

Syllabus STAT/MATH 463 (Fall 2016)

Applied Time Series Analysis

Instructor: Murali Haran, Professor, Department of Statistics, Penn State University, University Park, PA.

Office: 421D Thomas Building. Phone: 863-8126.

Office Hours: Mondays 4-5pm and Tuesdays 2:30-3:30pm

Teaching Assistant: Kyongwon Kim, PhD Student, Statistics

Office Hours Location: 320 Thomas Bldg (though his office is 333) email: kbk5206@psu.edu

Office Hours: Mondays 2:30-3:30pm and Tuesdays 5-6pm

Communication: You can reach me and the TA through email via Canvas.

Class Times: *Section 2:* MWF 9:05am-9:55am in Tyson Bld 111

Textbook: *Time Series Analysis with Applications in R* by Cryer and Chan, Springer (available for free PSU online); additional reference: *Time Series Analysis and its Applications* by Shumway and Stoffer.

Course Websites: <http://www.stat.psu.edu/~mharan/463/463.html>, schedule: <http://sites.stat.psu.edu/~mharan/463/schedule.2016Fall.html>, and Canvas website (please bookmark these).

Final Course Grades will be based on:

Weekly homework: 20%.

Two midterm exams: $25\% \times 2$.

Tentative midterm dates: Friday, Sep 30th and Friday, November 11th.

Final exam: 30%. (The in-class final will be comprehensive.)

Homework grading: Each homework counts for 40 points: 5 each for five selected problems (selected after submission) and 15 for an organized and easy-to-follow completed assignment, including *non-graded* problems. If there are no more than five problems in the assignment, all of them will be graded and points assigned appropriately. You will not receive full credit unless you show your work when solving each problem. You may discuss them with others but they must be written up independently.

Computing: To supplement your understanding of concepts, I will assign problems for you to do using the statistical software R which can be downloaded at no cost for any platform from <http://www.r-project.org/>.

Final Grades: Your final grade will be no lower than

A : 93-100%, A- : 90-92%

B+ : 87-89%, B : 83-86%, B- : 80-82%,

C+ : 77-79%, C : 70-76%

D : 60-69% , F : 0-59%

Course Rules:

1. No make-up exams will be given for ANY reason. If you miss an exam, you should provide a valid reason to the instructor; once the instructor AND the TA both approve your excuse, your missed exam score will be replaced by your score on the next mid-term exam.
2. Early exams might be allowed, with prior arrangement, for students with direct conflicts due to other required university activities (chess team, field trip, Blue Band trip, etc.) The director of that program must provide a letter requesting that you be excused.
3. Homework will typically be due on Wednesdays *in class*. You can submit it in my mailbox in Thomas 326 by 3:30pm on the same day it is due with a 20% reduction in your score. No late homework will be accepted after that time under any circumstance. *You have 1 week to appeal a grade. No grade changes will be made 1 week after a graded homework or exam is returned.* Your two lowest homework scores will be dropped when computing your final grade, which should allow for missing homework due to unavoidable circumstances.
4. Students are responsible for all announcements and supplements given within any lecture and email.
5. Academic Integrity and Mutual Respect: All Penn State University, College of Science, and Department of Statistics policies regarding ethics, honorable behavior, and mutual respect apply in this course.
 - Penn State's Policies <http://www.psu.edu/ufs/policies/>
 - College of Science's Academic Integrity Policy <http://science.psu.edu/current-students/Integrity/Policy.html>
 - College of Science's Code of Mutual Respect and Cooperation <http://science.psu.edu/climate/code-of-mutual-respect-and-cooperation>
6. If you have a disability-related need for reasonable academic adjustments in this course, contact the Student Disability Resources (SDR) at 814-863-1807 or visit their website <http://equity.psu.edu/student-disability-resources>