Office: 213C Elliott Hall. Email: hiseri@mansfield.edu. Web page: http://faculty.mansfield.edu/hiseri.
Office Hours: 12:30-1:30 MWF and 9:30-10:30 WF.
Text: (Optional): Calculus, Larson and Edwards (any edition). You will probably use the current edition if you take Calculus II next semester. You won’t really need it this semester.
Attendance: The University’s attendance policy is stated below. I will accept a statement from you as documentation, and I will generally use the final exam as a make-up exam for missed tests. I will track attendance with the quizzes and labs, and I will accept late assignments within a reasonable time (basically, before the associated exam).
Catalog Description: The purpose of this course is to develop a good understanding of limit, continuity, the derivative and its uses (including modeling and solving problems), to introduce the definite integral, and to establish the important relationship between the derivative and the definite integral. In this context the course will examine different classes of functions numerically, symbolically, and graphically. This course is intended for mathematics, science, and engineering majors. Prerequisite: MA 1165 or high school algebra and trigonometry.
Program and General Education Assessment Evidence: The final exam will be retained and analyzed (anonymously) to assess the Student Learning Outcomes listed below for both program and general education assessment purposes.
Calculator: You may want to use a calculator for this class, and you will be allowed to use it on tests. A $10-$15 scientific calculator or statistical calculator should be sufficient. No cellphones during tests.
Assignments: 10% total Homework, quizzes, and labs.
22% each Three Tests (Wednesdays, Feb 6th, Feb 27th, and April 3rd).
24% Final Exam (Friday, May 3rd at 1:00pm).
Letter Grades: I will assign letter grades based on the following percentages. An A is 93% or better. An A- is 90% or better. A B+ is 87% or better. A B is 83% or better. A B- is 80% or better, A C+ is 77% or better, A C is 73% or better, A C- is 70% or better, A D+ is 67% or better, A D is 63% or better, and a D- is 60% or better. Anything below 60% is an F.
Material to be covered: See Course Calendar. (http://faculty.mansfield.edu/hiseri/MA2231/MA2231.htm)
Course Objectives: Students will develop skills and knowledge of standard concepts fundamental to calculus, particularly the derivative.
Course Objectives:
1. Develop the concept of limit through multiple representations (numerical, graphical, and symbolic)
2. Develop the concept of derivative and standard algorithms for taking derivatives
3. Explore applications of derivatives in contextual problems
4. Apply the derivative concept to the exploration of function behavior
5. Introduce the concept of antiderivative and integral
Student Learning Outcomes: Students will be able to:
1. Demonstrate knowledge of limit
2. Discuss the concept of derivative and take derivatives using standard rules.
3. Solve realistic application problems.
4. Use Maple to reconcile a function’s behavior with characteristics in first and second derivatives.
5. Take integrals using standard rules.
BS Mathematics Program Outcomes:
1. Common Mathematics Content Knowledge: Students will gain an understanding and awareness of the key concepts found in the standard subject areas of
   1-1. calculus
   1-2. logic
   1-3. set theory
   1-4. linear algebra
   1-5. probability and statistics
   1-6. history of mathematics
2. Proof and Justification: Students will develop the skills necessary to formulate and understand proofs and to provide justification.
3. Abstract Reasoning: Students will develop the ability to reason abstractly and rigorously.
4. Technology: Students will develop skills necessary to use technology in doing and learning mathematics.
5. Applied Mathematics Concentration: Content Knowledge: Students will gain an understanding and awareness of the key concepts found in the application of the subject areas of
   5-1. differential equations 5-2. numerical analysis
   5-3. operations research.
6. Pure Mathematics Concentration: Content Knowledge: Students will gain an understanding and awareness of the key concepts found in the subject areas of
   6-1. geometry 6-2. abstract algebra 6-3. real analysis.

Course Outcomes meet BS Math Program Outcomes as shown below.

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<td>2. Derivatives.</td>
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<td>3. Applications.</td>
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<td>4. Maple.</td>
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<td>5. Antiderivatives</td>
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General Education Outcomes. In addition to the above, this course addresses the following General Education Outcomes.
1. Transform/manipulate numerical and algebraic expressions (SLO 1-5)
2. Find solutions to equations (SLO 1-4)
3. Given a table or graph, answer questions related to the data being presented (SLO 1-3)
4. Given a data set or equation, compute an appropriate statistic or parameter (e.g., mean, standard deviation, slope, critical point) (SLO 1-5)
5. Given a data set or equation put into a specific tabular or graphical form (SLO 1-4)
Mansfield University Attendance Policy (as stated in the MU Catalog)
Regular and punctual class attendance is expected. Documented excuses because of illness, serious mitigating
circumstances, official military service, or official university representation will be accepted by all faculty members. In
these cases, faculty members will permit students to make up all graded course components without penalty in a
reasonable manner at a time agreeable to instructor and student. Students must provide documentation before absences
can be excused. All instructors are expected to make their class participation and attendance policies clear in the course
syllabi.

