

Bachelor's degree Studies in Chemistry from the academic year 2019/2020

L – Lecture, S – seminar, Lab – laboratory E – exam, C – credit,

| 1 Semester | | | | |
|---|-----------------|-----|------------|-----------|
| Courses | Type of classes | E/C | h/sem. | ECTS |
| Fundamentals of Chemistry | L | E | 60 | 5 |
| | S | | 45 | 4 |
| | Lab | | 90 | 6 |
| Safety in a chemical laboratory | L | C | 15 | 2 |
| | Lab | | 15 | 1 |
| Mathematical methods in chemistry | W | E | 15 | 2 |
| | S | | 15 | 3 |
| Foreign language | S | | 60 | 4 |
| Total | | | 315 | 27 |
| 2 Semester | | | | |
| Courses | Type of classes | E/C | h/sem. | ECTS |
| Analytical chemistry | L | E | 30 | 3 |
| | S | | 30 | 4 |
| | Lab | | 105 | 9 |
| Fundamentals of Computer Science | L | E | 15 | 3 |
| | Comp. Lab | | 30 | 4 |
| Facultative I-1 | L | | 15 | 3 |
| | Lab | | 30 | 3 |
| Foreign language | S | | 60 | 4 |
| Total | | | 315 | 33 |
| 3 Semester | | | | |
| Courses | Type of classes | E/C | h/sem. | ECTS |
| Inorganic Chemistry | L | | 30 | 2 |
| | S | | 15 | 2 |
| | Lab | | 60 | 4 |
| Organic chemistry | L | | 45 | 5 |
| | S | | 30 | 2 |
| | Lab | | 60 | 4 |
| Facultative I-2 | L | | 15 | 3 |
| | Lab | | 30 | 3 |
| Foreign language | S | E | 60 | 4 |
| Total | | | 345 | 29 |
| 4 Semester | | | | |
| Courses | Type of classes | E/C | h/sem. | ECTS |
| Inorganic Chemistry | L | E | 30 | 5 |
| | S | | 15 | 2 |
| | Lab | | 75 | 6 |
| Organic chemistry | L | E | 30 | 4 |
| | S | | 30 | 2 |
| | Lab | | 75 | 6 |
| Facultative I-3 | L | | 15 | 3 |
| | Lab | | 30 | 3 |
| Physical education | | C | 30 | |
| Total | | | 330 | 31 |

| 5 Semester | | | | |
|---|-----------------|-----|-----------------|-----------|
| Courses | Type of classes | E/C | h/sem. | ECTS |
| Physical Chemistry | L | E | 30 | 2 |
| | S | | 45 | 3 |
| | Lab | | 45 | 3 |
| Chemical Technology | L | E | 30 | 2 |
| | S | | 30 | 2 |
| | Lab | | 30 | 2 |
| Fundamentals of quantum chemistry | L | E | 30 | 2 |
| | S | | 30 | 2 |
| Facultative I-4 | L | | 15 | 3 |
| | S | | 30 | 3 |
| Physical education | | | 30 | |
| Total | | | 345 | 24 |
| 6 Semester | | | | |
| Courses | Type of classes | E/C | h/sem. | ECTS |
| Physical Chemistry | L | E | 30 | 2 |
| | S | | 45 | 3 |
| | Lab | | 45 | 3 |
| Advanced Analytical Methods | L | E | 30 | 2 |
| | Lab | | 45 | 3 |
| Facultative I-5 | L | | 30 | 3 |
| | Lab | | 15 | 2 |
| Facultative I-6 | L/S | | 30 | 3 |
| Facultative I-7 (Humanistic) | L | | 30 | 5 |
| Bachelor seminar/laboratory | | | 30/* | 5 |
| Bachelor degree exam | | | | 5 |
| Total | | | 300(330) | 36 |

*-unlimited number of hours

Optional courses

L – Lecture, S – seminar, Lab – laboratory

| 2 semester | | h/sem. | ECTS |
|--|-----|--------|------|
| Facultative I° – 1 one of two is chosen | | | |
| Chemical analysis of environment and materials | L | 15 | 3 |
| | Lab | 30 | 3 |
| Selected special techniques in chemical analysis | L | 15 | 3 |
| | Lab | 30 | 3 |

| 3 semester | | | |
|--|-----|----|---|
| Facultative I° – 2 one of two is chosen | | | |
| Structures and Applications of Inorganic Compounds | L | 45 | 6 |
| Green Chemistry | L | 15 | 3 |
| | Lab | 30 | 3 |

| 4 semester | | | |
|--|-----|----|---|
| Facultative I° – 3 one of two is chosen | | | |
| Elements of Organic Synthesis | Lab | 45 | 6 |
| Elements of Natural Products Chemistry | L | 15 | 3 |
| | Lab | 30 | 3 |

| 5 semester | | | |
|--|---|----|---|
| Facultative I° – 4 one of two is chosen | | | |
| Molecular driving forces | L | 15 | 3 |
| | S | 30 | 3 |
| Symmetry in chemistry | L | 15 | 3 |
| | S | 30 | 3 |

| 6 semester | | | |
|--|-----|----|---|
| Facultative I° – 5 one of two is chosen | | | |
| Molecular Physical Chemistry | L | 30 | 3 |
| | Lab | 15 | 2 |
| Electrochemistry | L | 30 | 3 |
| | Lab | 15 | 2 |

| | | | |
|---|---|----|---|
| Facultative I° – 6 one of two is chosen | | | |
| Molecular modeling of biologically relevant systems | L | 15 | 3 |
| | S | 15 | 3 |
| Molecular reactivity | L | 30 | 3 |

| | | | |
|--|---|----|---|
| Facultative I° – 7 one of two is chosen | | | |
| Civil society, democracy and its institutions | L | 30 | 5 |
| Communication, information and cognitive processes | L | 30 | 5 |