

Faculty of Biological, Agronomic and Environmental Engineering

BIR1304 Probability and statistics (II)

[22.5h+15h exercises] 3 credits

This course is taught in the 1st semester

Teacher(s): Patrick Bogaert
Language: French
Level: First cycle

Aims

Improvement of student's knowledge of random processes, principles and methodology of statistical analysis of experimental data.

Main themes

Introduction to statistics - Common methods for point estimation - Confidence interval for a mean and a variance - Hypothesis testing and inference - Linear models and regression.

Content and teaching methods

The course will complete the basic notions already presented during the courses BIR 1203 - Probability & Statistics (I). The student will be able to use the most classical estimation and inference methods for one or two means or variances, as well as for the most classical linear models. If there is enough time available, few exercises will be devoted to the use of a computer software in order to illustrate the various concepts. The Matlab software that will be used is the software used during the course BIR1202 - Applied computer sciences. A special attention will be paid to the articulation with the course BIR1201 - Integrated exercises in mathematics and computer sciences.

Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

Precursory courses: none

Supplemental courses:

BIR 1203 - Probability & Statistics (I)

Evaluation:

Open book written examination (only with the original material!). The examination is composed of exercises to be solved. Its duration is about 3 hours.

Support:

The supports of the course are a syllabus and a set of slides (see also the section Documents/Transparents on the iCampus website for an electronic copy of the slides if needed).

Framing: 1 teacher and 1 assistant

Other credits in programs

BIR13BA/A	Troisième année de bachelier en sciences de l'ingénieur, orientation bioingénieur (option : agronomie)	(3 credits)	Mandatory
BIR13BA/C	Troisième année de bachelier en sciences de l'ingénieur, orientation bioingénieur (option : chimie)	(3 credits)	Mandatory
BIR13BA/E	Troisième année de bachelier en sciences de l'ingénieur, orientation bioingénieur (option : environnement)	(3 credits)	Mandatory
SINF13BA	Troisième année d'études de bachelier en sciences informatiques	(3 credits)	Mandatory