

STAT 480: Introduction to SAS

Summer 2017

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Office Hour: TBD

Course description

SAS (Statistical Analysis System) is a software suite developed by SAS Institute for statistical analytics. This course introduces students to basic knowledge in programming, data management, and exploratory data analysis using SAS software. Students are provided the opportunity to learn a comprehensive set of SAS data-related techniques through lessons, demonstrations and homework assignments. The material covered in STAT 480, in conjunction with the material covered in the sequel course STAT 481, is designed to prepare students for taking the SAS Version 9 Base Programming Certification Exams.

Course prerequisites

Although STAT 480 is designed for all students, students are expected to have knowledge at least at the elementary statistical level (e.g. STAT 200). Although the primary focus of this course is to learn how to use the SAS programming language to manage and manipulate data, the course also addresses the computation of some descriptive statistics.

Notes: Students who have not had prior experience with a computer programming language should expect to spend more time on this course than those who have had prior experience.

Course goals

The goals of the course are:

1. to introduce you to basic programming constructs, such as assignment statements and if / then / else statements
2. to learn how to program in the SAS software application
3. to provide you with an understanding of how the SAS application can be used effectively to manage, manipulate and analyze data
4. to learn a basic set of good programming practices

Required course material

There is no required textbook for this course. The slides I use in class will be the major source of materials. However, you may find that the following books would serve as a good reference in the future:

- Lora D. Delwiche and Susan J. Slaughter (2013), *The Little SAS Book*, Fifth Edition. Cary, NC: SAS Institute, Inc.

- SAS Institute Inc. (2006), SAS Certification Prep Guide: Base Programming for SAS 9. Cary, NC: SAS Institute, Inc.

Additionally, online material can be found at <http://support.sas.com>.

Grading

- **Homework (30%)**
No late homework will be accepted unless the student has prior permission from the instructor. Usually you need to submit an electronic .sas file on CANVAS.
- **In-class quizzes (10%)**
There are 3 or 4 quizzes administered in-class. Quizzes cannot be made up without a legitimate excuse.
- **Midterm exam (25%)**
It is a take-home exam. Midterm exam cannot be made up without a legitimate excuse. Tentative time is July 23th 9:00 AM – July 24th 11:59 PM.
- **Final exam (35%)**
It is a take-home exam. Final exam cannot be made up without a legitimate excuse. The final exam will not have a due date earlier than Fri Aug 11.

Academic integrity:

All Penn State and Eberly College of Science policies regarding academic integrity apply to this course. See <http://science.psu.edu/current-students/Integrity> for details.

ECOS Code of Mutual Respect and Cooperation:

Eberly College of Science Code of Mutual Respect and Cooperation embodies the values that we hope our faculty, staff, and students possess and will endorse to make The Eberly College of Science a place where every individual feels respected, valued, challenged and rewarded. http://www.science.psu.edu/climate/Code-of-Mutual-Respect_final.pdf

Disability services:

Penn State welcomes students with disabilities into the university's educational programs. If you have a disability-related need for reasonable academic adjustment in this course, contact the Office for Disability Services (located in 116 Boucke Building). Instructors should be notified as early in the semester as possible. You may refer to the Nondiscrimination Policy in the Student Guide to University Policies and Rules 1997. See the website <http://www.equity.psu.edu/ods/> for details.

Emergencies:

Campus emergencies, including weather delays, are announced on Penn State Live (<http://psutxt.psu.edu/>) and communicated to cellphones, email, the Penn State Facebook page, and Twitter via PSUTX