Stat 2630: Introduction to Mathematical Statistics Using R

Spring 2020

#### Instructor:

Joshua D. Naranjo

Office: 5507 Everett Tower (ph 387-4548) email (preferred): joshua.naranjo@wmich.edu

Class web page: http://www.stat.wmich.edu/naranjo/stat2630

Office Hours: MW 9:30-10:30, TR 9:30-11:30

# Course description:

We will learn about random variables and how to describe their distributions. We will show how random variables are used to represent uncertainty in data analysis, and how likelihood theory provides a system for parameter estimation and hypothesis testing. Topics include: probability distributions; random variables (normal, binomial, Poisson, chi-square, t, and F); hypothesis testing; confidence intervals; maximum likelihood methods.

**Textbook:** Introduction to Mahematical Statistics, Eight Ed. by Hogg, McKean and Craig.

### **Evaluation:**

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Homework (100 pts.)
Midterm (100 pts.)
Final Exam (100 pts.)
\left.\begin{array}{l} \text{Total} = 300 \text{ pts.} \end{array}\right\}
```

## Grading Procedure:

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(Total score)/3 = Final Ave.

[Final Ave. \geq 88.0] = A

[Final Ave. \geq 82.0] = BA

[Final Ave. \geq 75.0] = B

[Final Ave. \geq 70.0] = CB

[Final Ave. \geq 60.0] = C
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## Tentative Schedule:

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Feb. 25 (Tue): Midterm
April 21 (Tue, 2:45-4:45 pm): Final Exam
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**Attendance:** If you must miss class, consult one of your colleagues to find out what you missed. I will accept e-mailed homework, but not late homework. The two lowest homework scores will be dropped before calculating final average.

Make-up Exam Policy: Given only in special situations, generally illness. On a make-up test, you cannot do better than your other exam score. This ceiling is applied at the end of the semester.

**Tentative Coverage:** Chapters 1, 2, 3, 4, 6 (selected sections)

**Policy on Incompletes:** Department policy will be followed on incompletes.

### WMU Policy on Academic Dishonesty:

You are responsible for making yourself aware of and understanding the policies and procedures in the Graduate Catalog that pertain to Academic Honesty. These policies include cheating, fabrication, falsification and forgery, multiple submission, plagiarism, complicity and computer misuse. You should consult with me if you are uncertain about an issue of academic honesty prior to the submission of an assignment or test.