## MATH 3314-001 DISCRETE MATHEMATICS

Summer 2016 PKH 111 Mo, We 1 – 2:50 pm

**Instructor**: Dr. Karl Backs

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Office Hours: Mo, We 12 - 1 pm

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<u>Textbook</u>: Discrete Mathematics and Its Applications, 7th Edition, Kenneth Rosen, McGraw Hill.

Prerequisites: C or better in 1426 or concurrent enrollment

## **IMPORTANT DATES**:

June 6 First Day of Classes

June 23 Census Day

July 4 Independence Day Holiday

July 21 Last Day to Drop Classes (submit requests to advisor by 4 pm)

August 11 Last Day of Classes

August 15 1 – 3 pm Final Exam

**ATTENDANCE**: Regular class attendance is important and is expected, but it is not used in calculating your grade.

**EVALUATION**: Your semester grade will be determined solely by your performance on two midterm exams, a final exam, and regular weekly quizzes. Your grade will be calculated based on the following distribution.

Midterm 1 20% Monday, June 27

Midterm 2 25% Wednesday, July 20

Final Exam 35% Monday, August 15

Quizzes 20%

Homework and Quizzes: Exercises from the textbook will be assigned as homework problems at the end of each lecture. These homework assignments will not be turned in for credit. The weekly quizzes will be based on the previously given homework assignments and will be graded. Quizzes will be given during the last 15 – 20 minutes of class. No Make-Up quizzes will be given for any reason. At the end of the semester, your lowest 2 quiz grades will be dropped.

<u>Exams:</u> Each exam will be roughly comprehensive and will last the entire class period. **No Make-Up exams will be given for any reason.** 

## Objectives and Nature of the Course Content:

This is an elementary course intended to introduce the student to some of the background mathematics associated with problems primarily from the fields of computer science, mathematics and communications. Topics include: Logic, sets and the usual definitions and operations associated with them; mathematical induction, permutations and combinations, the binomial theorem, and applications of these things to recursively defined functions and formulas, summing finite series in closed form (a number of these involve binomial coefficients), graph theory and presentation of graphs by matrices and diagrams in several ways, relations, and a number of the important algorithms associated with graphs and computer science. Boolean algebra and the simplification of Boolean expressions are also covered in some depth. The material will be presented in roughly the order above.

DROP POLICY: The last day this semester to drop a course is July 21. Any student who drops the course on or before will receive a W. Students must contact an advisor in their major in order to drop a course.

Academic Integrity: Students enrolled in this course are expected to adhere to the UT Arlington Honor Code:

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence. I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

UT Arlington faculty members may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System Regents' Rule 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University.

Student Support Services: THE MATH CLINIC IN ROOM 325 IS BY FAR THE BEST PLACE TO GO FOR HELP WITH THE COURSE. THE TUTORS ARE CAREFULLY CHOSEN.

Electronic Communication: UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at http://www.uta.edu/oit/cs/email/mavmail.php.

Student Feedback Survey: At the end of each term, students enrolled in classes categorized as "lecture," "seminar," or "laboratory" shall be directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit http://www.uta.edu/sfs.

Final Review Week: A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week unless specified in the class syllabus. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

Emergency Exit Procedures: Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit located in the corners of the building. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist handicapped individuals.

**Title IX:** The University of Texas at Arlington is committed to upholding U.S. Federal Law "Title IX" such that no member of the UT Arlington community shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity. For more information, visit <a href="https://www.uta.edu/titleIX">www.uta.edu/titleIX</a>