**STATISTICS I**

**Degrees in Economics and Management**

**2nd Semester – Academic year 2020-2021**

**MODULE DESCRIPTOR**

**Lecturers:** Carlos Oliveira (responsible) and Pierre Hoonhout

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**Office-Hours:** Please contact the lecturer.

**Module Aims**

The module Statistics I is designed to provide basic knowledge on Probability and will equip the students with the skills needed to successfully tackle many statistical problems in the fields of economics and management. Emphasis is placed on the notion of random variables as a way of describing phenomena influenced by chance as well as on the tools and techniques for interpreting the essential pattern implicit in them.

**Syllabus Plan**

1. Probability
2. Random variables
3. Expected values and other quantities
4. Multivariate random variables
5. Expected values of functions of multivariate random variables
6. Special random variables
7. Distribution of sums of independent random variables

**Indicative Learning Resources**

The main textbook for the module is:

Miller I. and Miller, M. (2013): John E. Freund's Mathematical Statistics with applications, 8th Edition, Pearson.

Alternative textbooks that you may wish to consult are:

Hogg, R.V. and Tanis, E.A. (2001): Probability and Statistical Inference, 6th Edition, Prentice - Hall,

Newbold, P.; Carlson, W. and Thorne, B. (2013): Statistics for Business and Economics, 8th Edition, Pearson.