must look at this syllabus carefully and plan well ahead.

**Equipment:** 

The graphing calculator should be brought to every class meeting, and it will be required for the homework, in-class assignments, quizzes and exams. The text will also be needed during most classes. Exams and quizzes will require only a pencil and *one* appropriate graphing calculator.

We will use an on-line homework/study system, called Wiley Plus, which can be purchased as a package with the book or separately. Some of the quizzes listed above will be 'on-line' assignments and details will be announced as the class proceeds. Specific information for registering for Wiley Plus has been posted to the "Class Pages".

Help:

Individuals' questions regarding the course work should be directed to the lecturer, either immediately after class or during scheduled office hours. In addition, the Math Learning Center, located on the first floor of Wells Hall, provides many hours of course-specific help each week (please visit <a href="https://www1.math.msu.edu/mlc/">https://www1.math.msu.edu/mlc/</a> for more information).

**Honesty:** 

The University's policy concerning academic integrity is covered in the *Spartan Life* booklet, under General 'Student Regulations'. According to the handbook,

"...no student shall claim or submit the work of another as one's own."

For more information about this and other academic integrity issues, please visit:  $\frac{https://www.msu.edu/\sim ombud/academic-integrity/student-faq.html}{https://www.msu.edu/\sim ombud/academic-integrity/student-faq.html}.$ 

## Detailed Course Schedule with Sections from Hughes-Hallett

Day	Date Section(s)			
M	1/12	1.1, 1.2		
W	1/14	1.2, 1.3		
M	1/19	MLK Day – No Class		
$\boldsymbol{W}$	1/21	1.4 (through marginal cost), 1.5		
Last o	day for late	add, section change, or drop - 1/16		
M	1/26	1.5, 1.6		
W	1/28	1.7, in-class review		
M	2/2	Exam 1		
W	2/4	1.8, 1.9		
	End of th	e 100% Refund Period - 2/6		
M	2/9	1.9, 2.1		
W	2/11	2.1, 2.2		
M	2/16	2.2, FOT* (w/out continuity)		
W	2/18	2.3, 2.4		
M	2/23	2.4, 2.5		
W	2/25	2.5, in-class review		
M	3/2	Exam 2		
W	3/4	5.1		
Last da	y to drop co	ourse with no grade record — 3/4		

Day	Date	Section(s)		
	Spri	ing break 3/9–3/13		
M	3/16	5.1, 5.2		
W	3/18	5.3		
M	3/23	5.3, 5.4		
W	3/25	5.4, 5.5		
M	3/30	5.5 & FOT (FTC2**)		
W	4/1	3.1, 3.2		
M	4/6	3.2, 1.8, 3.3		
W	4/8	3.3, in-class review		
M	4/13	Exam 3		
W	4/15	3.4		
M	4/20	1.10 & 3.5		
W	4/22	4.1, 4.2		
M	4/27	4.2		
W	4/29	in-class review		
	Last Day of C	Classes - 5/1		

There will be a **UNIFORM FINAL EXAM** in this course. It will be held on Tuesday, May 5<sup>th</sup>, 2015, from 10:00 am to 12:00 noon. The room locations will be announced in April. **There will be no early final exams.** 

## **Tentative Quiz Schedule**

Quiz # 1:	Wed	1/21	(in-class)	Quiz # 7:	Tue	3/17	(Wiley Plus, due 11:00pm)
Quiz # 2:	Tue	1/27	(Wiley Plus, due 11:00pm)	Quiz # 8:	Mon	3/23	(in-class)
Quiz # 3:	Fri	1/30	(Wiley Plus, due 11:00pm)	Quiz # 9:	Mon	3/30	(in-class)
Quiz # 4:	Wed	2/11	(Wiley plus, due 11:00pm)	Quiz #10:	Fri	4/3	(Wiley Plus, due 11:00pm)
Quiz # 5:	Wed	2/18	(in-class)	Quiz #11:	Tue	4/21	(Wiley Plus, due 11:00pm)
Quiz # 6:	Wed	2/25	(Wiley Plus, due 11:00pm)	Quiz #12:	Wed	4/29	(Wiley Plus, due 11:00pm)

<sup>\*</sup> FOT – Focus On Theory

<sup>\*\*</sup> FTC2 - Second Fundamental Theorem of Calculus