SPRING 2024  MATH 4399 CRN 28114  REAL ANALYSIS

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Meeting place TBD

PREREQUISITES: MATH 3341. Students are assumed to be proficient on all prerequisites

Office hours: Bell Hall 222 MTWR 12:10 – 1:00 pm or by appointment

Textbooks:  (1) *Introduction to topology and modern analysis*, G. Simmons
(2) *Calculus on manifolds*, M. Spivak

COURSE DESCRIPTION / COURSE OBJECTIVES

We will cover topics from the textbooks such as numerical sequences and series, power series, sequences and series of functions, uniform convergence, metric spaces, completeness, Banach spaces, compact sets, connected sets, equicontinuous families of functions, Arzela-Ascoli Theorem, Stone-Weierstrass Theorem, inverse and implicit function theorems.

COURSE ASSIGNMENTS AND GRADING

Material to be covered and presented by the student will be assigned regularly. The course grade will reflect the level of diligence and performance with which these assignments are performed.

COVID-19 PRECAUTIONS

For official up-to-date UTEP Covid-19 announcements and policies please visit https://www.utep.edu/liberalarts/theatre-dance/resources/covidprotocol.html

For more information about the current rates, testing, and vaccinations, please visit epstrong.org

SPECIAL DATES (see UTEP Academic Calendar)

- Mar 11th - 15th  Spring Break (no classes)
- March 28th  Drop Day (Last day to drop with a W)
- March 29th  Cesar Chavez Day (no classes)
- May 2nd  Last Day of Classes

COURSE COMMUNICATION

- Office Hours
- Email: When e-mailing me, be sure to email from your UTEP student account and include the course number and class meeting time in the subject line.  In the body
of your e-mail, clearly state your question. At the end of your e-mail include your first and last name, and your university identification number.

- **Announcements:** Check the Blackboard announcements frequently for any updates, deadlines, or other important messages.

**NETIQUETTE**

As we know, sometimes communication online can be challenging. It’s possible to miscommunicate what we mean or to misunderstand what our classmates mean given the lack of body language and immediate feedback. Therefore, please keep these netiquette (network etiquette) guidelines in mind. Failure to observe them may result in disciplinary action.

- Always consider audience. This is a college-level course; therefore, all communication should reflect polite consideration of other's ideas.
- Respect and courtesy must be always provided to classmates and the instructor. No harassment or inappropriate postings will be tolerated.
- When reacting to someone else's message, address the ideas, not the person. Post only what anyone would comfortably state in a face-to-face situation.
- Blackboard is not a public internet venue; all postings to it should be considered private and confidential. Whatever is posted on in these online spaces is intended for classmates and professor only. **Do not copy documents and paste them to a publicly accessible website, blog, or other space.**

**COPYRIGHT STATEMENT FOR COURSE MATERIALS**

All materials used in this course are protected by copyright law. The course materials are only for the use of students currently enrolled in this course and only for the purpose of this course. They may not be further disseminated.

**ATTENDANCE AND PARTICIPATION**

Attendance in the course is determined by participation in the lectures and learning activities of the course. Your participation in the course is important not only for your learning and success but also to create a community of learners. Participation is accomplished by Reading/Viewing all course materials to promote their understanding. **It is also strongly recommended attending the lectures where questions can be asked directly.**

**COURSE DROP POLICY**

According to UTEP Curriculum and Classroom Policies, “When, in the judgment of the instructor, a student has been absent to such a degree as to impair his or her status relative to credit for the course, the instructor may drop the student from the class with a grade of “W” before the course drop deadline and with a grade of “F” after the course drop deadline.” See academic regulations in the UTEP Undergraduate Catalog for a list of excused absences. **Therefore, if I find that you are at risk of failing due to non-performance in the course, including excessive absence, neglect, or lack of effort (for example, after missing 3 quizzes or 1 midterm without communicating with the instructor and providing an academically valid excuse), I may drop you from the course.**
If you feel that you are unable to complete the course successfully, please let me know and then contact the Registrar’s Office to initiate the drop process before the drop deadline. If you do not, you are at risk of receiving an "F" for the course.

**MAKE-UP WORK**

Extra credit work and the final exam cannot be made up. **Make-up midterms will be given only in the case of a documented academically valid reason.** If you miss a test and the reason is not considered excusable, you will receive a zero for the test. It is therefore important to reach out to me—in advance if possible—and explain with proper documentation why you missed a given course examination. Once a deadline has been established for make-up work, no further extensions or exceptions will be granted.

**INCOMPLETE GRADE POLICY**

Incomplete grades may be requested only in exceptional circumstances after you have completed all midterm exams and before taking the final exam. Talk to me immediately if you believe an incomplete is warranted. If granted, we will establish a contract of work to be completed with deadlines.

**ACCOMMODATIONS POLICY**

The University is committed to providing reasonable accommodations and auxiliary services to students, staff, faculty, job applicants, applicants for admissions, and other beneficiaries of University programs, services and activities with documented disabilities in order to provide them with equal opportunities to participate in programs, services, and activities in compliance with sections 503 and 504 of the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act (ADA) of 1990 and the Americans with Disabilities Act Amendments Act (ADAAA) of 2008. Reasonable accommodations will be made unless it is determined that doing so would cause undue hardship on the University.

Students requesting an accommodation based on a disability must register with the UTEP Center for Accommodations and Support Services (CASS). Contact the Center for Accommodations and Support Services at 915-747-5148, or email them at cass@utep.edu, or apply for accommodations online via the CASS portal.

Each student must discuss the situation with me in person before any CASS accommodation can be implemented.

**SCHOLASTIC INTEGRITY**

Academic dishonesty is prohibited and is considered a violation of the UTEP Handbook of Operating Procedures. It includes, but is not limited to, cheating, plagiarism, and collusion. Cheating may involve copying from or providing information to another student, possessing unauthorized materials during a test, or falsifying research data on laboratory reports. Plagiarism occurs when someone intentionally or knowingly represents the words or ideas of another as ones' own. Collusion involves collaborating with another person to commit any academically dishonest act. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. All suspected violations of academic integrity at The University of Texas at El Paso must be
reported to the Office of Student Conduct and Conflict Resolution (OSCCR) for possible disciplinary action. To learn more, please visit HOOP: Student Conduct and Discipline.

**COURSE RESOURCES**

UTEP provides a variety of student services and support:

**Technology Resources**
- **Help Desk:** Students experiencing technological challenges (email, Blackboard, software, etc.) can submit a ticket to the UTEP Helpdesk for assistance. Contact the Helpdesk via phone, email, chat, website, or in person if on campus.

**Academic Resources**
- **UTEP Library:** Access a wide range of resources including online, full-text access to thousands of journals and eBooks plus reference service and librarian assistance for enrolled students.
- **Math Tutoring Center (MaRCS):** Ask a tutor for help and explore other available math resources.

**Individual Resources**
- **Military Student Success Center:** Assists personnel in any branch of service to reach their educational goals.
- **Center for Accommodations and Support Services:** Assists students with ADA-related accommodations for coursework, housing, and internships.
- **Counseling and Psychological Services:** Provides a variety of counseling services including individual, couples, and group sessions as well as career and disability assessments.