

Nazwa kierunku studiów: Technologia chemiczna

1- Chemii i technologii polimerów, 2-Materiałoznawstwa produktów naftowych, 3-Ochrony i inżynierii środowiska, 4- Biotechnologii i technologii kosmetyków, produktów chemii gospodarczej i chemii przemysłowej, 5- Technologii skóry, 6-Innowacyjnych produktów i procesów, 7-Technologii leków, 8- Kosmetyków i produktów aptecznych

Poziom studiów: *II stopień*
 Poziom kwalifikacji (PRK): *7*
 Profil studiów: *ogólnoakademicki*
 Dyscypliny naukowe: *inżynieria chemiczna (wiodąca) 100%*
 Kod ISCED: *0711*
 Forma studiów: *niestacjonarne*
 Tytuł zawodowy nadawany absolwentom: *magister inżynier*

PLAN STUDIÓW został uchwalony przez Radę Wydziału w dniu 25.04.2019 r. (uchwała nr 16/2019/RW)
 zaopiniowany przez Wydziałową Radę Samorządu Studenckiego w dniu 25 kwietnia 2019 r.

| Lp. | Nazwa przedmiotu/zajęcia | Egzamin po sem. | Zaliczenie po sem. | GODZINY | | | | | | | | | | | | | ECTS | I rok | | | | | | II rok | | | | | | |
|---|--|-----------------|--------------------|---------------------------|---------------------------|-----------|-----------|-----------|-----------|----------|----------|----------|-------------|-----------|-----------|-----------|-----------|------------|-------------|-----------|-------------|-----------|-----------|-----------|-----------|-----------|----------|----------|-----------|----------|
| | | | | Razem zajęcia dydaktyczne | w tym | | | | | | | | | | I semestr | | | II semestr | | | III semestr | | | | | | | | | |
| | | | | | forma zajęć dydaktycznych | | | | | | | | | | ECTS | | | ECTS | | | ECTS | | | | | | | | | |
| | | | | | W | Ć | L | P | S | IGK* | ZBN* | W | Ć | L | P | S | | W | Ć | L | P | S | W | Ć | L | P | S | | | |
| A. Grupa zajęć podstawowych | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Aparatura procesowa | I | | 18 | 9 | | | 9 | | | | | 4,5 | 9 | | | 9 | 4,5 | | | | | | | | | | | | |
| 2 | Zjawiska powierzchniowe w procesach technologicznych | I | | 18 | 9 | | | 9 | | | | | 4 | 9 | | | 9 | 4 | | | | | | | | | | | | |
| 3 | Angielska terminologia techniczna | I | | 18 | 9 | | | 9 | | | | | 4 | 9 | | | 9 | 4 | | | | | | | | | | | | |
| 4 | Surowece przemysłowe | I | | 18 | 9 | | | 9 | | | | | 4 | 9 | | | 9 | 4 | | | | | | | | | | | | |
| 5 | Ochrona środowiska w działalności przemysłowej | II | | 36 | 9 | | 27 | | | | | | 4 | | | | | | | 9 | | 27 | | | 4 | | | | | |
| Razem grupa zajęć A | | | | 108 | 45 | 0 | 27 | 27 | 9 | 0 | 0 | 0 | 20,5 | 36 | 0 | 0 | 27 | 9 | 16,5 | 9 | 0 | 27 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| B. Grupa zajęć kierunkowych | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B₁ Grupa zajęć kierunkowych - obowiązkowych | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Analityka przemysłowa | I | | 27 | 9 | | 18 | | | | | | 3 | 9 | | 18 | | 3 | | | | | | | | | | | | |
| 7 | Technologie produkcji | I | | 18 | 9 | | | 9 | | | | | 2 | 9 | | | 9 | 2 | | | | | | | | | | | | |
