

STAT S431/S631 APPLIED LINEAR MODELS II  
Spring 2015  
MWF 11:15AM - 12:05PM, TBD

Instructor: Arturo Valdivia, Ph.D.  
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Office: SH 206 (Statistics House 309 N Park Ave)  
**Office Hours and Location:** TBD  
or by appointment.  
Teaching Assistant: TBD  
**Office Hours TA:** TBD,  
or by appointment.

This syllabus could change. I will announce in class and via email if that happens.

**There is no required text for the class. Useful references for some of the material covered in class are:**

- Mixed Models: Theory and Applications with R, by Eugene Demidenko.
- Classical and Modern Regression with Applications, by Raymond Myers.
- Design and Analysis of Experiments, by Douglas Montgomery.
- Extending the Linear Models with R, by Julian J. Faraway.

**Prerequisite:** STAT S431/S631 or consent of instructor.

**Course Objectives:** Part II of a 2-semester sequence on linear models. Topics on design of experiments and general linear (mixed) model are covered.

**Basis for evaluation:**

Homework	30%
Quizzes / Group work	30%
Final Project	40%

**Grade distribution and cut-offs:**

$\geq 90.00$	A
80.00 - 89.99	B
70.00 - 79.99	C
60.00 - 69.99	D
$< 60.00$	F

These cut-offs may be lowered at the end of the semester. The instructor reserves the right to give +/- grades when considered appropriate.

## Course Description and Policies:

- **Homework Assignments**

- You will have homework assignments regularly during the semester.
- Homework is due at the beginning of the class. No late assignments will be accepted.

- **Quizzes and Group Work**

- Pop quizzes and group work will be given throughout the semester.
- Groups of 3 or 4 people are required for groupwork. You can choose your own group but if during the activity we see smaller or bigger groups, the TA and/or myself will rearrange students appropriately.

- **Project**

- A project will be required as a final evaluation.
- Details of the tentative calendar, presentations, and final report will be provided during the first day of classes.

- **Programming**

- We will use the programming language R for homeworks and the final project.
- The language can be downloaded for free from [//http://www.r-project.org](http://www.r-project.org)
- I will give tips and recommendation to use R occasionally. However, you are the main responsible to be able to program in R.

- **Email Policy**

- I reply to email within 24 to 48 hours. I only check email during weekdays, 9:00am to 5:00pm.
- I will not reply to email during the weekend.

## **Rights and Responsibilities:**

Rights and responsibilities for students are listed and explained in the IU Code of Student Rights, Responsibilities, and Conduct (<http://www.iu.edu/code/code/index.shtml>). Students have the responsibility to be informed of the policies and procedures within the community of Indiana University. Please review sections on academic misconduct, religious holidays, and code of ethics. If you have any concerns or questions, please contact the instructor.

Note: *Academic Misconduct*. Academic misconduct is defined as any activity that tends to undermine the academic integrity of the institution. The university may discipline a student for academic misconduct. Academic misconduct may involve human, hard-copy, or electronic resources (part II section G in the Code: Uphold and maintain academic and professional honesty and integrity). Further, the Code defines plagiarism as presenting someone else's work, including the work of other students, as one's own. Any ideas or materials taken from another source for either written or oral use must be fully acknowledged, unless the information is common knowledge. (part II section G in the Code).

Note: *Students with disabilities*. The Code states that it is the responsibility of students with documented physical or learning disabilities seeking accommodation to notify their course directors and the relevant campus office that deals with such cases in a timely manner concerning the need for such accommodation. (part I section G in the Code: Right to Accommodation for Individuals with Disabilities). If you have any concerns or questions, please contact the instructor.