



FACULTY OF AGRICULTURAL, FOOD AND ENVIRONMENTAL SCIENCES – UNDERGRADUATE
DEGREE COURSE IN

- SUSTAINABLE AGRICULTURE FOR FOOD QUALITY AND THE ENVIRONMENT

INTRODUCTORY COURSES IN CHEMISTRY AND APPLIED STATISTICS AND PHYSICS

The Faculty of Agricultural, Food and Environmental Sciences invites 2017/18 first year students to the introductory courses in CHEMISTRY and APPLIED STATISTICS AND PHYSICS:

1. to integrate and to consolidate basic knowledge which is a prerequisite of the main courses
2. to complete knowledge of and revise those topics that are prerequisites for the main courses.

Introductory courses are provided by the University for the revision of basics needed to pass the entry test, understand the course lessons and tackle written exams. For this reason, attendance at the introductory courses is strongly recommended for all new students.

- **INTRODUCTORY COUSES: TIMETABLE**

The lessons will begin on **Monday 18th September 2017** in Room **26** as follows:

Day	Date	Time	Subject
Monday	18th September 2017	9.30-11.30	APPLIED STATISTICS AND PHYSICS
		11.30-13.30	CHEMISTRY
Tuesday	19th September 2017	9.30-11.30	APPLIED STATISTICS AND PHYSICS
		11.30-13.30	CHEMISTRY
Wednesday	20th September 2017	9.30-11.30	APPLIED STATISTICS AND PHYSICS
		11.30-13.30	CHEMISTRY
Thursday	21st September 2017	9.30-11.30	APPLIED STATISTICS AND PHYSICS
		11.30-13.30	CHEMISTRY
Friday	22nd September 2017	9.30-11.30	APPLIED STATISTICS AND PHYSICS
		11.30-13.30	CHEMISTRY



■ INTRODUCTORY COURSE OF CHEMISTRY

LECTURER

Dott.ssa Nicoleta Suciù

SYLLABUS

1. The atom and elements

The atom and its composition: electrons, neutrons and protons. Atomic number and mass number. Isotopes. The periodic table.

2. Inorganic compounds

The classification of substances. Pure substance and mixtures. Element symbols. Compounds. Writing a chemical formula. Atoms and molecules. Valence and oxidation states. List of oxidation states of the most common elements. Covalent and ionic compounds.

3. Inorganic chemical nomenclature

Traditional inorganic chemical nomenclature. Classification of inorganic substances. Binary and ternary compounds.

4. Organic chemical nomenclature

Classification of organic substances. Organic chemical nomenclature.

■ INTRODUCTORY COURSE OF APPLIED STATISTICS AND PHYSICS

LECTURER

Prof. Umberto Catellani

SYLLABUS

1. Equations and inequalities

1st, 2nd and higher degree equations

Integer, rational and irrational inequalities



2. Exponential and logarithmic functions

Power and its properties

Exponential and logarithmic functions: use and properties

3. Analytic geometry

Lines, parabolas and hyperbolas: definitions and basic properties

4. Trigonometry

Unit circle and angle measurements

Sine, cosine and tangent functions

Trigonometry

Sine and cosine rules

5. MEASUREMENTS and MATHS TOOLS FOR PHYSICS

Physical quantities and standard units (SI)

Scalars and vectors

Vector algebra

Frames of reference

Problem solving steps in physics