| 8 | Bezpieczeństwo procesów produkcyjnych | I | | 18 | 9 | | | 9 | | | | | 2 | 9 | | | 9 | 2 | | | | | | | | | | | | |
| 9 | Zielone technologie | II | | 18 | 9 | | | 9 | | | | | 2 | | | | | | 9 | | | | | 9 | 2 | | | | | |
| 10 | Towaroznawstwo przemysłowe | I | | 18 | 9 | | | 9 | | | | | 2 | 9 | | | 9 | 2 | | | | | | | | | | | | |
| 11 | Inżynieria materiałowa | I | | 18 | 9 | | | 9 | | | | | 2 | 9 | | | 9 | 2 | | | | | | | | | | | | |
| Razem grupa zajęć B₁ | | | | 117 | 54 | 0 | 18 | 0 | 45 | 0 | 0 | 0 | 13 | 45 | 0 | 18 | 0 | 36 | 11 | 9 | 0 | 0 | 0 | 9 | 2 | 0 | 0 | 0 | 0 | 0 |
| C. Grupa zajęć wybieranych do wyboru (1 z 8) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C_{1A} Grupa zajęć wybieranych w zakresie: chemii i technologii polimerów - zajęcia obowiązkowe | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | Wykład monograficzny | | III | 18 | 18 | | | | | | | | 1 | | | | | | | | | | | | 18 | | | | 1 | |
| 13 | Chemia polimerów | II | | 63 | 27 | | 36 | | | | | | 7 | | | | | | 27 | | 36 | | | 7 | | | | | | |
| 14 | Fizykochemiczne metody badań polimerów | II | | 27 | | | 27 | | | | | | 2 | | | | | | | 27 | | | | 2 | | | | | | |
| 15 | Metody instrumentalne w analizie polimerów | II | | 27 | 9 | 18 | | | | | | | 4 | | | 9 | 18 | | | | | | | 4 | | | | | | |
| 16 | Reologia polimerów | | III | 18 | 18 | | | | | | | | 1 | | | | | | | | | | | | 18 | | | | 1 | |
| 17 | Techniki przetwórcze polimerów, maszyny i urządz. | II | | 45 | 9 | | | 36 | | | | | 6 | | | | | | 9 | | | 36 | | 6 | | | | | | |
| 18 | Projekt technologiczny | II | | 27 | | | 27 | | | | | | 2 | | | | | | | | | 27 | | 2 | | | | | | |
| Razem grupa zajęć C_{1A} | | | | 225 | 81 | 18 | 63 | 63 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 45 | 18 | 63 | 63 | 0 | 21 | 36 | 0 | 0 | 0 | 2 |
| C_{1B} Grupa zajęć wybieranych w zakresie: materiałoznawstwa produktów naftowych - zajęcia obowiązkowe | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | Wykład monograficzny | | III | 18 | 18 | | | | | | | | 1 | | | | | | | | | | | | 18 | | | | 1 | |
| 20 | Fizykochem. podstawy sterowania jakością pt.ekspl. | II | | 45 | 18 | | 27 | | | | | | 5 | | | | | | 18 | | 27 | | 5 | | | | | | | |
| 21 | Monitoring stanu uzdatnianie,odzysk i recykling płynów eksploatacyjnych. | II | | 45 | 9 | | 27 | | | | | | 5 | | | | | | 9 | | 27 | | 5 | | | | | | | |
| 22 | Prawn-organ. i ekonom.podstawy gospodarki pt.ekspl | III | | 27 | 9 | 9 | | 9 | | | | | 1 | | | | | | | | | | | 9 | 9 | | | 9 | 1 | |
| 23 | Systemy klasyfikacji pt.eksploat. w Polsce | II | | 27 | 9 | 9 | | 9 | | | | | 4 | | | | | | 9 | 9 | | | 4 | | | | | | | |
| 24 | Płyny eksploatacyjne na bazie surowców odnawialnych | II | | 36 | 18 | | 18 | | | | | | 5 | | | | | | 18 | | 18 | | 5 | | | | | | | |
| 25 | Pojekt technologiczny | II | | 27 | | | 27 | | | | | | 2 | | | | | | | | | 27 | | 2 | | | | | | |
| Razem grupa zajęć C_{1B} | | | | 225 | 81 | 18 | 72 | 27 | 27 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 54 | 9 | 72 | 27 | 18 | 21 | 27 | 9 | 0 | 0 | 9 |
