Course Syllabus

Course Information
CS/CE/SE 2305-003
Discrete Mathematics for Computing
ECSS 2.306
Monday, Wednesday, 11:30am-12:45pm
Spring 2017

Professor Contact Information
Instructor: Dr. Eric William Becker
Telephone: (972) 883-3862
Email: Eric.Becker@utdallas.edu
Office: ECSS 3.407

Office Hours:

Monday:	10:30 am	-	11:20 am
Tuesday:	5:30 pm	-	6:50 pm
Wednesday:	10:30 am	-	11:20 am
Thursday:	5:30 pm	-	6:50 pm

Additional office hours by appointment

Course Pre-requisites, Co-requisites, and/or Other Restrictions
Prerequisite: Score of at least 75% in ALEKS or MATH 2312 with a grade of C or better.

Course Description
Principles of counting. Boolean operations. Logic and proof methods. Recurrence relations. Sets, relations, functions. Elementary graph theory. Elementary number theory.

Student Learning Objectives/Outcomes

- Ability to use and apply basic definitions and properties of logic
- Ability to recognize and construct valid proofs including proofs by induction
- Ability to understand what an algorithm is, use algorithms, use Big-O notation and algorithmic complexity
- Ability to use basic counting techniques
- Ability to use and apply basic definitions and properties of sets, relations, functions

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Required Textbooks and Materials

Discrete Mathematics and Its Applications by Kenneth Rosen, 7th Edition 2012

Grading Policy

Homework	20%
Midterm	40%
Final	40%

Above 97	A+
93-96	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
70-79	C
60-69	D
Below 60	F

Homework
Homework will be assigned once a week. Homework is 20% of the grade and considered to be individual work. The lowest homework grade will be dropped from the homework average.

Exams
Exams will be a combination of definitions and mathematical problems. Questions are allotted based on the nature of the material. A Review will be held in class before each exam to go over the included nature and topics. Exams are comprehensive or not depending on the nature of the material.

Regrade Policy

If for some reason an assignment or exam must be regraded, please follow procedure.

All students have one week after the assignment grade is posted to bring the problem to the attention of the Teaching Assistant or the Instructor. After a week, no regrades will be available.

For homework assignments, the students should contact the Teaching Assistant *first*. If the situation cannot be resolved, the teaching assistant will forward the issue on to the instructor.

For exams, the instructor will be grading the exams themselves. If a student desires a regrade of an assignment, the exam must be given back to the instructor with a note written on the front page specifically asking for a recheck with details.

The instructor will not do a regrade by e-mail or telephone, such inquiries must be done during office hours.

Do not ask about a regrade of an assignment during an examination.
Any grade questioned during an examination will automatically become a 0.

Any student requesting more credit for an assignment because of a peer having a higher grade must bring the peer along to the regrade. Neither the teaching assistant nor the instructor can open the peer's academic record for comparison for the inquiring student without the peer's express permission.

Course & Instructor Policies

Late Work

Assignments will not be accepted late. Students are expected to have read the instructions and to know the time an assignment is due. If E-learning/Blackboard has an error, and Dr. Becker finds out, an extension will be granted.

Make Up Exams

- If a student sits any exam, this means the student accepts the responsibility for that exam. Once taken, the exam will not be given again, and no make-up will be scheduled.
- If a student cannot make the midterm exam, and the student brings adequate documentation of why they did not attend, (such as a doctor's note), then the Final Exam score will be substituted for the midterm.
- If a student informs the instructor they cannot make the Final Exam **before** it is given, then a make-up exam will be scheduled. This includes the University's 3 Final Exam in a Day policy. End of semester travel arrangements are not an acceptable reason for missing the Final Exam.
- If the student does miss the Final Exam, and the student brings adequate documentation of why they did not attend, (such as a doctor's note), a grade of Incomplete will be given and a make-up exam will be scheduled. If neither action is taken, the Final Exam will be a zero.

A dental appointment or other non-emergency health situation is not an acceptable excuse for missing an examination you know about months in advance.

Extra Credit

For this semester, McGraw-Hill has offered the Connect online system. Dr. Becker plans to experiment with this system over the course of the semester. Participation and a written review of the system is worth an extra 5 points of the semester score.

Dr. Becker sometimes includes an extra credit feature as an extra problem on the exams.

Special Assignments

Due to the availability of extra credit during the semester, no special assignments are available.

Class Attendance

Departmental Policies: Attendance

As of Fall 2016, The Departmental Attendance Policy is in effect.
Any student missing three class meetings will automatically Lose a Full Letter Grade.
Any student missing four class meetings will automatically Fail the Class.
As of Spring 2017, Absences no longer need to be consecutive.

