

Mathematical Statistics, MA 486-25 Spring 2001

Class meets Tuesdays and Thursdays 5:45pm-7:50pm in room 211 Bell

Instructor: Dr. Nikolai Chernov

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Office hours: Tuesdays, Thursdays, 4:30-5:30pm and by appointment.

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Text: Hogg & Tanis *The Probability and Statistical Inference*, Ed. 5 or 6.

(You can use either the 5th or the 6th edition of the book.)

Grading policy: (One of two schedules that yields a better grade for you)

Homework	10 %	or	0 %
Midterm I (April 12)	30 %		30 %
Midterm II (May 3)	30 %		30 %
Final (May 31, 6-9pm)	30 %		40 %

To 586 students: You are taking this course at a *graduate* level! You will be given extra, more difficult, assignments periodically. Unlike regular homework assignments, those extra ones are mandatory. The extra assignments will make 15% of your course grade, the rest will count for 85%.

Homework: Problems will be assigned weekly on Tuesdays, unless announced otherwise. HW will be due the next Tuesday after assignment. Corrected and graded HW will be returned on Thursday the same week. If you turn the HW in and the schedule #1 above gives you a better grade, it will be automatically applied. Otherwise, your HW scores will be dropped and the schedule #2 will be applied. One (lowest) HW score will be dropped in any case. Half credit is given for late homework.

Withdrawal Policy: Last day to withdraw from the course with a "W" is May 3.

All tests in this course are **open-book** and **open-notes**.
You may use a calculator, and you may actually need one.

Welcome to MA 486 and best of luck to you all.

Syllabus

	5th Ed.	6th Ed.	
1. Display of data	1.2+1.4	1.2+1.4	Mar 27
2. Point estimation	6.1	7.1	Mar 29
3. Confidence intervals for means	6.2+6.3	7.2+7.3	Apr 3
4. CI for variances and proportions	6.4+6.5	7.4+7.5	Apr 5
5. Sufficient statistics, Rao-Cramer	6.6+12.1+12.3	7.6+9.1+9.6	Apr 10
6. TEST - I (covers classes 1-5)			Apr 12
7. Tests of hypotheses on binomials	7.1	8.1	Apr 17
8. Power and sample size	7.2	9.2	Apr 19
9. Tests of hypotheses on normals	7.3	8.2	Apr 24
10. Tests on equality of two normals	7.4	8.3	Apr 26
11. Goodness-of-fit test.	7.5	8.4	May 1
12. TEST - II (covers classes 7-11)			May 3
13. Tests of equality of several means	8.1	8.6	May 8
14. Two factors, regression	8.2+1.6	8.7+1.6	May 10
15. Regression	8.3+8.4	7.8+7.9+8.8	May 15
16. Order statistics	10.1+10.2	5.6+7.7	May 17
17. Wilcoxon test	10.4	8.9	May 22
18. Two-sample tests, run tests	10.5+10.6	8.9+8.12	May 24
19. Kolmogorov-Smirnov test	10.7	8.10	May 29
FINAL EXAM (covers classes 13-19)			May 31

The syllabus is tentative, some changes are possible.

Homework assignments, some class materials and past exams, some with answers are available at

www.math.uab.edu/chernov/teach.html

(or just go to www.math.uab.edu, click on “people”, then “chernov”, then “teaching”). You will need an Acrobat Reader (it is free) to view/print the class material. Instructions are provided on my web page.