



**Plan studiów i punkty ECTS dla kierunku CHEMICAL TECHNOLOGY,
studia stacjonarne I stopnia
zatwierdzone 03.07.2018
obowiązujące od roku akademickiego 2018/2019**

| Semester 1 | Number of hours | ECTS points |
|--|-----------------|-------------|
| Mathematics (2C + 2Pc) E | 60 | 5 |
| Physics (3C + 1Pc) E | 60 | 5 |
| General and Inorganic Chemistry (3C + 2Pc) E | 75 | 7 |
| Engineering Graphics (2P) | 30 | 3 |
| Information Technology (1C + 1P) | 30 | 2 |
| Eligible Humanistic Subject (2C) | 30 | 3 |
| Foreign Language (4Pc) | 60 | 5 |
| Physical Education (1Pc) | 15 | 0 |
| Working safety (once) | 4 | 0 |
| Library services (e-learning) | 2 | 0 |

| Semester 2 | Number of hours | ECTS points |
|---------------------------------------|-----------------|-------------|
| Mathematics (2C + 2Pc) E | 60 | 5 |
| Physics (3Lc) | 45 | 3 |
| General and Inorganic Chemistry (4Lc) | 60 | 5 |

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|---|----|---|
| Analytical Chemistry (2C + 3Lc) E | 75 | 5 |
| Foreign Language (4Pc) E | 60 | 5 |
| <i>Eligible Humanistic Subject (one out of two)</i> | | 3 |
| <i>Marketing and Management (2C)</i> | 30 | 3 |
| <i>Management and Entrepreneurship (2C)</i> | 30 | 3 |
| <i>Eligible Subject I (two out of three)</i> | | 4 |
| <i>Information Technology (1P)</i> | 15 | 2 |
| <i>General and Inorganic Chemistry (1C)</i> | 15 | 2 |
| <i>Engineering Graphics (1P)</i> | 15 | 2 |
| Physical Education (2Pc) | 30 | 0 |

| Semester 3 | Number of hours | ECTS points |
|---|------------------------|--------------------|
| Organic Chemistry (2C + 2Pc) E | 60 | 5 |
| Organic Chemistry – Laboratory (2Lc) | 30 | 3 |
| Chemical and Process Thermodynamics (2C + 2Lc) E | 60 | 6 |
| Chemical and Process Thermodynamics (2Pc) | 30 | 2 |
| Instrumental Analysis (2C + 2Lc) E | 60 | 4 |
| Material Science and Theory of Machines (2C + 1P) E | 45 | 3 |
| <i>Eligible Subject in General and Inorganic Chemistry (one out of two)</i> | | 3 |
| <i>Practical Applications of Inorganic Compounds Reactions (2Lc)</i> | 30 | 3 |
| <i>Elements of Inorganic Preparation (2Lc)</i> | 30 | 3 |
| <i>Eligible Subject II (one out of two)</i> | | 2 |
| <i>Analytical Chemistry - Gravimetric Analysis (1Lc)</i> | 15 | 2 |
| <i>Analytical Chemistry - Titrants and Acid–base Standardization (1Lc)</i> | 15 | 2 |

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|---|----|---|
| <i>Eligible Subject III (one out of two)</i> | | 2 |
| <i>Instrumental Analysis with Elements of Preparation (1Lc)</i> | 15 | 2 |
| <i>Material Science and Theory of Machines (1P)</i> | 15 | 2 |

| Semester 4 | Number of hours | ECTS points |
|--|-----------------|-------------|
| Organic Chemistry (2C + 2Pc) E | 60 | 4 |
| <i>Organic Chemistry – eligible subject (one out of two)</i> | | 3 |
| <i>Oxygen-based Organic Compounds (2Lc)</i> | 30 | 3 |
| <i>Nitrogen-based Organic Compounds (2Lc)</i> | 30 | 3 |
| Physical Chemistry (2C + 2Pc + 2Lc) E | 90 | 5 |
| <i>Physical Chemistry – eligible subjects (one out of two)</i> | | 2 |
| <i>Chemical Knetics and Electrochemistry II (1Lc)</i> | 15 | 2 |
| <i>Influence of Electromagnetic Radiation on Matter (1Lc)</i> | 15 | 2 |
| Chemical Industry Equipment (2C + 2P) E | 60 | 5 |
| <i>Chemical Industry Equipment – eligible subject (one out of two)</i> | | 2 |
| <i>Design of Centrifugal Collector (1P)</i> | 15 | 2 |
| <i>Design of a Sedimentation Tank (1P)</i> | 15 | 2 |
| Chemometrics and Elements of Statistics (1C + 2Pc) | 45 | 4 |
| Solid State Chemistry (2C + 2Lc) E | 60 | 5 |

