Academic Year 2021-2022
Syllabus
Big Data Analytics
CFU 6

Course Description

The course provides an introduction to data preparation, data analysis and report creation in SAS Visual Analytics.

Students will learn how to use this point-and-click SAS environment to easily access, transform and modify data so that it's ready for analysis, and also how to visually explore data to discover new insights.

This Data Visualization tool by SAS enable students to easily search for relationships, trends and patterns to gain a deeper understanding of their data. Then create stunning reports and dashboards that are shareable via the web and mobile devices.

In addition, students can enrich reports with powerful statistical models.

Teaching Method

Classroom teaching: a SAS expert will describe the main topics of the course and will answer students' questions.

E-learning: a collection of videos, demos, and practices, that summarize the concepts shown in classroom.

Case studies: in which students can practice with the supervision of the teacher.

Schedule of Topics

Topic 1	Introduction to SAS Viya and Visual Analytics interface.
Topic 2	Loading, investigating and preparing data with SAS Visual Analytics.
Topic 3	Data analysis with Visual Analytics (descriptive statistics, distributions, correlations, linear regression).
Topic 4	Designing interactive reports with Visual Analytics: prompts, actions, rules and ranks.

Documentation:

- SAS Visual Analytics 1 for SAS Viya: Basics – PDF
- E-learning - SAS Visual Analytics 1 for SAS Viya: Basics

Assessment:

- *Case Study evaluation.* This mid-term exam consists in a practice exercise in which group of students will test their SAS Visual Analytics knowledge by using the software.
  The case study will be provided to every group and it will require to solve different tasks related to the topics learned during the course; the results will be presented to a SAS expert to be assessed.
  The score obtained in this mid-term exam will be added to the final exam grade.

- *The final exam* consists of a written test containing open-ended and/or closed-ended questions, covering all the topics of the course.

Week	day	hours	Teaching
week1	*day1*	*4*	*Prof Borra*
week1	*day2*	*4*	*SAS*
week2	*day1*	*5*	*e-learn*
week2	*day2*	*3*	*SAS*
week3	*day1*	*4*	*SAS*
week3	*day2*	*4*	*e-learn*
week4	*day1*	*4*	*e-learn*
week4	*day2*	*4*	*e-learn*
week5	*day1*	*8*	*SAS Case Study*
week5	*day2*	*2*	*Prof Borra*
week6	*day1*		*(exam)*

Certification

Lectures and e-learning lessons can help students prepare for the certification exam **SAS Certified Specialist: Visual Business Analyst**. To complete the preparation, the student will have to dedicate time to carry out the elearning module: **SAS Visual Analytics 2 for SAS Viya: Advanced**, as well as to carry out further practical exercises. All certification details are described in: https://www.sas.com/sas/training/scyp.html