Additional Attendance Policies:

Students who miss class must have a valid reason for not attending class. The situation should be clearly described in an e-mail to Dr. Becker directly. For medical issues, a doctor's note is the preferred form of proof. If you are sick, please go to the doctor and get a note.
Being late for class because of parking is not a valid excuse.

If a student must travel to attend conferences, present papers, contests, or defend their work and the instructor is informed *in advance*, then the attendance will be forgiven for those dates.
Travelling without an acceptable academic justification will not be accepted.

DO NOT ASK TO BE PUT ON THE ROLL AFTER THE ROLL CALL HAS BEEN CLOSED.
YOU WILL NOT BE PUT ON THE ROLL.

Classroom Citizenship

Be on time.

Depending on the lecture, you may be asked to put away electronic devices, be called to be quiet, return to your seat, or to put backpacks away.

Dr. Becker has a very bad habit of allowing students to ask off-topic questions...and then putting the off-topic questions on exams or quizzes. Anything covered in class is fair game, including the syllabus.

Science, Engineering, and Mathematics are dignified disciplines.
Pleading for grades is unacceptable for this course.

Inappropriate behavior is not acceptable.
Formal Notice: No form of bias is permitted in this course, including the use of crude humor. Anyone harassing the instructor, grader, teaching assistant, or fellow student with inappropriate comments will fail the course. This includes references written into computer programs, answering "joke" emails in class, or playing inappropriate videos. The instructor will decide what is inappropriate.

Ethical Behavior

Plagiarism is the unacknowledged incorporation of another's work into work which a student offers for credit. Using source code of another person's program, even temporarily or from the web, is considered *plagiarism*. Example: Someone putting their name on someone else's homework assignment and turning it in is cheating.

Collusion is the unauthorized collaboration of another person in preparing work that a student offers for credit. Allowing another person to use your source code, even temporarily, is considered *collusion*. Example: Giving someone your homework, and then that person turns it in as their own work, then the giver is also guilty of cheating.

Dr. Becker's penalty for any form of dishonesty is *a score of -100 on the entire assignment.*

Comet Creed

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

"As a Comet, I pledge honesty, integrity, and service in all that I do."

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.

Assignments & Academic Calendar

Date	Day	TOPICS	Chapter	HW Assign	HW Due
9-Jan	Mon	First day of Class			
9-Jan	Mon	Syllabus			
11-Jan	Wed	Introduction			
16-Jan	Mon	Martin Luther King Jr Day			MLK
18-Jan	Wed	Introduction		HW1	
23-Jan	Mon	Logic	1		
25-Jan	Wed	Census Date			
25-Jan	Wed	Logic	1	HW2	HW1
30-Jan	Mon	Logic	1		
1-Feb	Wed	Logic	1	HW3	HW2
6-Feb	Mon	Sets, Relations, and Functions	1		
8-Feb	Wed	Sets, Relations, and Functions	1	HW4	HW3
13-Feb	Mon	Sets, Relations, and Functions	1		
15-Feb	Wed	Sets, Relations, and Functions	1	HW5	HW4
20-Feb	Mon	Algorithms and Big-O Notation	2		
22-Feb	Wed	Algorithms and Big-O Notation	2		HW5
27-Feb	Mon	Review	Midterms		Midterms
1-Mar	Wed	Midterm Exam	Midterms		Midterms
6-Mar	Mon	Algorithms and Big-O Notation			
8-Mar	Wed	Return Midterm	Return		Return
13-Mar	Mon	Spring Break			
15-Mar	Wed	Spring Break			
20-Mar	Mon	Algorithms and Big-O Notation	2		
22-Mar	Wed	Algorithms and Big-O Notation	2	HW6	
27-Mar	Mon	Last Withdrawl Day			
27-Mar	Mon	Proofs including Proof by Induction	3		
29-Mar	Wed	Proofs including Proof by Induction	3	HW7	HW6
3-Apr	Mon	Proofs including Proof by Induction	3		
5-Apr	Wed	Proofs including Proof by Induction	3	HW8	HW7
10-Apr	Mon	Basic Counting Techniques	4		
12-Apr	Wed	Basic Counting Techniques	4	HW9	HW8
17-Apr	Mon	Basic Counting Techniques	4		
19-Apr	Wed	Basic Counting Techniques	4		HW9
24-Apr	Mon	Review			
26-Apr	Wed	Slip Day			
1-May	Mon	Reading Day			
TBA	Wed	Final Exam			