Students Requesting Academic and/or Access Accommodations
Students with documented learning disabilities, physical challenges, or other significant medical conditions that may
affect their learning in this course should meet with the Services for Students with Disabilities (SSD) Coordinator in
the SSD Office located in the Department of Academic and Human Development (144 South Hall, Phone: 570/662-
4436) as soon as possible. It is recommended that students contact the SSD Coordinator during the first two weeks of
classes in order to ensure accommodations are met in an efficient, appropriate, and timely manner for the best student
learning outcome. The Coordinator will arrange to provide your professors with a suitable letter so that we may serve
your particular needs more effectively. If you have a disability that requires classroom or testing accommodations, the
Coordinator will also clarify appropriate arrangements.

Academic Integrity
The integrity of all scholarly work is at the foundation of an academic community. Students are expected to do their
own academic work. Dishonesty in academic work, including cheating, academic misconduct, fabrication, or
plagiarism, is unacceptable. Faculty are expected to instruct students in ways of avoiding these forms of academic
dishonesty. Faculty are also responsible for assessing and reporting all charges of academic dishonesty to the
appropriate Dean. MU’s Academic Integrity Policy can be found at http://www.mansfield.edu/academic-
affairs/faculty-resources/upload/Mansfield-University-Process-for-Reporting-Academic-Integrity-Violations-Rev-3-
09.pdf and the Academic Dishonesty Form may be accessed here or from the Academic Affairs website.

Copyright
The University fully supports the Copyright Laws of the United States. Respect for intellectual labor and creativity is
vital to academic discourse and enterprise. This principle applies to any original work in any tangible medium of
expression. Images displayable on computer screens, computer software, music, books, magazines, journals,
photographs, and articles are among items subject to copyright. A work need not be explicitly labeled with a copyright
notice to be afforded copyright protection. For more information on Copyright please consult the Mansfield University
Copyright Information website: http://mansfield.libguides.com/copyright.

Student Consumer Rights and Responsibilities
The Higher Education Opportunity Act (Public Law 110-315) (HEOA) was enacted on August 14, 2008, and
reauthorizes the Higher Education Act of 1965, as amended. The HEOA (2008) requires colleges and universities to
provide students with information necessary to make informed decisions concerning their educational experiences.
Mansfield University strives to serve its students fairly and equitably. The following MU website provides an
inclusive list by topic of student consumer rights and responsibilities: http://mansfield.edu/HEA/

Title IX and Protection of Minors Legislation: Reporting Obligations
Mansfield University and its faculty are committed to assuring a safe and productive educational environment for all
students.

Title IX Requirements: In order to meet this commitment and to comply with Title IX of the Educational Amendments
of 1972 and guidance from the Office for Civil Rights, the University requires faculty members to report incidents of
sexual violence shared by students to the University’s Title IX Coordinator. The only exceptions to the faculty
member’s reporting obligation under Title IX are when incidents of sexual violence are communicated by a student
during a classroom discussion, in a writing assignment for a class, or as part of a University-approved research project.
Frank Crofchick (570-662-4342, fcrofchi@mansfield.edu) serves as Mansfield University’s Title IX Coordinator.
Additional information regarding the reporting of sexual violence and the resources that are available to victims of
sexual violence is set forth at: http://www.mansfield.edu/title-ix/upload/Title-IX-Policy-FINAL-7-2016.pdf;
http://www.mansfield.edu/title-ix/resources.cfm (Title IX Resources), and http://www.mansfield.edu/title-ix/bill-of-
rights.cfm (Sexual Misconduct Victims’ Bill of Rights) Reports of Title IX matters should be directed to
titleix@mansfield.edu.

Protection of Minors Requirements: Faculty members are obligated to report sexual violence or any other abuse of a
student who was, or is, a child (a person under 18 years of age) when the abuse allegedly occurred, to the Human
Resources Office (570-662-4893) as designated in the University’s protection of minors policy. No exceptions apply
to this reporting obligation. Mansfield University’s Protection of Minors policy is available at
http://www.mansfield.edu/hr/protection-of-minors.cfm.