COURSE DETAIL

WEB-BASED DATA COLLECTION
Country Switzerland
Host Institution University of Geneva
Program(s) Global Studies, Geneva
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Business Administration
UCEAP Course Number 111
UCEAP Course Suffix
UCEAP Official Title WEB-BASED DATA COLLECTION
UCEAP Transcript Title WEB BASED DATA COLL
UCEAP Quarter Units 5.00
UCEAP Semester Units 3.30

Course Description
This course provides an introduction to data analytics using the R language. It also provides students with notions of data management, manipulation, and analysis as well as of reproducible research, result-sharing, and version control (using GitHub). At the end of the class, students are able to automatically extract data from websites and create interactive web apps as well as dynamic reports to visualize and analyze them. They are also able to construct their own R packages, make them available on GitHub and use literate programming to document them. Tentative list of topics that are discussed in this class are: Reproducible Research: knitr and rmarkdown; Version control: Github; Introduction to programming: Data structures, logical operators, control structures and functions; Visualizations: Exploratory data analysis with Base R and ggplot2; R packages: Construction of R-packages using devtools, roxygen2, pkgdown; Web Scraping: Automatic extraction of data from websites using rvest and quantmod; Web applications: interactive web apps using Shiny.

Language(s) of Instruction
English

Host Institution Course Number
S230012 CR

Host Institution Course Title
WEB-BASED DATA COLLECTION

Host Institution Course Details

Host Institution Campus
University of Geneva

Host Institution Faculty

Host Institution Degree

Host Institution Department
Faculté d'Economie et de Management

Course Last Reviewed

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