ARIZONA WESTERN COLLEGE
SYLLABUS

MAT 230 CALCULUS II WITH ANALYTIC GEOMETRY/GE
Credit Hours: 5 Lec 4 Lab 2
SUN# MAT 2230

PREREQUISITE: MAT 220

COURSE DESCRIPTION
Applications of the integral, techniques of integration, parametric and polar form, convergence of series, Taylor and MacLauren series.

1. COURSE GOALS
   - 1.1 Achieve a high level of understanding in topics of integral calculus, differential equations, and series.
   - 1.2 Demonstrate basic logical and abstract thought processes.

2. OUTCOMES
   Upon satisfactory completion of this course, students will be able to:
   - 2.1 formulate equations and functions and apply the results to problems encountered in the natural and physical sciences.
   - 2.2 integrate functions of one variable using several integration techniques and apply the results to problems encountered in the natural and physical sciences.
   - 2.3 find equivalent parametric and polar forms of equations and perform fundamental calculus to equations in these forms.
   - 2.4 determine whether several families of series converge or diverge using appropriate convergence tests and model real-life phenomena using sequences and series.
   - 2.5 find the Taylor and MacLauren series representations of functions and apply to applications in science and engineering.

3. AWC GENERAL EDUCATION (GE) CATEGORY & CRITERIA
   QUANTITATIVE REASONING
   - Mathematical, statistical, and/or logical techniques and methods, and then how to use those methods to understand and solve meaningful problems
   - How to express quantitative information symbolically, graphically and/or in written or oral language
   - How to interpret, analyze and critique information or a line of reasoning
   - How to ask critical thinking questions, develop critical thinking skills and mathematical reasoning, and follow logical procedures step by step

4. METHODS OF INSTRUCTION
   - 4.1 Lecture
   - 4.2 Visual aids
   - 4.3 Cooperative learning techniques

5. LEARNING ACTIVITIES
   - 5.1 Problem solving
   - 5.2 Participation
   - 5.3 Using computers and/or graphing calculators

6. EVALUATION
   - 6.1 Homework assignments
   - 6.2 Participation
   - 6.3 Lab assignments
   - 6.4 Exams/quizzes

7. STUDENT RESPONSIBILITIES
   - 7.1 Under AWC Policy, students are expected to attend every session of class in which they are enrolled.
   - 7.2 If a student is unable to attend the course or must drop the course for any reason, it will be the responsibility of the student to withdraw from the course. Students who are not attending as of the 45th day of the course may be withdrawn by the instructor. If the student does not withdraw from the course and fails to complete the requirements of the course, the student will receive a failing grade.
   - 7.3 Americans with Disabilities Act Accommodations: Arizona Western College provides academic accommodations to students with disabilities through AccessABILITY Resource Services (ARS). ARS provides reasonable and appropriate accommodations to students who have documented disabilities. It is the responsibility of the student to make the ARS Coordinator aware of the need for accommodations in the classroom prior to the beginning of the semester. Students should follow up with their instructors once the semester begins. To make an appointment call the ARS front desk at (928) 344-7674 or ARS Coordinator at (928) 344-7629, in the College Community Center (3C) building, next to Advising.
   - 7.4 Academic Integrity: Any student participating in acts of academic dishonesty—including, but not limited to, copying the work of other students, using unauthorized "crib notes", plagiarism, stealing tests, or forging an instructor's signature—will be subject to the procedures and consequences outlined in AWC's Student Code of Conduct.
   - 7.5 Texts and Notebooks: Students are required to obtain the class materials for the course.
   - 7.6 Arizona Western College students are expected to attend every class session in which they are enrolled. To comply with Federal Financial Aid regulations (34 CFR 668.21), Arizona Western College (AWC) has established an Attendance Verification process for "No Show" reporting during the first 10 days of each semester.
     Students who have enrolled but have never attended class may be issued a "No Show" (NS) grade by the professor or instructor and receive a final grade of "NS" on their official academic record. An NS grade may result in a student losing their federal financial aid.
     For online classes, *student attendance in an online class is defined as the following* (FSA Handbook, 2012, 5-90):
     - Submitting an academic assignment
     - Taking an exam, an interactive tutorial or computer-assisted instruction
     - Attending a study group that is assigned by the school
     - Participating in an online discussion about academic matters
     - Initiating contact with a faculty member to ask a question about the academic subject studied in the course