



University of Basilicata Studies

DEPARTMENT OF MATHEMATICS, INFORMATICS AND ECONOMICS

COURSE: Complementary Algebra

ACADEMIC YEAR: 2019-2020

TYPE OF EDUCATIONAL ACTIVITY: Characterizing

TEACHER: Domenico Senato

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Language: Italian

ECTS: (lessons e tutorials/practice)

n. of hours: (lessons e tutorials/practice)

Campus: Potenza/Matera
Dept./School:
Program:

Semester: second

EDUCATIONAL GOALS AND EXPECTED LEARNING OUTCOMES

The aim of the course is to deepen the study of group theory by providing students with advanced notions that traditionally have no place in a first course in abstract algebra. Examples and applications will be particularly taken care of.

PRE-REQUIREMENTS

A first course in abstract algebra

SYLLABUS

Group action on a set, definition and examples. Orbits. Applications of G-set to counting. Sylow theorems, examples and applications of the Sylow theory. Free Abelian Groups and the fundamental theorem. Free Groups, Homomorphisms of Free Groups. Group presentation, examples and applications. Solvable and Nilpotent Groups.

TEACHING METHODS

Lectures that also include a part of exercises performed and proposed. Seminar activities that directly involve students at individual and group level.

EVALUATION METHODS

Oral examination

TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL

ABSTRACT ALGEBRA, David S. Dummit, Richard M. Foote John Wiley & Sons, Inc.

INTERACTION WITH STUDENTS

Requests for appointment via email

EXAMINATION SESSIONS (FORECAST)¹

06/15/2020 - 07/06/2020 - 09/21/2020

SEMINARS BY EXTERNAL EXPERTS No

FURTHER INFORMATION

¹ Subject to possible changes: check the web site of the Teacher or the Department/School for updates.