Instructor Information
Dr. Andrew J. Siefker
Office:  MCS 219B
Phone:  486 - 5440 (office)
Email:  andrew.siefker@angelo.edu
Office Hours:  M:  10:00 – 11:00 a.m.;  2:00 – 4:00 p.m.
T:  9:00 – 9:30 a.m.;  3:00 – 4:00 p.m.
W:  10:00 – 11:00 a.m.;  2:00 – 3:00 p.m.
Th:  9:00 – 9:30 a.m.;  2:00 – 4:00 p.m.
F:  10:00 – 11:00 a.m.

or by appointment

Major Course Requirements

Text:  Introduction to Real Analysis, William F. Trench, available online at
http://ramanujan.math.trinity.edu/wtrench/texts/TRENCH_REAL_ANALYSIS.PDF

Prereqs:  • Completion of Mathematics Texas Success Initiative (TSI) requirements.
Grading:  • Exams .......................... 3 exams: 1/3 each
          • Homework and Quizzes ............ Bonus points on exams
          • Final ................................. Last of the 3 exams (Thursday, May 10, at 8:00 am)

Note:  I reserve the right to adjust the grading scheme and grading scale for an individual or the class as
warranted. Please note that ASU’s interpretation of federal law (Buckley amendment) prohibits
me from relaying your grades via phone or email.

Attendance:  Attendance will be taken but does not count towards your final grade.

Disclaimer
This syllabus is current and accurate as of its posting date, but will not be updated. For the most
complete and up-to-date course information, contact the instructor. Also, the subject matter schedule
listed below is tentative, and subject to change and adaptation. For current, updated information about
course topics, contact the instructor.
Course Policies:

Homework and Quizzes:
Homework is regularly collected and quizzes may be administered. When collected, homework is due when the instructor requests it (usually at the beginning of class.) Late homework is not accepted for correction, and receives a grade of ZERO. When given, quizzes count as a homework score and NO MAKE-UP QUIZZES will be given. You must show complete solutions (i.e. all steps and calculations) and write LEGIBLY to receive credit for any problem.

Homework turned in for a grade must follow a specific template. (1) Write the problems in numerical order, in a single column, using only one side of a sheet of paper. (2) Staple multiple sheets of paper together in the upper, left-hand corner. Be certain the problems are in numerical order. (3) Fold your homework longwise so that it opens like a book. Write your name, the course (e.g. Math 4331) and course time (e.g. 9 am), and the homework section number.

Examinations:
You must show complete solutions (i.e. all steps and calculations) and write LEGIBLY to receive credit for any “essay” problem. Scrap paper will be provided upon request; you may not use your own. If you miss or will miss an exam, contact the instructor ASAP. NO MAKE-UP EXAMS will be administered, and the use of calculators is at the discretion of the professor.

Grades:
All grades become final one week after the grade is recorded. Therefore, any questions you may have regarding a grade must be resolved before this one week deadline.

Class Etiquette:
Please be courteous of others in the class including: not utilizing cell phones, silencing cell phones, not habitually arriving late, not leaving during lectures (unless you notify me beforehand), not engaging in non-math related conversations or activities, etc.

Student Disability Services
ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA), and subsequent legislation.

The Office of Student Affairs is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability, and it is the student’s responsibility to initiate such a request by contacting.

Ms. Dallas A. Swafford, Director of Student Disability Services
325-942-2047
dallas.swafford@angelo.edu
Houston Harte University Center

Title IX
Angelo State University is committed to the safety and security of all students. If you or someone you know experience sexual harassment, sexual assault, domestic or dating violence, stalking, or discrimination, you may contact ASU’s Title IX Coordinator:

Michelle Nicole Boone, Director of Title IX Compliance
325-486-6357
michelle.boone@angelo.edu
Houston Harte University Center
**Student Absence for Observance of Religious Holy Days**

A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. See ASU Operating Policy 10.19 Student Absence for Observance of Religious Holy Day for more information.

**Incomplete Grade Policy**

It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 Grading Procedures for more information.

**Academic Integrity**

Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU. The College of Science and Engineering adheres to the Statement of Academic Integrity.

**Plagiarism**

Plagiarism is a serious topic covered in ASU’s Academic Integrity policy in the Student Handbook. Plagiarism is the action or practice of taking someone else’s work, idea, etc., and passing it off as one’s own. Plagiarism is literary theft.

In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list.

Papers are subject to be evaluated for originality via Turnitin. Resources to help you understand this policy better are available at the ASU Writing Center.

**Copyright Policy**

Students officially enrolled in this course should make only one printed copy of the given articles and/or chapters. You are expressly prohibited from distributing or reproducing any portion of course readings in printed or electronic form without written permission from the copyright holders or publishers.

**General Policies Related to this Course:**

All students are required to follow the policies and procedures presented in these documents:

- Angelo State University Student Handbook
- Angelo State University Catalog
Student Learning Outcomes

1. The students will demonstrate an understanding of factual knowledge including the mathematical notation and terminology used in this course. Students will read, interpret, and use the vocabulary, symbolism, and basic definitions used in set theory, function theory, and single variable calculus.

2. The students will describe the fundamental principles including the mathematical rules and theorems arising from the concepts covered in this course. Students will identify and apply the results of major theorems including theorems involving least upper bounds and greatest lower bounds, convergence of sequences, properties of continuous functions, differentiation, and integration.

3. The students will apply course material using with techniques and procedures covered in this course to solve problems. Students will utilize the facts, concepts, and techniques learned in this course to provide mathematical justification for basic theorems and related examples that form the foundations of calculus.

4. The students will develop specific skills, competencies, and thought processes sufficient to support further study, or work in this field or related fields. Students will acquire a level of proficiency in basic concepts and techniques necessary for further study in mathematics or for work in occupational fields requiring the application of logical inquiry or mathematical reasoning.

Course Content

Textbook: Introduction to Real Analysis, William F. Trench, available online at

http://ramanujan.math.trinity.edu/wtrench/texts/TRENCH_REAL_ANALYSIS.PDF

Content consists of the following topics, listed according to the corresponding chapters in the text.

Chapter 1: The Real Numbers. The Real Number System, Mathematical Induction, The Real Line
Chapter 4: Infinite Sequences and Series. Sequences of Real Numbers, Infinite Series of Constants, Function Sequences and Series, Power Series
Chapter 5: Metric Spaces. Introduction to Metric Spaces, Compact Sets in a Metric Space, Continuous Functions on Metric Spaces.
Additional Topics (if time permits): Real Valued Functions of Several Variables and the Structure of $\mathbb{R}^n$, Vector-Valued Functions of Several Variables, Integrals of Functions of Several Variables
**Required Texts or Readings:**
There is no required textbook for this course.

**Subject Matter Schedule**
The subject matter schedule listed below is tentative, and subject to change and adaptation. For current, updated information about course topics, contact the instructor.

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<tr>
<th>Week</th>
<th>Content</th>
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<td>Real Numbers, Induction</td>
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<td>Improper Integrals, Introduction to Sequences</td>
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<td>12</td>
<td>Sequences and Series</td>
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<td>13</td>
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<td>15</td>
<td>Metric Spaces, Review</td>
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<td>16</td>
<td>Final Exam (Test 3) (May 10th, 8:00-10:00)</td>
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