MATH-4803 ANALYSIS OF VARIANCE

<table>
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<tr>
<th>Instructor</th>
<th>Dr. Chulmin Kim (Boyd 326)</th>
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<tr>
<td>Phone &amp; Email</td>
<td>678-839-4142 <a href="mailto:ckim@westga.edu">ckim@westga.edu</a></td>
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<tr>
<td>Lecture</td>
<td>MW 5.30-6.45 pm (Boyd 303)</td>
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<td>Office hours</td>
<td>MW 4.00-5.00 pm (Boyd 205) 5.00-5.30 pm (Boyd 326)</td>
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Course Objectives

This course involves a thorough examination of the analysis of variance statistical method including hypotheses tests, interval estimation, and multiple comparison techniques of both single-factor and two-factor models. Extensive use of a statistical computer package, Minitab, will be a necessary part of the course.

Suggested Text (optional)

- **A**: Regression Analysis, 7th Ed., by William Mendenhall and Terry Sincich
- **B**: Applied Linear Statistical Models, 5th Ed., by Kutner, Nachtsheim, Neter and Li

Coverage, HW Assignments and Exams

- Week 1 (Aug 9) Regression Review I (A: Ch1)
- Week 2 (Aug 14 & Aug 16) Regression Review II (A: Ch3) & Minitab
- Week 3 (Aug 21 & Aug 23) Single Factor Studies I (B: Ch16)
- Week 4 (Aug 28 & Aug 30) Single Factor Studies II (B: Ch16)
- Week 5 (Sep 4) No class (Sep 6) Single Factor Studies III (B: Ch16)
- **Week 6 (Sep 11) HW1 (Sep 18) EX1 (Regression Review & Single Factor Studies)**
- Week 7 (Sep 18 & Sep 20) Analysis of Factor Level Means (B: Ch17)
- Week 8 (Sep 25 & Sep 27) ANOVA Diagnostics and Remedial Measures (B: Ch18)
- Week 9 (Oct 2 & Oct 4) Two Factor Studies I (B: Ch19)
- Week 10 (Oct 9 & Oct 11) Two Factor Studies II (B: Ch19)
- Week 11 (Oct 16 & Oct 18) Two Factor Studies III (B: Ch19)
- **Week 12 (Oct 23) HW2 (Oct 25) EX2 (Analysis of Factor Level Means, ANOVA Diagnostics and Remedial Measures Regression Review & Double Factor Studies)**
- Week 13 (Oct 30 & Nov 1) Randomized Complete Block Design (B: Ch21)
- Week 14 (Nov 6 & Nov 8) Random and Mixed Effects Model I (B: Ch25)
- Week 15 (Nov 13 & Nov 15) Random and Mixed Effects Model II (B: Ch25)
- Week 16 (Nov 20 & Nov 22) No class
- **Week 17 (Nov 27) HW3 (Nov 29) EX3 (Analysis of Factor Level Means, ANOVA Diagnostics and Remedial Measures Regression Review & Double Factor Studies)**
- **Week 18 (Dec 4) 5-7 pm Final (comprehensive)**

You can discuss HW however you have to use your own words. To fail this will result 0. Exams are open book with calculator. I expect you spend at least more than 5 hours per week.

Point allocation: HW 3x20=60, EX1=100, EX2=100, EX 3=100, F=140
You get an A if total>=450, B if total>=400, C if total>=350, D if total>=300. F, otherwise. And the deadline for the “W” is Sep 29.