

## Content

| Course Code | Course Name | Semester | Theory | Practice | Lab | Credit | ECTS |
|-------------|-------------|----------|--------|----------|-----|--------|------|
| G114        | Statistics  | 2        | 4      | 0        | 0   | 4      | 5    |

|                        |  |
|------------------------|--|
| Prerequisites          |  |
| Admission Requirements |  |

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Language of Instruction | French                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Course Type             | Compulsory                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Course Level            | Bachelor Degree                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Objective               | The objective of this course is to familiarize students with basic concepts and tools of statistical methodology                                                                                                                                                                                                                                                                                                                                                                          |
| Content                 | <ol style="list-style-type: none"><li>1. Statistics as a tool of decision</li><li>2. Statistical series, function of distribution and measures of central tendency</li><li>3. Measures of dispersion</li><li>4. Probability</li></ol>                                                                                                                                                                                                                                                     |
| References              | <p>Bernard Grais, "Statistique descriptive", 3eme edition, Dunod, Paris.</p> <p>Vincent Giard, "Statistiques Appliquées a la Gestion", Edition Economica, Paris.</p> <p>Paul Newbold, William L. Carlson, Betty Thorne, "Statistics for Business and Economics", 6th edition, Prentice Hall, Upper Saddle River, New Jersey, 2007</p> <p>Roger C. Pfaffenberger, James H. Patterson, "Statistical Methods for Business and Economics", Irwin 2003</p> <p>Business Communication Today</p> |

## Theory Topics

| Week | Weekly Contents                                                             |
|------|-----------------------------------------------------------------------------|
| 1    | Introduction to Statistics                                                  |
| 2    | Statistical series                                                          |
| 3    | Graphs to describe numerical variables                                      |
| 4    | Measures of central tendency                                                |
| 5    | Measures of variability                                                     |
| 6    | Probability and its postulates                                              |
| 7    | Probability Rules                                                           |
| 8    | Midterm exam                                                                |
| 9    | Bayes theorem                                                               |
| 10   | Random variables, mathematical expectation, variance and standard deviation |
| 11   | Hypergeometric distribution, Binomial distribution                          |
| 12   | The poisson probability distribution, the normal distribution               |
| 13   | Discrete random variables and probability distributions                     |
| 14   | Continuous random variables and probability distributions                   |