MATH 512-ALGEBRA II-SPRING-2023-2024

SABANCI UNIVERSITY

Instructor: Nurdagül Anbar Meidl
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Office: FENS G047
Lectures: Tuesday: 14:40-17:30 in FENS L055
            Wednesday: 13:40-15:30 in FENS L030
Office Hours: By appointment

TEACHING METHOD
The lectures will be physical.

TEXTBOOK
We will not have a textbook. However, if you like, you can read the following book.

- Hungerford, Thomas W. Algebra. Reprint of the 1974 original. Graduate Texts in Mathematics, 73. Springer-Verlag, New York-Berlin, 1980. xxiii+502 pp. ISBN: 0-387-90518-9.
- Dummit, David S.; Foote, Richard M. Abstract algebra. Third edition. John Wiley \& Sons, Inc., Hoboken, NJ, 2004. xii+932 pp. ISBN: 0-471-43334-9.
- Lang, Serge Algebra. Revised third edition. Graduate Texts in Mathematics, 211. Springer-Verlag, New York, 2002. xvi+914 pp. ISBN: 0-387-95385-X

COURSE CONTENT AND LEARNING OUTCOME

- Basics of Module theory

- Field extensions, in particular finite algebraic extensions

- Normal, separable extensions, splitting fields

- The notion of extending field embeddings

- Galois extensions and Galois groups

- The fundamental theorem of Galois theory

- Cyclic and abelian extensions

- The fundamental theorem of Algebra (if time allows)

GRADING
2 Midterm: %30 each
1 Final: %40
Locations and times of the exams will be announced in fashionable time.

EXAM POLICY
There will be 2 Midterms and 1 Final during the semester. Midterms will be in the form of a written exam, in-person, and on campus. Midterm exams are closed book. This means that during the exam, the use of books, notes, electronic devices (including cell phones, smart watches, calculators, computers, etc.), or any other kind of supporting learning material is NOT allowed. A student violating this rule will receive 0 points for that exam. The final exam will be given as an oral examination.

MAKE-UP EXAMS
If a student misses an exam, then either s/he has to have a medical report by Sabancı Medline covering the exam date or contact the instructor immediately explaining your situation. Otherwise, it will be counted as "0".