

Syllabus

STAT 321: Introduction to Statistical Computing

(Fall 2009)

Instructor: Dr. Kendall Giles

Office: Harris 4133

Email: kegiles at vcu dot edu

Logistics: Day/Time: MW 2:00-3:15PM

Location: Harris 2127

Office Hours: MW 12:30-1:30PM and by appointment

Textbook: Peter Dalgaard, Introductory Statistics with R, Springer, 2002.

Prerequisites: STAT 212 and MATH 200, or equivalent.

Course Description:

The application of computers to statistical practice using SAS, R or similar statistical software. Topics include data storage and retrieval, data modification and file handling, statistical and graphical data analysis, and simulation.

Software:

We will be using the R statistical package, <http://www.r-project.org/>.

Assignments:

The primary means of learning the material in the course, as well as your evaluation, will take the form of a series of extended problem sets and a final comprehensive project. Makeup assignments may be given only with a university-approved excuse. All assignments should be submitted in hardcopy and typed (use appropriate text editor or word processor).

Grading:

| ACTIVITIES | PERCENTAGES |
|----------------|-------------|
| 8 Problem Sets | 72% |
| Final Project | 28% |

Student performance will be assessed using A-F letter grades.

The final project is meant to incorporate elements of the entire course. You may work in groups of up to three people, and it is up to you to define the topic and scope of the project.

- The first part of the project is a short proposal, about two pages long. In this proposal, you should state team members, topic of the project, and a rough sketch of how you will proceed.
- Types of projects include experiments with interesting algorithms and datasets, a more theoretical research paper on a particular topic, or an analysis and extension of an existing research paper or algorithm.
- The final project should be about 10-15 pages long, describing the problem, approach, results, and references.
- Each team will give a brief presentation of their project at the end of the semester.

More details will be forthcoming.

VCU Statement on Safety

What to know and do to be prepared for emergencies at VCU:

- Sign up to receive VCU text messaging alerts (www.vcu.edu/alert/notify). Keep your information up-to-date.
- Know the safe evacuation route from each of your classrooms. Emergency evacuation routes are posted in on-campus classrooms.
- Listen for and follow instructions from VCU or other designated authorities.
- Know where to go for additional emergency information (www.vcu.edu/alert).
- Know the emergency phone number for the VCU Police (828-1234). Report suspicious activities and objects.

VCU Honor System

Virginia Commonwealth University recognizes that honesty, truth, and integrity are values central to its mission as an institution of higher education. The Honor System is built on the idea that a persons honor is his/her most cherished attribute. A foundation of honor is essential to a community devoted to learning. Within this community, respect and harmony must coexist. The Honor System is the policy of VCU that defines the highest standards of conduct in academic affairs.

The Honor System states that faculty members are responsible for:

- Understanding the procedures whereby faculty handles suspected instances of academic dishonesty. Faculty are to report any infraction of the VCU Honor System according to the procedures outlined in our policy.
- Developing an instructional environment that reflects a commitment to maintaining and enforcing academic integrity. Faculty should discuss the VCU Honor System at the onset of each course and mention it in course syllabi.
- Handling every suspected or admitted instance of violation of the provisions of this policy in accordance with procedures set forth in the policy.

The Honor System in its entirety can be reviewed on the Web at http://www.provost.vcu.edu/pdfs/Honor_system_policy.pdf or it can be found in the 2009-10 VCU Insider at http://www.students.vcu.edu/docs/0910_vcu_insider.pdf .

The Honor System must be upheld and enforced by each member of the Virginia Commonwealth University community. The fundamental attributes of our community are honor and integrity. We are privileged to operate with this Honor System.

VCU Guidelines for Student Conduct

VCU faculty play a critical role in helping to build an environment that is conducive to the academic success of our students. As you know, VCU has policies and procedures designed to create an environment conducive to academic excellence. One of these policies and procedures can be found in a document entitled Guidelines for Faculty Members Regarding Student Conduct in the Instructional Settings. This document is available on the VCU Web at <http://www.provost.vcu.edu/pdfs/FacultyGuideToStudentConductInInstructionalSettings.pdf> or it can be found in the 2009-10 VCU Insider.

Understanding these guidelines will help you to encourage classroom behavior that does not detract from the quality of each students educational experience. Please read the document and think about your role in promoting a University culture based on mutual respect and civility.

As a reminder, both faculty and students should turn off cell phones and pagers while in the classroom.

Important Dates

Important dates for the Fall 2009 semester are available at: http://www.pubinfo.vcu.edu/calendar/ac_fullViewNew.asp?aYear=2009&aSemester=

Special Needs

Discuss with me any special needs, due to disability, sports team or other official campus activities, religion, or other physical, mental, or spiritual issue within the first two weeks of class. Please note VCU's policy of Non-discrimination on the basis of disability:

<http://www.vcu.edu/eeoaa/pdfs/discpolicy.pdf>

Final exam schedules: <http://www.enrollment.vcu.edu/rar/registration/exams.html>