| Semester 5 | Number of hours | ECTS points |
|---|-----------------|-------------|
| Chemical Engineering (2C + 4Lc) E | 90 | 6 |
| Chemical Engineering (2P) | 30 | 2 |
| Fundamentals of Chemical Technology (2C + 2Lc) E | 60 | 5 |

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|---|----|---|
| Fundamentals of Chemical Technology (1Pc) | 15 | 1 |
| Inorganic Chemical Technology (2C + 2Lc) E | 60 | 5 |
| Inorganic Chemical Technology (1Pc) | 15 | 1 |
| Technology of Polymeric Materials (2C + 2Lc) E | 60 | 5 |
| Technology of Polymeric Materials (1Pc) | 15 | 1 |
| <i>Eligible Project IV (two out of three)</i> | | 4 |
| <i>Fundamentals of Chemical Technology (1P)</i> | 15 | 2 |
| <i>Inorganic Chemical Technology (1P)</i> | 15 | 2 |
| <i>Technology of Polymeric Materials (1P)</i> | 15 | 2 |

| Semester 6 | Number of hours | ECTS points |
|---|------------------------|--------------------|
| Fundamentals of Electrochemical Technology (2C + 2Lc) E | 60 | 5 |
| Elements of Electrical Engineering and Electronics (2C) | 30 | 2 |
| Organic Chemical Technology (2C + 1Pc + 2Lc) E | 75 | 6 |
| Methods of Organic Compounds Analysis (1C + 1Pc + 1Lc) | 45 | 4 |
| Elements of Automation and Measurements in Chemical Technology (1C + 1P) E | 30 | 2 |
| Technological Project (2P) | 30 | 2 |
| <i>Eligible Subject V (one out of two)</i> | | 2 |
| <i>Advanced Methods of Organic Compounds Analysis (1C + 1Lc)</i> | 30 | 2 |
| <i>Chemical Engineering (1C + 1Lc)</i> | 30 | 2 |
| <i>Eligible Subject VI (one out of three)</i> | | 1 |
| <i>Computer Aided Design (1P)</i> | 15 | 1 |
| <i>Organic Chemical Technology (1P)</i> | 15 | 1 |
| <i>Fundamentals of Electrochemical Technology (1Lc)</i> | 15 | 1 |
| <i>Eligible Lecture (one out of two)</i> | 15 | 1 |

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|---|----|---|
| <i>Microcontrollers for chemists (1C)</i> | 15 | 1 |
| <i>Imaging methods in chemistry (1C)</i> | 15 | 1 |
| Internship - 6 weeks | | 5 |
| Information Skills (once) | 2 | 0 |

| Semester 7 | Number of hours | ECTS points |
|---|-----------------|-------------|
| Technology of Special Purpose Materials and Nanomaterials (1C) | 15 | 2 |
| Exploitation and Process Safety (1C) | 15 | 2 |
| Methods of Technological Process Control (1C + 1Lc) | 30 | 3 |
| Eligible Subject (a total of 6 ECTS) | | 6 |
| <i>Fundamentals of Product Engineering and Quality Management (1C + 1P)</i> | 30 | 4 |
| <i>Technology of Special Purpose Materials and Nanomaterials (1C)</i> | 15 | 2 |
| <i>Exploitation and Process Safety (1C)</i> | 15 | 2 |
| <i>Methods of Technological Process Control (1C)</i> | 15 | 2 |
| <i>Protection of Intellectual Property, Safety and Work Ergonomics (1C)</i> | 15 | 2 |
| Eligible Lecture (one out of two) | | 2 |
| <i>Water Purification and Wastewater Treatment Technologies (1C)</i> | 15 | 2 |
| <i>Corrosion Prevention Technologies (1C)</i> | 15 | 2 |
| <i>Diploma Seminar (1P)</i> | 15 | 2 |
| Preparation and Submission of the Thesis | 120 | 13 |

C – Classes (Lecture)

Pc - practical classes

P – Project

Lc – Laboratory course

E - exam

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