INTRODUCTION TO PROBABILITY:
MATH 464
TUES. & THURS. : 9:30 TO 10:45 AM

SCHEDULE: SPRING 2016

Instructor:	Office:	Office Hours:	Phone:
Robert Sims	ENR2 S346	Tues. 2 -3 pm Wed. 2 -3 pm	626-1990

We will cover most of chapters 1 to 8 in the textbook.

Thursday, Jan. 14 - class 1

1.1 Experiments with chance
1.2 Sample space, events
1.3 Probabilities

Tuesday, Jan 19 - class 2, Thursday, Jan 21- class 3

1.4 Probability spaces
1.5 Discrete sample spaces
1.6 conditional probability
1.7 Independence
1.8 Partition theorem

Wednesday, Jan 27 - last day to drop without a grade

Tuesday, Jan 26 - class 4, Thursday, Jan 28- class 5

1.9 Continuity of the probability measure
2.1 Probability mass functions
2.2 Discrete RV catalog
2.3 Functions of discrete RV's
2.4 Expected value

Tuesday, Feb 2 - class 6, Thursday, Feb 4- class 7

2.5 Conditional expectation and the partition theorem
A Combinatorics

A.1 First principles
A.2 Permutations

Tuesday, Feb 9 - class 8, Thursday, Feb 11- class 9

A.3 Combinations
3.1 Joint discrete distributions
3.2 Expectation in joint case

Tuesday, Feb 16 - class 10, Thursday, Feb 18- class 11

3.3 Independence of discrete RV's
4.1 Generating functions
4.2 Sums of independent RV's

Tuesday, Feb 23- class 12

Review

Thursday, Feb 25- class 13

FIRST EXAM

Tuesday, Mar 1- class 14, Thursday, Mar 3- class 15

5.1 Continuous RV's and densities
5.4 Catalog of continuous RV's
5.5 Functions of a RV

Tuesday, Mar 8- class 16, Thursday, Mar 10 - class 17

5.6 More on Expected value of a continuous RV
5.7 Histograms and meaning of pdf
Multivariate calculus review
6.1 Joint density functions
6.2 Independent and marginal distributions
6.3 Expected value

Mar 14-18 - Spring Break - no class

Tuesday, Mar 22 class 18, Thursday, Mar 24- class 19

6.4 Function of two random variable
6.5 Moment generating functions

6.6 Joint cdf's and more independence

Tuesday, Mar 29 - last day to drop with a grade of W or E

Tuesday, Mar 29 - class 20, Thursday, Mar 31 - class 21

8.1, 8.2 Weak law of large numbers, Chebyshev's inequality
6.7 Change of variables

Tuesday, Apr 5 - class 22, Thursday, Apr 7 - class 23

6.7 Change of variables -cont
7.3 Variance and the correlation coeffecient
8.3 Central Limit theorem

Tuesday, Apr 12 - class 24

Review

Thursday, Apr 14- class 25

SECOND EXAM

Tuesday, Apr 19 - class 26, Thursday, Apr 21 - class 27

8.3 Central Limit theorem -cont
6.8 Conditional density functions and expectations
8.3 Central Limit theorem -cont
Review

Tuesday, Apr 26 - class 28, Thursday, Apr 28 - class 29

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Review
Tuesday, May 3 - class 30

Review

Tuesday, May 10, 8-10am

FINAL EXAM