BA R CELONA
summer school
- OF DEMOGRAPHY -

Organized by the <u>Centre d'Estudis Demogràfics (CED)</u> at the <u>Universitat Autònoma de Barcelona (UAB)</u>

COURSE OUTLINE

The Barcelona Summer School of Demography (BSSD), based at the **Centre for Demographic Studies (CED)**, Universitat Autònoma de Barcelona, offers a six-week course in R. The course is divided into **six modules** - one per week - covering three major strengths of R: statistical and demographic analysis, data visualization, and spatial analysis. Each module consists of **20 hours** of teaching, combining theoretical lectures and practical exercises.

Participants are welcome to apply for the entire course or any of the individual modules. However, three itineraries are suggested: (1) The full course, Modules 1 to 6; (2) Statistics and demography, Modules 1 to 3; and (3) Data visualization and spatial analysis, Modules 1B and 4 to 6.

Modules 1 and **1B** offer an introduction to R for which no previous knowledge is required. Module 1B is meant for participants with no previous knowledge of R preferring to join the course at week 3. For the other modules, basic knowledge in R is required. **Module 2** focuses on basic statistical analysis. **Module 3** shows how to implement common demographic methods in R. **Module 4** provides a comprehensive view on data visualization using base R. **Module 5** introduces the 'tidyverse' approach in R programming, including the 'ggplot2' package. **Module 6** is devoted to spatial analysis and web-based mapping.

Participation will be limited to 15 students per module. Participants will be selected on a competitive basis based on motivation and research interests. Priority will be given to early-career researchers (Master and PhD students), but applicants from more advanced stages are also welcome. Participants are expected to bring and use their own laptops with R and RStudio installed as well as to pay their own transportation and living costs while staying in Barcelona. Lectures will be taught in English. Deadline for application: **31 March 2018**. Applicants will be informed about the results of selection process by mid April 2018.

For detailed contents on each module, schedule and organization, as well as to make an application please visit the **BSSD web page**.

For further information, please contact **bssd@ced.uab.es**.

CED *Centre d'Estudis Demogràfics*

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