

**THE UNIVERSITY OF TEXAS AT EL PASO**  
**COLLEGE OF SCIENCE**  
DEPARTMENT OF MATHEMATICS

**Seminar - 36318 - MATH 5370 – Algebra & Number Theory**

Online on Blackboard	June 08 –Jul 31	Summer 2020
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Instructor: Dr. Emil Schwab

Office Location: BH 201

Contact Info:

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E-mail address: [eschwab@utep.edu](mailto:eschwab@utep.edu)

Office Hrs: Online/e-mail. I will try to return e-mails within 24 hours (except weekends)

Textbook: Elementary Number Theory/ David M. Burton, 7<sup>th</sup> edition  
Instructor's Lecture Notes

Contents: This course is designed only for students in the MATM and M.Ed Program. Topics include: Divisibility Theory, Diophantine Equations, Primes and their Distribution, Theory of Congruences, Chinese Remainder Theorem, Fermat's Theorem, Groups and Applications in Elementary Number Theory (include Euler's Totient Theorem, Wilson Theorem) Rings, The Ring of Arithmetic Functions via Dirichlet Convolution and The Group of Multiplicative Arithmetic Functions, Möbius Inversion Formula

Goal: This class deepens students' understanding of concepts, and students' ability to think abstractly and to elaborate rigorous proofs.

Exams and Assignments: There will be two exams. Homework will be assign regularly. The exams will include problems from homework.

Grading Policy: Each exam (worth of 100 points) represents 50% of the final grade. The final grade will be determined by the average of the exam's scores respecting the following grading scale:

A 85-100; B 70-84; C 55-69; D 40-54; F below 40.

Make-up Policy: Make-ups/retests will be given only under extraordinary circumstances documented by the student and at the discretion of the instructor.

Attendance & Withdrawal: This is an online course and as such you do not have a strict attendance guidelines. There will be time set up only for exams. You are expected to work for completing successfully the course several times per week; daily is best.

The deadline to drop with an automatic W is **July 10, 2020.**

After the drop deadline the College of Science will not approve any drops (W)

Academic Integrity Policy: Students are required to follow UTEP policy (Academic Dishonesty at UTEP) and to comply with the Regents' Rules and Regulations.  
<http://academics.utep.edu/Default.aspx?tabid=23785>  
<http://www.utsystem.edu/bor/rules/homepage.htm>

Disability Statement: If you have a disability and need extra time for exams please contact The Center for Accommodations and Support Services (CASS) at 747-5148, or by email to [cass@utep.edu](mailto:cass@utep.edu), or visit their website at [www.sa.utep.edu/cass](http://www.sa.utep.edu/cass).  
The student is responsible for sending to the instructor any CASS accommodation letter.

Military Statement: If you are a military student with the potential of being called to military service and/or training during the course of the semester, you must contact the instructor as soon as possible.

Tentative Schedule: July 3 – Exam 1 (time TBA)  
July 30 – Exam 2 (time TBA)

(the dates for the exams may be changed during the semester)