

# Math575: Mathematical Statistics I

## Fall 2009

|                     |  |                 |                   |
|---------------------|--|-----------------|-------------------|
| <b>Time</b>         | MWF 11:00 - 11:50 am                     | <b>Location</b> | Hume 201          |
| <b>Instructor</b>   | Dr. Xin Dang                             | <b>Office</b>   | Hume 315          |
| <b>Phone</b>        | 662-915-7409                             | <b>Email</b>    | xdang@olemiss.edu |
| <b>Office hours</b> | MWF 8:30 - 10:00 am<br>or by appointment |                 |                   |

**Text:** *Introduction to Mathematical Statistics, 6th edition*  
by Hogg, Mckean and Craig

**Course outline:** 1. Probability and Univariate Distributions 2. Multivariate Distributions 3. Unbiasedness, consistency and Central Limit Theory 4. Confidence Intervals and Hypothesis Testing 5. Maximum Likelihood Methods

|                 |                        |      |         |      |
|-----------------|------------------------|------|---------|------|
| <b>Grading:</b> | Homework               | 35%  |         |      |
|                 | Take-home Midterm exam |      | 25%     |      |
|                 | Final exam             | 40%  |         |      |
|                 | 90%-100%               | = A, | 75%-90% | = B, |
|                 |                        |      | 60%-75% | = C, |
|                 |                        |      | < 60%   | = D  |

### And other things:

- The homework will be assigned weekly. The due date is one week later. No late homework please.
- Although you are allowed to collaborate while doing the homework, you have to show your own work in the exams. Therefore, a serious attempt to do all the problems and a thorough understanding of their solutions is strongly recommended.
- It is strongly suggested that the take-home midterm exam is completed within 2 and half hours, since the final will be similar and have to finish within the allotted time.
- The final will be comprehensive, covering various topics throughout the semester.
- Show all of your work both on homework and exams to receive full credit. A correct answer without supporting work is pretty much useless and you might be surprised how many points you can lose for “magically” obtaining the right answer from meaningless procedures. Sure the answer is important, but your technique and clear thought process is more important.
- I am here to help! Don't hesitate to ask questions in class, after class, at my office, or via email.