| C_{1C} Grupa zajęć wybieranych w zakresie: ochrony i inżynierii środowiska - zajęcia obowiązkowe | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | Wykład monograficzny | | III | 18 | 18 | | | | | | | | 1 | | | | | | | | | | | | 18 | | | | 1 | |
| 27 | Chemia środowiska | II | | 63 | 18 | 9 | 36 | | | | | | 7 | | | | | | 18 | 9 | 36 | | 7 | | | | | | | |
| 28 | Inżynieria środowiska | III | | 72 | 18 | 9 | 27 | 18 | | | | | 7 | | | | | | 9 | 9 | 27 | | 6 | 9 | | | 18 | | 1 | |
| 29 | Zarządzanie środowiskowe | II | | 27 | 9 | 9 | | 9 | | | | | 4 | | | | | | 9 | 9 | | 9 | 4 | | | | | | | |
| 30 | Bezpieczeństwo chemiczne | II | | 18 | 9 | | | 9 | | | | | 2 | | | | | | 9 | | | | 2 | | | | | | | |
| 31 | Projekt technologiczny | II | | 27 | | | 27 | | | | | | 2 | | | | | | | | | 27 | | 2 | | | | | | |
| Razem grupa zajęć C_{1C} | | | | 225 | 72 | 27 | 63 | 63 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 45 | 27 | 63 | 45 | 0 | 21 | 27 | 0 | 0 | 18 | 0 |

| Lp. | Nazwa przedmiotu/zajęć | Egzamin po sem. | Zaliczenie po sem. | GODZINY | | | | | | | | ECTS | I rok | | | | | | | | | | II rok | | | | | | | | | | | | | | | |
|---|--|-----------------|--------------------|---------------------------|---------------------------|----------|------------|-----------|----------|----------|----------|----------|---------------------------|----------|----------|----------|----------|---------------------------|----------|----------|----------|----------|---------------------------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|----------|----------|
| | | | | Razem zajęcia dydaktyczne | w tym | | | | | | | | I semestr | | | | | II semestr | | | | | III semestr | | | | | | | | | | | | | | | |
| | | | | | forma zajęć dydaktycznych | | | | | | inne | | forma zajęć dydaktycznych | | | | | forma zajęć dydaktycznych | | | | | forma zajęć dydaktycznych | | | | | | | | | | | | | | | |
| | | | | | W | Ć | L | P | S | IGK* | ZBN* | | W | Ć | L | P | S | ECTS | W | Ć | L | P | S | ECTS | W | Ć | L | P | S | ECTS | | | | | | | | |
| C 1D. Grupa zajęć wybieranych w zakresie: biotechnologii i technologii kosmetyków, produktów chemii gospodarczej i chemii przemysłowej - zajęcia obowiązkowe | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 | Wykład monograficzny | | III | 18 | 18 | | | | | | | | 1 | | | | | | | | | | | | | | 18 | | | | 1 | | | | | | | |
| 33 | Surowce kosmetyczne | | II | 9 | 9 | | | | | | | | 2 | | | | | | | | | | | | | | 9 | | | | 2 | | | | | | | |
| 34 | Towaroznawstwo i metrologia jakości kosmetyków i prod.chem.gosp. | II | | 36 | 9 | | 27 | | | | | | 7 | | | | | | | | | | | | | | 9 | | 27 | | 7 | | | | | | | |
| 35 | Biotechnologia i techn. kosmetyków i prod. chem.gospod. i chem.przem. II | III | | 135 | 36 | 9 | 72 | 18 | | | | | 11 | | | | | | | | | | | | | 10 | 18 | | 27 | 18 | 1 | | | | | | | |
| 36 | Projekt technologiczny | | II | 27 | | | | | | | | | 2 | | | | | | | | | | | | | | | | 27 | | 2 | | | | | | | |
