Mathematics and Statistics B | ECU11022

Year	Junior Freshman
ECTS Credits	5
Contact Hours	22 hours of lectures and 10 hours of tutorials
Pre-Requisite	ECU11021
Semester	2
Module Leader and Lecturer	Ms. Vitaliia Yaremko
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Module Outline:

In this module we study how to summarize data in a consistent way and draw accurate conclusions that can be used in decision-making. The aim of the module is to guide students so that they:

- Understand basic statistical concepts;
- Apply statistics to a range of day-to-day problems;
- Translate real life questions into statistics questions;
- Calculate/compute statistics;
- Correctly interpret statistics;
- Understand the limitations of statics.

Statistics topics discussed during the Michaelmas term are:

- Graphical and numerical data description;
- Probability theory;
- Discrete and continuous random variables;
- Sampling;
- Confidence intervals;
- Hypothesis testing.

Module Learning Outcomes:

Having successfully completed this module, you will be able to:

- Explain and apply statistical terminology;

- Build and interpret summary statistics;

- Construct confidence intervals;

- Test hypothesis;

- Formulate day-to-day problems in statistical terms;

- Explaining statistical reasoning in clear, concise, and correct English.

Assessment:

- Pre-readings: 10% of the overall grade.

- Homework: 10% of the overall grade.

- Quizzes: 10% of the overall grade.

- Term test: 10% of the overall grade.

- Final exam: 60% of the overall grade.

Recommended Reading List:

Jaggia and Kelly Business Statistics: Communicating with Numbers McGraw Hill, 4th Edition.

The textbook comes with the McGraw Hill Connect online resource which will be used throughout the module for both continuous and summative assessments. The link to purchase the book and access the online platform will be provided before the first lecture. You will need to register with your TCD email address.