



Discipline Information

The following dates are in (dd/mm/yyyy) format.

Code: RAL5887 - 1 Type: POS
Name: Advanced Resources for Results Analysis in Scientific Research
Concentration area: Ciências da Saúde Aplicadas ao Aparelho Locomotor (17142)

Approval dates:

CCP: 15/08/2017 CPG: 12/09/2017 CoPGr: 11/10/2017

Activation date: 11/10/2017 Inactivation date:

Workload:

Total: 60 h Theory: 1 h Practice: 2 h Study: 12 h

Credits: 4 Duration: 4 weeks

Professors: 140827 - Edgard Eduard Engel - 11/10/2017 until today

Objectives:

To train the student in the graduate level using advanced recuros Microsoft program - Excel to organize the data in tables, statistical analysis of the samples, comparison of sample groups, data analysis and preparation of graphs and tables.

Rationale:

Data analysis is a crucial stage of scientific work. The extraction of relevant information is a laborious task. Adition of variables and subjects increases complexity. The Microsoft Excel program is widely used in the scientific enviroment for this purpose. However, generally graduate-level students have limited and shallow knowledge about this resource. The mastery of advanced techniques and resources allows the organization, analysis and extraction of collected data to be carried out quickly and efficiently.

Content:

The course consists of four video classes available on the University of São Paulo E-Disciplines platform. Exercises and questions for training and evaluation will be available online too. There will be two meetings after blocks 2 and 4 in which the topics and exercises will be discussed.

Presentation of the blocks:

1- Global Organization of Tables:

Rows, columns, and cursor types,

Select cells,

Types of variables,

Text, percentage, numbers, decimal places, and rounding,

Color, grids, cell size, text tilt,

Copy and Paste Types, Insert,

Freeze panels,

Merge cells and center,

Sort, search, replace,

Drag and drop smart,

Conditional formatting and filters,

Spreadsheets,

Text in table,



Discipline Information

Fast calculation in status bar,
2- Exploring sample data:
Math operations,
Calculations, algorithms,
Mean, median, standard deviation, maximum, minimum, quartiles, confidence interval,
Age and time calculations,
Other column functions,
Line Functions,
Help and fx function,
Conditional formatting.
3- Separation and comparison of groups:
Separation and comparison of groups,
Separation of groups in the table,
Filters,
Pivot table construction,
Selection of variables,
Presentation of values (mean, count, sum, proportion),
Presentation of totals (row, column, general),
Patient Identification in a pivot table,
Selection of statistical tests,
Statistics (t test, ANOVA, correlation),
4- Tables and Graphs:
Graphics,
Tables,
ABNT table pattern,
Types of graphics,
Chart selection according to the variable,
Graphics editing, series correction, shape, text, scale, marker, line and trend,
Combined graphics,
Error Bar,
Box plot.

Bibliography:

Microsoft Office Excel 2007 em www.microsoft.com/brasil/2007office/programs/excel/highlights.msp
Microsoft Office Excel 2016 em
<https://support.office.com/pt-br/article/Treinamento-do-Excel-9bc05390-e94c-46af-a5b3-d7c22f6990bb?ui=pt-BR&rs=pt-BR&ad=BR>

Note:

EVALUATION CRITERIA:

The students' performance will be evaluated by direct questions and specific exercises of each block and by a conclusion work. Specific questions and exercises will weigh 1.5 and will be completed during the course period and the conclusion work will be weighted 4.0 and will be presented at the end of the course. The questions and exercises of the blocks subject to evaluation will be identified to differentiate them from the exercises to practice the topic under study.

Gerado em 10/03/2021 10:47:49