

## Introduction to Statistics: Statistics 1211 Spring 2008

### Approximate Lecture Schedule

|            |   |                   |
|------------|---|-------------------|
| Lecture 1  | Introduction  | Devore 1.2-1.4    |
| Lecture 2  | Probability, conditional probability, independence          | Devore 2.1-2.5    |
| Lecture 3  | Random Variables, means/variances of random variables       | Devore 3.1-3.3    |
| Lecture 4  | Common probability distributions                            | Devore 3.4-3.6, 4 |
| Lecture 5  | Normal distribution calculations, approx. to binomial       | Devore 4          |
| Lecture 6  | LLN, joint distributions                                    | Devore 5.1-5.2    |
| Lecture 7  | Sample distribution of sample mean, CLT                     | Devore 5.3-5.4    |
| Lecture 8  | Point estimation  | Devore 6          |
| Lecture 9  | Point estimation (cont.)                                    | Devore 6          |
| Lecture 10 | Confidence intervals  | Devore 7          |
| Lecture 11 | Confidence intervals (cont.)                                |                   |
| Lecture 12 | Experimental design, sampling                               |                   |
| Lecture 13 | Experimental design, sampling (cont)                        |                   |
| Lecture 14 | Hypothesis testing, p-values                                | Devore 8          |
| Lecture 15 | Types of error, t-distribution tests                        | Devore 8          |
| Lecture 16 | Comparing means: paired sample and independent samples      | Devore 9.1-9.3    |
| Lecture 17 | Inference about proportions                                 | Devore 9.4-9.5    |
| Lecture 18 | Inference for variances                                     |                   |
| Lecture 19 | Analysis of Variance (ANOVA)                                | Devore 10         |
| Lecture 20 | ANOVA (cont.)   | Devore 10         |
| Lecture 21 | Chi-square test: contingency tables, goodness of fit        | Devore 14         |
| Lecture 22 | Data relationships, scatter plots, simple linear regression | Devore 12         |
| Lecture 23 | Simple linear regression: estimation and testing            | Devore 12         |
| Lecture 24 | Outliers, residuals, model checking                         | Devore 12         |
| Lecture 25 | Categorical relations, Simpson's paradox                    |                   |
| Lecture 26 | Multiple regression (time permitting)                       | Devore 13.4       |
| Lecture 27 | Multiple regression (cont)                                  | Devore 13.4       |
| Lecture 28 | Review  |                   |