# COURSE DETAIL

| STATISTICAL COMPUTING AND PROGRAMMING |
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| **Country**<br>Singapore |
| **Host Institution**<br>National University of Singapore |
| **Program(s)**<br>National University of Singapore |
| **UCEAP Course Level**<br>Upper Division |
| **UCEAP Subject Area(s)**<br>Statistics Mathematics |
| **UCEAP Course Number**<br>137 |
| **UCEAP Course Suffix** |
| **UCEAP Official Title**<br>STATISTICAL COMPUTING AND PROGRAMMING |
| **UCEAP Transcript Title**<br>STATSTCL COMP&PROG |
| **UCEAP Quarter Units**<br>6.00 |
| **UCEAP Semester Units**<br>4.00 |

**Course Description**

This course introduces students to the statistical computing and programming, with the main focus on R, Python, and SAS. Students learn basic computing and programming concepts including scripting, variables, expressions, assignments, control structures, and data structures. On the statistical side, they will learn to load raw data, make numerical and graphical summaries of data, and conduct various estimation and testing procedures. Topics include descriptive statistics, statistical estimation, robust estimation, categorical data analysis, testing hypotheses, ANOVA, regression analysis, performing resampling methods and simulations. Some basic knowledge of R is assumed.

**Language(s) of Instruction**
English

**Host Institution Course Number**
ST2137

**Host Institution Course Title**
STATISTICAL COMPUTING AND PROGRAMMING

**Host Institution Course Details**

**Host Institution Campus**

**Host Institution Faculty**

**Host Institution Degree**

**Host Institution Department**
Statistics and Data Science

**Course Last Reviewed**
2022-2023

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