OAKLAND UNIVERSITY, DEPARTMENT OF MATHEMATICS AND STATISTICS

STUDENT INFORMATION SHEET AND SYLLABUS

Instructor	CRN	Class Time and Room	Office Hour	Phone	Email
Li Li	10404	MWF10:40-11:47am at 163 SFH	MW 9:30-10:30am, T 2:20-3:20pm, at 350 MSC	(248)-370-3447	li2345@oakland.edu

COURSE: APM 2663, **Discrete Mathematics**, Winter 2018

TEXT: *Discrete Mathematics,* by Jerrold Grossman

PREREQUISITES: A 2.0 or better in MTH 1555 or an equivalent course at another school is required.

COURSE CONTENT: We shall teach concepts and methods of discrete mathematics with an emphasis on their application to computer science. The following will be covered: Logic and proofs, sets, functions and relations, algorithms, induction and recursion, combinatorics, graphs and trees.

HOMEWORK: Homework will be assigned weekly but will not be handed in for grading. We will spend some class time discussing the homework.

QUIZZES, EXAMS AND FINAL: There will be 5 quizzes, 2 exams, and a comprehensive final exam. The detail is in the following table.

	Time	Points (500 total)
Quiz 1	Jan 12 (Fri)	20
Quiz 2	Jan 26 (Fri)	20
Exam 1	Feb 5 (Mon)	100
Quiz 3	Feb 16 (Fri)	20
Quiz 4	Mar 9 (Fri)	20
Exam 2	Mar 19 (Mon)	100
Quiz 5	Apr 6 (Fri)	20
Final	12-3pm, Apr 23 (Mon)	200

GRADING POLICY: The following list shows the lowest possible grade that a given percentage score will earn (the grade may be higher than this): 95%--> 4.0, 80%--> 3.0, 65%-->2.0, 50%--> 1.0, less than 50%--> 0.0. There are **no extra credits** for the course.

MAKE-UP POLICY: No make-up exams or will be given. If you miss one exam and have a **valid documented excuse,** your final exam score will replace the missing one; otherwise the missed exam will be counted as a 0. In case the University is officially closed on a scheduled exam date the exam will be held on the next class date that the University is officially open. Closures during the final exam period require rescheduling by the Registrar.

ACADEMIC HONESTY: Cheating is a serious academic crime. Oakland University policy requires that all suspected instances of cheating be reported to the Academic Conduct Committee for adjudication. Anyone found guilty of cheating in this course will receive a course grade of 0.0, in addition to any penalty assigned by the Academic Conduct Committee.

Tentative Schedule (APM2663, Winter 2018)

	Monday	Tuesday	Wednesday	Thursday	Friday
1	Jan 1		1.1 Propositions		1.2 Logical quantifiers
2	Jan 8 1.3 Proofs		2.1 Set Theory		2.2 Set with Structure **Quiz 1**
3	Jan 15 Martin Luther King		2.3 Operations		2.3
4	Jan 22 3.1, 3.2 Functions		3.3 Relations		3.4 Equiv. Relations **Quiz 2**
5	Jan 29 4.1 Algorithm		4.2 Pseudocode		**Review**
6	Feb 5 **Exam 1**		4.3 Big-Oh		5.1 Recursive Definition
7	Feb 12 5.2 Recursive Algorithm		5.3 Mathematical Induction		6.1 Elementary Combinatorics **Quiz 3**
8	Feb 19 Winter recess				
9	Feb 26 6.2 Permutations &Combinations		6.3 Combination w Repetitions		6.3
10	Mar 5 6.4 Pigeonhole Principle		7.1 Combinatorial Identities		7.2, 7.3 Recursive Relations **Quiz 4**
11	Mar 12 8.1 Graphs		8.1 Graphs 8.2 Paths		**Review**
12	Mar 19 **Exam 2**		8.3 Graph Representation		8.4 Planarity for graphs
13	Mar 26 8.4		8.5 Coloring		9.1 Trees
14	Apr 2 9.2 Spanning Trees		9.3 Tree Traversal		10.1 Shortest paths **Quiz 5**
15	Apr 9 10.1		10.2 Minimal Spanning Trees		Review/Catch up
16	Apr 16 **Review**	Winter classes end 10pm	Study day		
17	Apr 23 **Final Exam 12-3pm**				