

Syllabus (Fall 2018-2019)

DA501 - Introduction to Data Analytics

Meeting Times

Saturday 13:00 - 16:00

Wednesday 19:00 - 22:00

Instructor

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Course Description, Aim and Content

This course teaches the fundamental ideas to clean, manipulate, process and analyze data. The students will work on data analysis problems arising in various data-intensive applications. The course involves many in-class coding exercises where the students are expected to work on several case studies. Through these exercises, the course shall also serve as an introduction to data analytics and modern scientific computing with Python programming language.



Schedule¹

1. Introduction to Python and Google Colab
 - a. Syntax, variables, operators
 - b. Input/output
 - c. Basic calculations
2. Decision Making
3. Sequences
 - a. String
 - b. List
 - c. Range
 - d. Matplotlib
4. Loops
 - a. For loops
 - b. While loops
 - c. Control Statements
5. User defined functions
6. Methods
7. Basic data structures
 - a. Dictionary
 - b. Set
8. File I/O
9. Numpy
10. Pandas

¹Instructor may change the contents and the order of the topics during the semester

Grading

- Assignments 50%
- Final 50% (Closed book, written exam)

GradeChecker Tool

We apply an automated grading process on the homeworks. You can use GradeChecker (<http://sky.sabanciuniv.edu:8080/GradeChecker/>) to check your expected grade. Just a reminder, you will see a character ¶ which refers to a newline in your expected output.

GradeChecker can be pretty busy and unresponsive during the last day of the submission. Due to this fact, leaving the homework for the last hour generally is not a good idea.

GradeChecker and Sample Runs together give a good estimate of how correct your implementation is, however we may test your programs with different test cases and your final grade may conflict with what you have seen on GradeChecker.

Submit your homework via SuCourse ONLY! GradeChecker is not considered as a submission. Paper, e-mail or any other methods are not acceptable, neither.

The internal clock of SUCourse might be a couple of minutes skewed, so make sure you do not leave the submission to the last minute. Do not forget that "No successful submission on SUCourse on time = A grade of 0 directly."

Announcements and SuCourse

Students are responsible for all announcements made during the regular class meetings. Students should check their Sabanci University e-mail accounts (mymail.sabanciuniv.edu) and follow the SuCourse site (<https://www.sabanciuniv.edu/sucourse/eng/>) for this class regularly as they are responsible for all announcements and postings delivered through these sources.

Important Note: This document may be modified during the semester (Fall 2018-2019) due to unforeseen reasons.