Department of Mathematics, Computer and Information Sciences
Mississippi Valley State University
MA 300-1 Calculus II
Fall, 2018

College	Department	Course #
Arts and Sciences	**MCIS**	**MA300**
Instructor	Class Meetings-Location/Time:	Office Location:
Dr. Xiaoqin Wu	TR 9:25 – 10:40am CRB 206	CRB 214F
Office Phone:	E-mail Address:	Office Hours:
254 – 3402 254 – 3422 (main office)	xpwu@mvsu.edu	MWF 9:00 - 11:00am TR 11:00 – 12:00 pm

Text: Larson, Hostetler and Edwards, Calculus, 10th, Hough Mifflin Company

Course Credit: 3 hours

Prerequisites: Calculus I with "C" or better.

Overview
This course is calculus II that provides necessary foundation and techniques for students who need preparation for further study both in Calculus III &VI, Analysis I&II, Differential Equations, and engineering courses. Students are expected to read extensively from the textbook and spend a considerable amount of time solving problems. This course will help students use and understand mathematics more effectively as a problem-thinking-solving tool in their personal and professional lives. A combination of exercises and activities will be included to help all students acquire certain skills such as substitution method, integration by parts, the Fundamental Theorem of Calculus, and so on. Topics will be taken from chapters throughout rather than chapter by chapter coverage.

Course Objectives and Goals
1. To provide students with adequate exposure and subject matter to prepare them to study Calculus III &VI, Analysis I&II, Differential Equations, and engineering courses.
2. To help students develop their critical thinking, technological and writing skills.
3. To help students develop computational skills in differential and integral calculus.
4. To help students develop some knowledge of application of integrations and differentiations in solving physical sciences and engineering
5. To help students obtain the ability to use computer technology (Mathematica)

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Course Content:

    4. Integration
        a. Area
        b. Riemann sums and definite integrals
        c. The fundamental theorem of calculus
        d. Integration by substitution

    5. Logarithmic, exponential, and other transcendental functions
        5.1 The natural logarithmic functions: Differentiation
        5.2 The natural logarithmic functions: integration
        5.3 Inverse functions
        5.4 Exponential functions
        5.5 Bases other than e and applications
        5.6 Inverse trigonometric functions: differentiation
        5.7 Inverse trigonometric functions: integration
        5.8 Hyperbolic functions

    7. Applications of integration (option)
        7.1 Area of a region between two curves
        7.2 arc length of curves

    8. Integration techniques
        8.1 Basic integration rules
        8.2 Integration by parts
        8.3 Trigonometric integrals
        8.4 Trigonometric substitution

Course Outline: *Subject to some changes depending on the needs and level of the class*		
Week	**Contents**	**Exams**
Week 1	4.2, 4.3	
Week 2	4.4, 4.5	
Week 3	4.5, 5.1	
Week 4	5.2	
Week 5	5.2	
Week 6	5.3	
Week 7	5.4	
Week 8	5.5	Midterm Exam

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Course Outline:		
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Week 9	Spring break	
Week 10	5.6	
Week 11	5.7	
Week 12	5.8, 8.1	
Week 13	7.1, 7.2	
Week 14	8.2	
Week 15	8.3, 8.4	
Week 16		**Final Exam**

Teaching Methods
The method used to accomplish the goals and objectives of this course include a combination of lectures, demonstrations, class discussions, use of technology and group activities.

Course Requirements
- Students are expected to attend class, take notes, and carefully complete all homework assignments and submit them when due. **Incomplete or late assignments will not be accepted.**
- Students are strongly encouraged to participate in all class activities.
- Failure to make up an exam will result in a grade of zero.
- Students are expected to pass written examinations based on classroom lectures and homework assignments.
- Any individualized problems should be discussed in the office and not in the classroom.
- **DO NOT** wait until the end of the semester to ask for help. Use my office hours, as well as tutors, if and when you may need extra practice.

Evaluation Criteria
The evaluation methods, with exception to the homework and final exam, may vary with instructors. **(See Homework and Final Exam below)**

Grading Scale

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Score (Average)	Grade
90-100	A
80-89	B
70-79	C
60-69	D
Below 60	F

Classroom Activities, Quizzes………………….………………..5%
Homework, Compute Projects……………….…......................45%
Midterm………………………………………………………….15%
Final Exams………………………………………………..35%

Missed Homework/Quizzes, Exams
All students can make up a missed exam with an approved absence. **No make-up on missed quizzes/homework.**

Final Exam
The final exam is a comprehensive examination consisting of all topics covered.

Attendance Policy
It is necessary for students to attend every class meeting. Any student who misses more than the allowed number (**3**) of absences will be subject to a decrease in their final grade.

Special Needs Statement
Students having any special needs (handicaps, problems, or any factors that may affect their performance in class or require special instructional strategies) should make these special needs known to the instructor during the **first week** of the course. The instructor meets with the student to insure access of available resources in the university and make appropriate instructional modifications.

Beepers or Telephones
The volume of telephones and beepers must be turned **off/vibrate** if you have these items with you in class. The noise is distracting not only to the instructor but to your classmates as well.

NOTE: **Failure to adhere to any of the preceding statements could cause a decrease in the FINAL GRADE!!!!!!**

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