

# MATH 333- SPRING 2011

Lecture	Section & Topic	Homework Assignments
1	1.1- 1.4 Role of Statistics	none
2	6.1- 6.4 Descriptive statistics: stem-and-leaf, histograms, mean, median, variance and standard deviation, boxplots	3 (also construct a box plot for this data), 8, 11, 16, 56
3	2.1- 2.2 Probability: sample space, events, interpretations of probability	30, 35, 42, 45, 47a, 54, 59, 63
4	2.3- 2.4 Addition rules and Conditional probability	68, 72, 76, 81, 84
5	2.5- 2.6 Multiplication rules, independence	94, 96, 97, 103, 107, 115
6	2.7 Bayes' theorem	116, 120, 122, 144, 148, 154, 157
7	3.1- 3.3 Discrete random variables: probability mass function, Cumulative distribution function	10, 16, 21, 26, 31, 36, 141, 145
8	3.4- 3.5 Mean and variance of discrete distribution, uniform distribution	42, 48, 54 (also construct a c.d.f. for this distribution), 119
9	3.6- 3.7 Binomial Random Variables, Geometric distribution	71, 73, 76, 79, 85
10	L► <b>REVIEW FOR EXAM #1</b>	<b>STUDY FOR EXAM #1</b>
	L►	<b>MIDTERM EXAM I: WEDNESDAY ~ FEBRUARY 16, 2011</b>
11	3.9 Poisson random variables	110, 115, 118, 134
12	4.1- 4.3 Continuous random variables: pdf and cdf	5, 8, 12, 15, 16
13	4.4- 4.5 Mean and Variance, Expected values, Uniform Distribution	27, 30, 36, 38
14	4.8 Exponential Distribution	81, 84, 90, 92 (a,b,c,d)
15	4.6 Normal distribution	41, 46abc, 54, 56, 60
16	4.7 Normal approximations	68, 72
17	7.1- 7.2 Distribution of the sample mean, the central limit theorem	3, 5, 7,9 (error in book, let stdev=10.5), 10

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<b>18</b>	L▶	<b>REVIEW FOR EXAM #2</b>	<b>STUDY FOR EXAM #2</b>
	L▶	MIDTERM EXAM II: WEDNESDAY ~ MARCH 23, 2011	
<b>19</b>	L▶	<b>(3/28) LAST DAY TO WITHDRAW FROM THIS COURSE</b>	
	8.1- 8.3	Confidence interval on the mean of a Normal distribution	8, 14, 19ab
<b>20</b>	8.1- 8.3	The t-Distribution	24, 25, 34b
<b>21</b>	8.4- 8.6	Confidence intervals on the variance, standard deviation, and population proportion	42, 46ac, 48, 52ab
<b>22</b>	9.1- 9.2	Hypothesis Testing Basics; Tests on the mean of a Normal distribution (rejection region approach only)	30, 39a, 38a, 42a, 43a
<b>23</b>	9.1- 9.2	Tests of hypothesis on the mean of a normal dist.: one-sided and two-sided hypotheses, P-values	38abc, 42abc, 43abc
<b>24</b>	9.1 & 9.3	Type I and II error, Small sample tests on the mean	36, 39abc, 37ab, 44, 50a, 52a (do not find a p-value), 107
<b>25</b>	9.4- 9.5	Tests on the variance and standard deviation, Test on a population proportion	64, 73, 74a, 76, 80, 82a, 84
<b>26</b>	10.1-10.2	Tests on the difference in the means of two Normal distributions	5ab, 6ab, 32, 35ab
	10.4	Paired t-test	5ab, 6ab, 32, 35ab
<b>27</b>	L▶	<b>REVIEW FOR FINAL EXAM</b>	<b>STUDY FOR FINAL EXAM</b>
	L▶	TUE <b>MAY 3</b> CLASSES FOLLOW A <b>FRIDAY</b> SCHEDULE	
	L▶	<b>5/4</b> READING DAY	
<b>Finals</b>	FINAL EXAM WEEK: MAY 5-11, 2011		