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Office: NM314  
Office Hours: 10-11 MW and 2-3 TT. Other hours by appointment.  
Class meeting time and place: NM357 8-9:15am TR

Text and Materials:  
**Book:** A Friendly Introduction to Analysis by Withold Kosmala-2nd Ed. We will cover the material in Chapters 6, 7, 8. A scientific calculator is required.

Course Requirements: Objectives: I expect each student to gain a deeper understanding of the Riemann Integral, Improper Integrals, the Gamma function, infinite series of constants and functions. In addition, I expect each student to be able to state mathematical definitions with accuracy and to be able to produce mathematically sound proofs.

Course Calendar:  
A tentative calendar is attached.

Grading Policy: There will be three two-part tests (Essentially, a test over each chapter). Part I will consist of problems assigned daily to be turned in as “homework”. I will cut these off at the appropriate time and begin new problems for the next test (these problems start with homework #01). Part II will be a test designed to test your knowledge of the concepts and your ability to state definitions precisely and correctly. On each test I reserve the right to ask at least one question on anything I wish. Part I will have a weight of 2/3 and part II 1/3 for grading purposes.

Individual Work: If time allows, I will assign individual proofs to be done and explained to the class. These presentations will be graded P(Pass) or F(fail).

Attendance Policy: Don’t miss class.

Student Learning Outcomes (SLO): At the end of MTH 440, a student who has studied and learned the material should be able to: 1. A knowledge of the definitions and characteristics of series of constants and series of functions. [PLO: 1,3,4] 2. A knowledge of the critical theorems of Real Analysis dealing with infinite series and integration. [PLO: 1,2,5] 3. The ability to do original mathematical proofs. [PLO: 1,3,5] 4. An understanding of the critical connections and differences between series of functions and series of constants. [PLO: 1,2,4] 5. The ability to use analytic knowledge to solve problems. [PLO: 1,2,3,4,5] 6. The ability to use the problem-solving process of experimentation, conjecture, and proof. [PLO: 1,3] 7. The ability to communicate mathematics to a heterogeneous audience in both oral and written form. [PLO: 1,2,5] 8. The ability to use available technology in the problem solving process. [PLO: 1,2,4]
Program Learning Outcomes (PLO): Students graduating from SFASU with a B.S. degree and a major in mathematics will:
1. Demonstrate comprehension of core mathematical concepts. [Concepts] (notion of theorem, mathematical proof, logical argument)
2. Execute mathematical procedures accurately, appropriately, and efficiently. [Skills] (calculus, algebra, routine, nonroutine, applied)
3. Apply principles of logic to develop and analyze conjectures and proofs. [Logical Reasoning] (quantifiers, breaking down mathematical statements, counterexamples)
4. Demonstrate competence in using various mathematical tools, including technology, to formulate, represent, and solve problems. [Problem Solving] (calculus tools, algebra tools, applied tools, nonstandard problem solving)
5. Demonstrate proficiency in communicating mathematics in a format appropriate to expected audiences. [Communication] (written, visual, oral)

Academic Integrity (A-9.1)
Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

Definition of Academic Dishonesty
Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit.

Please read the complete policy at http://www.sfasu.edu/policies/academic_integrity.asp

Withheld Grades Semester Grades Policy (A-54)
Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average.

The circumstances precipitating the request must have occurred after the last day in which a student could withdraw from a course. Students requesting a WH must be passing the course with a minimum projected grade of C.

Students with Disabilities
To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/
**SFASU Policy 5.4:** The federal definition of a credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates:

1. Not less than one hour of classroom or direct faculty instruction and a minimum of two hours out-of-class student work each week for approximately fifteen weeks for one semester or trimester hour of credit, or 10 to 12 weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time, or;
2. At least an equivalent amount of work as outlined in item 1 above for other academic activities as established by the institution including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours.

To this end, all students in courses offered by the Department of Mathematics and Statistics that wish to be successful should plan to spend at least two hours outside of class for every credit hour associated with this course. Expected activities to be completed in the time outside of class include reviewing notes from previous class meetings, reading assigned course resources, completing all assigned exercises and projects, and performing periodic assessment preparation.