

## ***CS 3305 – Discrete Math for Computer Science 2***

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### **Course Information**

CS 3305 Discrete Mathematics for Computing II  
Fall 2016, section 501

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### **Professor Contact Information**

Dr. James Willson  
jkw053000@utdallas.edu  
Office Hours: Th 1:30 – 3:30, and by appointment; ECSS 4.608

Teaching Assistant TBA

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### **Course Pre-requisites, Co-requisites, and/or Other Restrictions**

(CE 2305 or CS 2305 or TE 2305) with a grade of C or better, and (MATH 2414 or MATH 2419)

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### **Course Description**

Discrete Mathematics for Computing II (3 semester hours) Advanced counting methods; recurrence relations, divide and conquer algorithms, principle of inclusion and exclusion. Partial orders and lattices, Algorithmic complexity. Graph theory. Strings and languages. Number theory. Elements of modern algebra.

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### **Student Learning Objectives/Outcomes**

Ability to recognize and construct proofs  
Ability to recognize and use equivalence relations and partial orderings  
Ability to use recursive definitions and solve recurrence relations  
Ability to understand advanced counting methods  
Ability to understand graph theory and basic graph algorithms  
Ability to use tree terminology and basic tree algorithms

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### **Required Textbooks and Materials**

Text: “Discrete Mathematics and its Applications”, Seventh Edition, Kenneth H. Rosen, McGraw Hill, 2012

## **Assignments & Academic Calendar**

We will cover selected topics from chapters 2, 5, 8, 9, and 10 of the textbook.

Tentative exam dates:

Thursday, September 15

Thursday, October 20

Tuesday, December 6 (Last day of class)

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## **Grading Policy**

*Homework: 10%*

*Exams: 90%*

Grading will be on a curve, and will not be decided until all grades are in.

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## **Course & Instructor Policies**

Class attendance is mandatory. Three consecutive unexcused absences will result in a one letter drop of the course grade. Four consecutive unexcused absences will result in a grade of F for the course. Excused absences must be coordinated with the instructor prior to the absence, except for emergencies. A student who misses a class is still responsible for any handouts, announcements, reading material and contents of the missed class.

All make-up exams are scheduled and given at the discretion of the instructor.

Make-up exams are only given to those students who coordinate the missing of an exam prior to the originally scheduled exam date and time, or for an emergency.

All assignments must be submitted online via eLearning. Unless otherwise specified in the assignment, the submission must be a single pdf file. This is the only acceptable method of submission. All submissions can be revised before the deadline. Late work will be accepted until the date noted on the assignment.

You are encouraged to discuss the assignments with your classmates. You are especially encouraged to seek help with the assignments at the computer science mentor center. You may not, however, simply copy each other's assignments.

No extra credit will be given.

## **Discrete Math Mentor Center**

All students are encouraged to visit the CS Department Discrete Math Mentor Center frequently during the semester. The center is staffed by student mentors who can provide help on homework and other items related to our class. You may visit the center to study for tests, to do your homework, to work on exercises, to participate in study and review sessions, and to get one-on-one coaching on Discrete Math concepts.

The main walk-in tutoring room is ECSS 4.415, and is open:

M-Th: 11:30 AM – 10:00 PM

F: 11:30 AM – 6:00 PM

Sa: Noon – 6:00 PM

Su: Noon – 8:00 PM

The center website is [csmc.utdallas.edu](http://csmc.utdallas.edu), and can only be accessed from the campus network.

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## **UT Dallas Syllabus Policies and Procedures**

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.

Please go to <http://go.utdallas.edu/syllabus-policies> for these policies.

***The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.***