This is an introductory course to quantitative analysis using fundamental concepts in statistics and scientific computation. Main topics covered include: probability, distributions and sampling, interpolation of functions, numerical integration, iterative methods for root-finding, system of linear equations, and Monte Carlo methods.

**Prerequisite.** In general, there is no prerequisite for this class. However, some knowledge in calculus and probability will be very helpful.

**Class Time and Location.** The class will meet T TH 9:30 AM - 11:00 AM @ RAS 213.

**Problem Session.** The problem sections will meet M: 2:00 - 3:00 PM, W 10:00 - 11:00 AM, W 1:00 - 2:00 PM @ RLM 7.122.

**Instructor.** Kui Ren  
Office: RLM 10.170  
Phone: 512-471-3152  
Email: ren@math.utexas.edu  
Office Hours: T TH 11:00AM-12:30PM + Appointments.

**Teaching Assistant.** Daniel Blazevski  
Office: RLM 12.132  
Phone: 512-475-8687  
Email: dblazevski@math.utexas.edu  
Office Hours: TBA.

**Homework, Class Project, and Exams.** There will be eleven homework sets, one each week. The lowest score from your homework will be dropped when calculating your final score. There will also be two in-class exams and a final exam.
Note that, in principle, no late homework will be accepted and no makeup exam will be arranged. Each of you will be assigned a small research project at the beginning of November. The project has to be completed by the end of the semester and will be counted toward your final grade.

**Grading Policy.** The final grade will be weighted roughly as follows:

Homework 20%, Project 20%, Exam I 15%, Exam II 15%, Final Exam 30%.

The letter grades are distributed as follows:

\[
\begin{align*}
90\% - 100\% &: \text{Grade A} \\
80\% - 89\% &: \text{Grade B} \\
70\% - 79\% &: \text{Grade C} \\
60\% - 69\% &: \text{Grade D} \\
0\% - 59\% &: \text{Grade F}
\end{align*}
\]

**Course Webpage.** All the homeworks will be posted on the university teaching tool, the blackboard system:

https://courses.utexas.edu/webapps/portal/frameset.jsp

**Textbooks.**

Numerical Computing with MATLAB (required)
Cleve Moler
Society for Industrial and Applied Mathematics

Elementary Statistics, 10th edition (recommended)
Mario Triola,
Addison-Wesley

**Miscellaneous.**

- The University of Austin provides upon request appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471-6259, 471-6441 TTY.

- It is the policy of The University of Texas at Austin that you must notify me at least fourteen days prior to the classes scheduled on dates you will be absent to observe a religious holy day.