

Theory and Applications of Probability and Statistics I  
MTH/STA 471 – Fall 2007  
MW 3-4:15 pm, LDB 401

Instructor: Dr. Melinda Holt  
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Office Hrs: MWF 9:15-10 am  
MW 12:30-2 pm  
T 10 – 11:30 am  
*and by appointment*

Text: *Probability and Statistical Inference, 7<sup>th</sup> Edition, Hogg and Tanis*

Course Objective: To develop an understanding of and the facility for the theory and applications of probability and distributions.

Course Description: Topics include basic concepts and properties of probability, random variables, statistical distributions, measures of central tendency, variance, covariance, correlation, functions of random variables, sampling distributions, and the Central Limit Theorem.

Prerequisite: MTH 143

Exams: There will be 3 mid-term exams and a mandatory comprehensive final exam. Exam dates are scheduled for Sept 19, Oct 22, and Nov 28. The final exam will be held on Dec 12 (5pm-7pm). *Makeup exams will **NOT** be given. The lowest exam grade may be replaced by the comprehensive final exam.*

Homework: Suggested homework assignments are given for each section. This list of problems will be the *minimum* necessary for a full understanding of that material. You are certainly invited to do more. Select problems will occasionally be collected for a grade.

Grades:	Exams	100 pts each	A	90% – 100%
	HWK	50 pts	B	80% – 89%
	Final Exam	<u>100 pts</u>	C	70% – 79%
		450 pts	D	60% – 69%
			F	below 60%

Notes:

- **Drop Date**-The last day to drop/withdraw is October 10, 2007. It is your personal responsibility to initiate and complete the drop/withdrawal process.
- **Attendance**-You should attend all classes; success in the course depends on this.
- **Extra Credit**-Occasionally, throughout the semester, extra-credit opportunities will arise.
- **Classroom Etiquette** – Free discussion, inquiry, and expression are encouraged in this class. Classroom behavior that interferes with either (a) the instructor's ability to

conduct the class or (b) the ability of students to benefit from the instruction is not acceptable. Examples of such behavior may include routinely entering the class late or departing early; use of beepers, cellular telephones, or other electronic devices; repeatedly talking in class without being recognized; talking while others are speaking; or arguing in a way that is perceived as “crossing the line of civility.” In the event of a situation in which a student legitimately needs to carry a beeper/cell phone to class, prior notice and approval of the instructor is required.

- **Academic Dishonesty** – All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials. For a complete listing of the university policy, see: <http://www.shsu.edu/administrative/faculty/sectionb.html#dishonesty>
- **Disability Issues**-It is the policy of Sam Houston State University that individuals otherwise qualified shall not be excluded, solely by reason of their disability, from participation in any academic program of the university. Further, they shall not be denied the benefits of these programs nor shall they be subjected to discrimination. Students with disabilities that might affect their academic performance are expected to visit with the Office of Services for Students with Disabilities located in the Counseling Center. If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Counseling Center and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: No accommodation can be made until you register with the Counseling Center. For a complete listing of the university policy, see: [http://www.shsu.edu/~vaf\\_www/aps/811006.pdf](http://www.shsu.edu/~vaf_www/aps/811006.pdf)
- **Student Absences On Religious Holy Days Policy** – Students are excused from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. For a complete listing of the university policy, see: [http://www.shsu.edu/~vaf\\_www/aps/documents/861001.pdf](http://www.shsu.edu/~vaf_www/aps/documents/861001.pdf)
- **Visitors In The Classroom** – Only registered students may attend class. Exceptions can be made on a case-by-case basis by the professor. In all cases, visitors must not present a disruption to the class by their attendance.

Homework Assignments  
(for Chapters 1 and 2 so far)

Section	Problems
1.2	1,2,6-8,10,12,14
1.3	1-6,8,9,12,13,15,17,19,20
1.4	1,2,4,5,7,8,10-12,15,17,18,20
1.5	1-7,9,11-14,16
1.6	4-7,9,10
2.1	1-3,5,9-11,14
2.2	1,2,4,5,10,11,14
2.3	1,3,4,7(a-c)
2.4	1,3-6,8,10,13,15
2.5	1-3,5,7,12,19,20,22
2.6	3,8,11,13,24