

# CS5014: Research Methods in Computer Science

## Fall, 2005

**Class:** TuTh 12:30–1:45pm in Randolph 121  
**Instructor:** Dr. C.A. Shaffer, McBryde 331, x4354  
Office Hours: TBA  
E-Mail: shaffer@cs.vt.edu  
**Textbooks:** *The Art of Computer Systems Performance Analysis*  
by Raj Jain  
*Handbook of Writing for the Mathematical Sciences*  
by Nicholas J. Higham (<http://www.siam.org/books/ot63>)  
**Class Homepage:** <http://courses.cs.vt.edu/~cs5014>

**Special Note:** CS5014 may not be used to satisfy the course requirements for a coursework-only MS degree.

**Course Description:** This course interweaves three distinct themes. The first is aculturation into the research process in Computer Science. This includes an understanding of what CS researchers do, and the philosophy and ethics related to how they do it. The second is proficiency at communications, especially technical writing. The third is proficiency at designing experiments for the purpose of testing research hypotheses, and evaluating the results of those experiments.

**Assignments:** The course is graded out of a total of 1000 points. There will be an assignment of some sort roughly once per week. Some will be writing assignments, some will be problems related to the Jain book, and some will be artificial “writing debugging” assignments related to the Higham book. In general, no single assignment is worth more than 5-10% of the course grade, with the exception of the main semester writing project. This will be due near the end of the semester, and will be worth about 20% of your grade. More details will come later on this.

Assignments are typically due in class, via hard-copy. Late assignments are either penalized for being late, or not accepted at all, depending on the circumstance. Don’t push deadlines. My general policy is to give everyone one extension during the semester, without worrying too much about the reason. To get an extension, you must come to me to ask for it at least 24 hours before the assignment is due. Getting a second extension is **very hard** so don’t waste your opportunity.

If any student needs special accommodations because of a disability, please contact the instructor during the first week of classes.

**Honor Code:** The Graduate Honor Code, and in particular, the document “DEPARTMENTAL POLICY ON KOOFERS, OLD PROGRAMS, CHEATING, AND COMPUTER USE,” (URL <http://www.cs.vt.edu/academics/ugrad/koof.html>) applies to this course

and will be strictly enforced. Homework and exams **must** be done strictly on an individual basis. Design and coding of programming assignments **must** be done strictly on an individual basis.