

**Statistics: Continuous Methods (STAT 452/652) Spring 2013**  
**Davidson Mathematics and Sciences (DMS) 106**  
**TR 1:00-2:15PM**  
**3 credits**

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**Instructor:** Ilya Zaliapin **Office:** DMS 221

**Office hours:** TR 2:30–4:00PM + by appointment

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**Course web page:** [http://www.unr.edu/~zal/STAT652\\_Spring13.html](http://www.unr.edu/~zal/STAT652_Spring13.html)

**Course objectives and learning outcomes:** The use of probability models and statistical methods for data analysis is a common practice in virtually all science disciplines. In this course students will learn essential statistical concepts and methods and develop practical skills in exploratory data analysis, descriptive statistics, graphical representation of data, goodness-of-fit tests, correlation measures, simple and multiple linear regression, and analysis of variance. Working with a professional statistical package will provide the students an opportunity to apply the concepts discussed in class to the real data sets. After the class students will be able to perform standard statistical analysis for continuous data/models.

**Required textbook:** Navidi, William (2007) Statistics for Engineers and Scientists, 2nd ed., McGraw Hill. (**Additional material will be available from lecture notes.**)

**Home works** will be assigned weekly; they **are not graded** and intended for midterm preparation. You are encouraged to discuss HW assignments between each other and with instructor. However, the works must be written individually.

**Quizzes:** There will be occasional pop quizzes consisting of selected HW problems.

**Statistical Lab** is an integral part of the course. The class will meet in a computer lab on a regular basis (the dates will be announced in the class and on the course web site) to learn/discuss applied statistical techniques using the statistical package MINITAB. Take-home lab assignments will be given in each lab meeting; they will require an illustrated report with results of data analysis. You are encouraged to discuss the Lab assignments; however the analysis has to be done and reports have to be written individually and demonstrate that you are able to perform the analysis independently.

**Midterms:** There will be two midterms; tentative dates are Tuesday, February 25 and Thursday, April 4.

**Final exam:** a comprehensive final exam will be given on Tuesday, May 14, 5:00-7:00PM.

**Exam policy:** There will be no make-ups or early exams. If you miss one of the midterms for a legitimate reason, your final exam will count 20% more. In case of participating in University-related activities, contact instructor in advance.

**Final project (only for 652 students):** The project will consist of comprehensive theoretical and practical statistical analysis of a data set of your choice; it will result in a **project report** and a short **presentation** that will be delivered at the end of the semester to the class. A detailed discussion of how to successfully complete the final project will follow in class.

<b>Grading policy:</b>	<b>452</b>	<b>652</b>
Stat Lab	20%	15%
Quizzes	10%	10%
Midterms	40% (20% each)	40% (20% each)
Final exam	30%	20%
Final project	NA	15%

Letter	A	A-	B+	B	B-	C+	C	D+	D
Min. Score	93%	90%	87%	83%	80%	77%	70%	67%	60%

**Prerequisites:** MATH/STAT352 or STAT467.

**Graduate/Undergraduate levels:** It is assumed that graduate students will achieve deeper understanding of the material and will be offered sufficient opportunities for work at a higher academic level. This will be done by choosing different quality and quantity of assignments; in addition a data analysis project will be expected from graduate students.

**Academic dishonesty statement:** Any form of academic dishonesty will not be tolerated in this class. The minimum penalty for academic dishonesty is an **F** in the course. See Student Handbook and UNR Catalog for rules about and sanctions for academic dishonesty:  
[http://www.cis.unr.edu/ecatalog/Default.aspx?article\\_list\\_id=11076](http://www.cis.unr.edu/ecatalog/Default.aspx?article_list_id=11076)

**Disability statement:** The Department of Mathematics and Statistics supports providing equal access for students with disabilities. Any student needing accommodations for a specific disability is encouraged to meet with instructor or any Department representative at your earliest convenience to ensure timely and appropriate accommodations.

**Class recording policy:** Surreptitious or covert video-taping of class or unauthorized audio recording of class is prohibited by law and by Board of Regents policy. This class may be videotaped or audio recorded only with the written permission of the instructor. In order to accommodate students with disabilities, some students may have been given permission to record class lectures and discussions. Therefore, students should understand that their comments during class may be recorded.