Spring 2024

# MATH 665-102: Statistical Inference

A. Wang

**Instructor: Prof. Wang**

**Textbook:** Statistical Inference, George Casella and Roger Berger, 2nd Edition

**Prerequisites:** Math 662 with a grade of C or better.

**Location and Time to Meet:** Lectures 06:00 pm-08:50 pm at Faculty Memorial Hall 309 every Tuesday from Jan,16,2024 to April,30,2024

**Grading Policy:** The final grade in this course will be determined as follows:

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| ▪ **Homework & Quizzes:** | **30%** |
| ▪ **Midterm Exam:** | **30%** |
| ▪ **Final Exam:** | **40%** |

Your final letter grade will be based on the following tentative curve.

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|---|---|---|---|
| **A** | **90-100** | **C** | **68-74** |
| **B+** | **85-89** | **D** | **50-67** |
| **B** | **80-84** | **F** | **0-49** |
| **C+** | **75-79** | | |

**Drop Date:** Please note that the University Drop Date **Jan 22,2024** deadline will be strictly enforced.

**Homework Policy:** Homework problems will be assigned in class.

**Attendance:** Attendance at all classes will be recorded and is **mandatory**. Please make sure you read and fully understand the Department's **Attendance Policy**. This policy will be **strictly** enforced.

**Makeup Exam Policy:** There will be **NO MAKE-UP EXAMS** during the semester. In the event the Final Exam is not taken, under rare circumstances where the student has a legitimate reason for missing the final exam, a makeup exam will be administered by the math department. In any case the student must notify the **Math Department Office and the Instructor** that the exam will be missed and present written verifiable proof of the reason for missing the exam, e.g., a doctors note, police report, court notice, etc., clearly stating the date AND time of the mitigating problem.

**Further Assistance:** For further questions, students should contact their Instructor. All Instructors have regular office hours during the week. These office hours are listed at the link above by clicking on the Instructor's name. Teaching Assistants are also available in the math learning center.

**Cellular Phones:** All cellular phones and beepers must be switched off during all class times.

## MATH DEPARTMENT CLASS POLICIES LINK

All DMS students must familiarize themselves with and adhere to the Department of Mathematical Sciences Course Policies, in addition to official university-wide policies. DMS takes these policies very seriously and enforces them strictly. For DMS Course Policies, please **click here**.

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| **Jan, 15, 2024** | M | Martin Luther King, Jr. Day |
| **Apr, 1, 2024** | M | **Last Day to Withdraw** from this course |
| **Mar, 10, 2024** | Sunday | Spring Recess, no classes |
| **Mar, 16, 2024** | Saturday | Spring Recess ends |
| **May, 1, 2024** | W | Reading Day |
| **May, 3-9, 2024** | F-Thurs | Final Exams |

# COURSE OUTLINE:

**Course Outline**

| Date | Lecture | Chapter | Topic | Assignment |
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| **Week 1** 01/16 | 1 | Chapter 5 | Properties of a random sample | |
| **Week 2** 01/23 | 2 | Chapter 5 | Properties of a random sample | |
| **Week 3** 01/30 | 3 | Chapter 6 | Principles of Data Reduction | |
| **Week 4** 02/06 | 4 | Chapter 6 | Principles of Data Reduction | |
| **Week 5** 02/13 | 5 | Chapter 7 | Point estimation | |
| **Weak 6** 02/20 | 6 | Chapter 7 | Point estimation | |
| **Week 7** 02/27 | 7 | Chapter 7 | Point estimation | |

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| **Week 8**<br>03/05 | 8 | Chapter 7 | Point Estimation & Midterm Review | |
| **Week 10**<br>**03/19** | 9 | | Midterm Exam | |
| **Week 11**<br>**03/26** | 10 | Chapter 8 | Hypothesis testing | |
| **Week 12**<br>04/02 | 11 | Chapter 8 | Hypothesis testing | |
| **Week 13**<br>04/09 | 12 | Chapter 9 | Interval estimation | |
| **Week 14**<br>04/16 | 13 | Chapter 9 | Interval estimation | |
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| **Week 15**<br>04/23 | 14 | Chapter 10 | Asymptotic Evaluations | |
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| **Week 16**<br>04/30 | 15 | | ↳ **REVIEW FOR FINAL EXAM** | |
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| **Finals** | | | | |