

6. COURSES

The course structure allows great flexibility, and students can choose subjects from different fields according to their particular areas of interest and the topic of their thesis.

Basis courses

M. Kaštelan-Macan:	0.1. CHEMICAL ANALYSIS IN QUALITY SYSTEM
Š. Cerjan-Stefanović:	0.2. CHEMISTRY OF WATER
L. Sipos:	0.3. WATER TREATMENT PROCESS DESIGN
H. Ivanković:	0.4. INORGANIC NON-METALLIC MATERIALS
S. Kurajica:	0.5. HIGH-TEMPERATURE REACTIONS MECHANISMS
H. J. Mencer, M. Ivanković:	0.6. PHYSICO-CHEMICAL PRINCIPLES IN POLYMER SYSTEMS
Z. Veksli:	0.7. RELAXATION PROCESSES IN POLYMERS
G. Karminski-Zamola:	0.8. HETEROCYCLES IN BIOMOLECULES AND INDUSTRY
M. Šindler:	0.9. PRINCIPLES AND APPLICATION OF ORGANIC PHOTOCHEMISTRY
M. Mintas:	0.10. STRATEGY OF ORGANIC SYNTHESIS
V. Dananić:	0.11. SOLID STATE PHYSICS
K. Furić, M. Ivanda:	0.12. FUNDAMENTALS AND APPLICATIONS OF NANOSTRUCTURES
M. Milun:	0.13. CHEMICAL AND PHYSICAL PROPERTIES OF SURFACE AND NANOSTRUCTURE
S. Musić:	0.14. SPECTROSCOPIC METHODS IN THE INVESTIGATIONS OF MATERIALS
M. Metikoš-Huković:	0.15. PRINCIPLES AND PREVENTION OF CORROSION
S. Omanović:	0.16. ELECTROCHEMISTRY FOR NEW TECHNOLOGIES
V. Kovačević:	0.17. SURFACE ENGINEERING AND NANOSTRUCTURES
N. Koprivanac:	0.18. SYSTEMS OF ENVIRONMENTAL MANAGEMENT
I. Gusić:	0.19. MATHEMATICAL METHODS IN ENGINEERING CHEMISTRY
Ž. Kurtanjek:	0.20. MATHEMATICAL MODELING

Optional courses

1. group of courses: QUALITY OF ENVIRONMENT PROCESSES AND PRODUCTS

R. Budin:	1.1. ENERGY AND ENVIRONMENT LOAD
F. Briški:	1.2. BIOLOGICAL TREATMENT AND BIOREMEDIATION

K. Košutić:	1.3. PHYSICAL-CHEMICAL TREATMENT OF WATER
Š. Cerjan-Stefanović:	1.4. ION CHROMATOGRAPHY IN ENVIRONMENTAL ANALYSIS
M. Kaštelan-Macan:	1.5. CHEMICAL WASTE WATER TREATMENT
Z. Šoljić:	1.6. LIQUID CHROMATOGRAPHY
Z. Grabarić, B. Grabarić:	1.7. CHEMICAL SENSORS
I. Murković Steinberg, S. Milardović:	1.8. BIOSENSORS
S. Babić:	1.9. CHROMATOGRAPHIC METHODS IN ENVIRONMENTAL PROTECTION
A. Horvat:	1.10. MODERN METHODS FOR SAMPLE PREPARATION IN CHROMATOGRAPHY
S. Papić:	1.11. POLLUTION PREVENTION FOR CHEMICAL PROCESSES
V. Vađić:	1.12. CONTROL OF AIR QUALITY
B. Ćosović:	1.13. VOLTAMMETRIC METHODS OF ANALYSIS OF METALS AND ORGANIC MATTER IN THE ENVIRONMENT
N. Koprivanac:	1.14. WASTE MANAGEMENT OF CHEMICAL INDUSTRY
F. Plavšić:	1.15. PROVIDING OF CHEMICALS AND PREVENTING ACCIDENTS

2. group of courses: *ORGANIC SINTETIC PRODUCTS*

G. Karminski-Zamola:	2.1. CHEMISTRY OF NONNUCLEOSIDE ANTINEOPLASTICS
M. Šindler:	2.2. ORGANIC CHEMISTRY INTEGRAL APPROACH
P. Novak:	2.3. PRINCIPLES AND APPLICATION OF NMR SPECTROSCOPY
LJ. Duić:	2.4. PROCESSES OF ELECTROORGANIC SYNTHESIS
M. Mintas:	2.5. DESIGN AND BIOLOGICAL MECHANISM OF ACTION OF ORGANIC SYNTHETIC DRUGS
S. Raić-Malić:	2.6. STEREOCHEMISTRY AND DRUG ACTION
N. Blažević:	2.7. ISOLATION AND APPLICATION OF NATURAL ORGANIC COMPOUNDS
M. Dumić:	2.8. CHEMICAL DEVELOPMENT AND SCALE-UP IN DRUGS INDUSTRY

3. group of courses: *POLYMER MATERIALS*

Lj. Duić:	3.1. ELECTRICALLY CONDUCTIVE POLYMERS
B. Kunst:	3.2. CHEMISTRY AND TECHNOLOGY OF MEMBRANES
M. Ivanković:	3.3. COMPOSITE MATERIALS
V. Kovačević:	3.4. QUALITY OF ADHESION OF THIN FILMS AND COATINGS

V. Rek:	3.5. SELECTED CHAPTERS OF STRUCTURE AND PROPERTIES OF POLYMER MATERIALS
S. Lučić Blagojević:	3.6. COMPOSITE ADHESIVE MATERIALS AND PRODUCTS
F. Ranogajec:	3.7. APPLIED RADIATION CHEMISTRY
A. Jukić:	3.8. PETROCHEMISTRY
I. Šmit:	3.9. STRUCTURE OF POLIMERIC MATERIALS

4. group of courses: *INORGANIC NONMETALLIC MATERIALS:*

Š. Cerjan-Stefanović:	4.1. CHEMISTRY AND TECHNOLOGY OF NATURALE ZEOLITES
B. Subotić:	4.2. CHEMISTRY AND TECHNOLOGY OF ZEOLITES
H. Ivanković:	4.3. CERAMICS AND NEW CERAMIC PROCESSING
S. Kurajica, H. Ivanković:	4.4. SILICATE CHEMISTRY
G. Štefanić:	4.5. USE OF COMPUTER TECHNIQUES IN THE DIFFRACTION ANALYSIS OF THE MATERIALS
H. Ivanković, S. Kurajica:	4.6. STRUCTURE AND PROPERTIES OF INORGANIC GLASSES
J. Šipušić:	4.7. CEMENT
M. Metikoš-Huković:	4.8. SEMICONDUCTOR MATERIALS

5. group of courses: **CORROSION OF MATERIALS AND ALTERNATIVE ENERGY SOURCES**

S. Martinez: MODELING	5.1. MATERIALS CORROSION AND COMPUTER IN CORROSION
A. Meštrović-Markovinović:	5.2. CORROSION PROTECTION OF MATERIALS BY ELECTROPLATING
I. Milošev:	5.3 BIOMEDICAL IMPLANT MATERIALS
S. Omanović:	5.4. CHEMICAL APPROACH TO NANOTECHNOLOGY: FUNDAMENTALS AND APPLICATIONS
M. Ristić, M. Gotić:	5.5. NANOSTRUCTURED METAL OXIDES - SYNTHESIS AND APPLICATIONS
A. Drašner:	5.6. METAL HYDRIDES AND HYDROGEN ECONOMY
A. Jukić	5.7. FUEL CELLS
L. Sipos:	5.8. COMPUTERIZED EXPERIMENTS