

**THE UNIVERSITY OF TEXAS AT DALLAS
MATHEMATICAL SCIENCES DIVISION
SPRING 2006 STAT 3360-502**

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| COURSE TITLE | PROBABILITY AND STATISTICS FOR MANAGEMENT AND ECONOMICS | STAT 3360-502 |
| ROOM & TIME | JO 3.516 | WEDNESDAY 7:00 – 9:45 PM |
| INSTRUCTOR | YULY KOSHEVNIK | |
| TA / OFFICE | XUAN CHEN, FO 1.612 | SCHEDULE WILL BE ANNOUNCED LATER |
| OFFICE HOURS | ECSN 3.916 | W 6:00 – 6:45 PM |
| PHONE / EMAIL: | 972-883-4178 (OFFICE) | <u>Yuly.Koshevnik@utdallas.edu</u> |

PREREQUISITE: MATH 1326

COURSE GOALS: INTRODUCTION TO **PROBABILITY THEORY** INCLUDING INDEPENDENCE, CONDITIONING, DENSITY FUNCTIONS, FREQUENTLY USED FAMILIES OF DISTRIBUTIONS, RANDOM VARIABLES, EXPECTATION, MOMENTS, AND THE CENTRAL LIMIT THEOREM;
ELEMENTS OF **STATISTICAL INFERENCE** INCLUDING SAMPLING, ESTIMATION, HYPOTHESIS TESTING, AND REGRESSION.

TEXTBOOK: **STATISTICS FOR MANAGEMENT AND ECONOMICS**,
BY KELLER AND WARRACK, ABBREVIATED 6TH EDITION
ISBN 0-534-39188-5

EVALUATION PROCEDURES

FOUR HOMEWORK ASSIGNMENTS, TWO MIDTERM TESTS AND FINAL EXAM

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|-----------------------------|----------------------------------|
| HOMEWORK ASSIGNMENTS | CONTRIBUTE ALTOGETHER 10% |
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| TWO MIDTERM TESTS | CONTRIBUTE 25% EACH |
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MISSED TESTS ARE GRADED AS ZEROS. NO MAKE-UP TEST. CHEATING IS NOT TOLERATED.

SHOW YOUR SOLUTIONS: NO GRADE WILL BE EARNED FOR PLAIN ANSWERS.

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| FINAL EXAM | CONTRIBUTES 40% |
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THE FINAL EXAM WILL BE COMPREHENSIVE AND OPEN BOOK

WITHDRAWAL POLICY

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| LAST DAY TO DROP A CLASS WITHOUT A “W” | WEDNESDAY, JANUARY 25 |
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| LAST DAY TO WITHDRAW WITH AN AUTOMATIC “W” | THURSDAY, FEBRUARY 16 |
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GRADING SCALE:

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|-----------|----------|----------|----------|----------|----------|----------|
| [97, 100] | [93, 97) | [90, 93) | [87, 90) | [83, 87) | [80, 83) | [77, 80) |
| A+ | A | A – | B+ | B | B – | C+ |
| [73, 77) | [70, 73) | [67,70) | [63,67) | [60, 63) | [0, 60) | |
| C | C – | D+ | D | D – | F | |

TENTATIVE COURSE OUTLINE

(SUBJECT TO CHANGE)

| WEEK | MONTH | DAYS | TOPICS AND SECTIONS | HOMEWORK ASSIGNMENT |
|------|----------|------|---|--------------------------------------|
| 1 | JANUARY | 11 | GRAPHICAL DESCRIPTION | CH. 1; SEC. 2.1 – 2.6 |
| 2 | | 18 | NUMERICAL SUMMARIES | SEC. 4.1 – 4.6 |
| 3 | | 25 | PROBABILITY MODELS | SEC. 6.1 – 6.5 |
| 4 | FEBRUARY | 1 | REVIEW (CH. 1 – 6) AND FIRST TEST | |
| 5 | | 8 | DISCRETE VARIABLES AND DISTRIBUTIONS | SEC. 7.1 – 7.3, 7.6 – 7.7 |
| 6 | | 15 | CONTINUOUS PROBABILITY MODELS | SEC. 8.1 – 8.3 |
| 7 | | 22 | SAMPLING DISTRIBUTIONS | SEC. 9.1 – 9.3 |
| 8 | MARCH | 1 | ESTIMATION | SEC. 10.1 – 10.4 |
| | | 8 | SPRING BREAK | |
| 9 | | 15 | HYPOTHESIS TESTING | SEC. 11.1 – 11.4 |
| 10 | | 22 | | |
| 11 | | 29 | REVIEW (CH. 7 – 11) / SECOND TEST | |
| 12 | APRIL | 5 | INFERENCES ABOUT A POPULATION | SEC. 12.2 – 12.4 |
| 13 | | 12 | COMPARING POPULATIONS | SEC. 13.2, 13.4, 13.5 – 13.6 |
| 14 | | 19 | SIMPLE LINEAR REGRESSION | SEC. 17.1 – 17.5, 17.7 – 17.8 |
| 15 | | 26 | FINAL EXAM | REGULAR CLASS TIME |

| HOMEWORK ASSIGNMENTS | |
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| HW 1 (15%) DUE 01/25 | CH. 2: EX. 2.3, 2.5, 2.15, 2.37, 2.57, 2.61 |
| HW 2 (25%) DUE 02/08 | CH. 4: EX. 4.9, 4.19, 4.27, 4.37, 4.39, 4.43, 4.45 CH. 6: EX. 6.41, 6.45, 6.47, 6.52, 6.53 |
| HW 3 (30%) DUE 03/15 | CH. 7: EX. 7.17, 7.23, 7.32, 7.84, 7.100, 7.114 CH. 8: EX. 8.14, 8.35, 8.37, 8.57; CH. 9: EX. 9.16, 9.41 |
| HW 4 (30%) DUE 04/19 | CH. 10: EX. 10.42, 10.61, 10.63; CH. 11: EX. 11.11, 11.44 CH. 12: EX. 12.24, 12.25, 12.47, 12.48, 12.87 CH. 13: EX. 13.18, 13.23, 13.24, 13.60, 13.101, 13.102, 13.103 |

| SPECIAL CLOSING DATES | |
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| MARTIN LUTHER KING'S DAY | JANUARY 16 |
| FIRST TEST | FEBRUARY 1 |
| SPRING BREAK | MARCH 6 TO 11 |
| SECOND TEST | MARCH 29 |
| FINAL EXAM | WEDNESDAY, APRIL 26, 7:00 – 9:45 PM |