SUMMER SCHOOL
Statistical tools for the management of human osteological data

OsteoData

10th – 14th October, 2022

Bologna (Italy)

ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

CONTENTS AND AIMS

Nowadays, statistical assessment of human osteological data is critical to address research questions in the field of biological and forensic anthropology, as well as in paleoanthropology. Great amount of osteological data needs to be processed with different approaches following statistical criteria, which are often unfamiliar to students at the beginning of their careers in anthropology. The summer school OsteoData will provide a theoretical basis to statistical methods in anthropology, and a full immersion of practical sessions. Particularly, students will be trained at collecting and registering osteological variables, managing and analyzing data in R and Past software, choosing the appropriate analysis for the research questions, interpreting the results. Real anthropological case studies will be presented, and participants will develop the statistical workflow to verify the research hypotheses.

PARTICIPANTS ADMITTED:
The number of participants is limited to 30.
It is open to MA and PHD students. Participants must cover their own travel and logging expenses. All lectures will be given in English in hybrid mode (live and remote).
To register, please fill the form and send it to
Teresa Nicolosi (teresa.nicolosi2@unibo.it)

PRE-REGISTRATION DEADLINE:
15th September, 2022.
REGISTRATION DEADLINE:
22nd September, 2022.

FEE: 350,00€

For information contact:
Teresa Nicolosi (teresa.nicolosi2@unibo.it)

PROGRAM OUTLINE
Day one – 10th October, 2022 (14.00-18.00)
- Introduction to human osteological data
- Study design and data collection
- Recording of osteological data

Day two – 11th October, 2022 (14.00-18.00)
- Introduction to common statistical software for analyzing osteological data
- Assessment of data type (qualitative vs. quantitative variables)
- Dataset creation
- Descriptive statistics in R, Excel and Past

Day three – 12th October, 2022 (14.00-18.00)
- Statistical hypothesis and test selection
- Sample size, normality and variance homogeneity
- Univariate statistics

Day four – 13th October, 2022 (14.00-18.00)
- Multivariate statistics:
  - Principal component analysis
  - Cluster analysis
  - Multidimensional scaling

Day five – 14h October, 2022 (14.00-18.00)
- Predictive models:
  - Logistic regression
  - Linear discriminant analysis
  - Tips and tricks with aperitivo

VENUE: Dept. of Biological, Geological and Environmental Sciences – BiGeA. Via Selmi 3, 40126 Bologna, Italy.

COORDINATOR:
Prof. Maria Giovanna Belcastro

LECTURES:
Dr. Teresa Nicolosi, Dr. Annalisa Pietrobelli, Dr. Rita Sorrentino.