| Razem grupa zajęć C_{1D} | | | | 225 | 72 | 9 | 99 | 45 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 9 | 72 | 27 | 0 | 21 | 36 | 0 | 27 | 18 | 0 | 2 | |
| C 1E. Grupa zajęć wybieranych w zakresie: technologii skóry - zajęcia obowiązkowe | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 37 | Wykład monograficzny | | III | 18 | 18 | | | | | | | | 1 | | | | | | | | | | | | | | 18 | | | | 1 | | | | | | | |
| 38 | Technologia garbarstwa II | II,III | | 72 | 27 | | 45 | | | | | | 7 | | | | | | | | | | | | | | 18 | 27 | | 6 | 9 | 18 | | 1 | | | | |
| 39 | Chemia i histologia skóry | II | | 36 | 18 | | 18 | | | | | | 5 | | | | | | | | | | | | | | 18 | 18 | | 5 | | | | | | | | |
| 40 | Technologie proekologiczne w prod. skóry | II | | 54 | 9 | | 18 | 27 | | | | | 6 | | | | | | | | | | | | | | 9 | 18 | 27 | 6 | | | | | | | | |
| 41 | Materialoznawstwo garbarskie | | II | 18 | 9 | | 9 | | | | | | 2 | | | | | | | | | | | | | | 9 | 9 | | 2 | | | | | | | | |
| 42 | Projekt technologiczny | | II | 27 | | | | 27 | | | | | 2 | | | | | | | | | | | | | | | | | 27 | | 2 | | | | | | |
| Razem grupa zajęć C_{1E} | | | | 225 | 81 | 0 | 90 | 54 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 54 | 0 | 72 | 54 | 0 | 21 | 27 | 0 | 18 | 0 | 0 | 2 | |
| C 1F. Grupa zajęć wybieranych w zakresie: innowacyjnych produktów i procesów - zajęcia obowiązkowe | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 43 | Wykład monograficzny | | III | 18 | 18 | | | | | | | | 1 | | | | | | | | | | | | | | | 18 | | | | 1 | | | | | | |
| 44 | Procesy membranowe | II | | 36 | 9 | | 18 | 9 | | | | | 5 | | | | | | | | | | | | | | | 9 | 18 | 9 | 5 | | | | | | | |
| 45 | Polimery naturalne | | III | 36 | 9 | | 27 | | | | | | 1 | | | | | | | | | | | | | | | | 9 | | 27 | | | | | 1 | | |
| 46 | Profesjonalne kosmetyki i produkty chemii gospodarczej | II | | 36 | 9 | | 27 | | | | | | 5 | | | | | | | | | | | | | | | 9 | 27 | | 5 | | | | | | | |
| 47 | Nanokompozyty | | II | 36 | 9 | | 27 | | | | | | 4 | | | | | | | | | | | | | | | 9 | 27 | | 4 | | | | | | | |
| 48 | Biomateriały polimerowe | II | | 36 | 9 | | 27 | | | | | | 5 | | | | | | | | | | | | | | | 9 | 27 | | 5 | | | | | | | |
| 49 | Projekt technologiczny | | II | 27 | | | | 27 | | | | | 2 | | | | | | | | | | | | | | | | | 27 | | 2 | | | | | | |
| Razem grupa zajęć C_{1F} | | | | 225 | 63 | 0 | 126 | 36 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 0 | 99 | 36 | 0 | 21 | 27 | 0 | 27 | 0 | 0 | 2 |
| C 1G. Grupa zajęć wybieranych w zakresie: technologii leków - zajęcia obowiązkowe | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 50 | Wykład monograficzny | | III | 18 | 18 | | | | | | | | 1 | | | | | | | | | | | | | | | 18 | | | | 1 | | | | | | |
| 51 | Farmakokinetyka i farmakodynamika | | II | 18 | 9 | | 9 | | | | | | 2 | | | | | | | | | | | | | | | 9 | 9 | | 2 | | | | | | | |
| 52 | Analiza leków | | II | 27 | 9 | | 18 | | | | | | 4 | | | | | | | | | | | | | | | 9 | 18 | | 4 | | | | | | | |
| 53 | Biofizyka | | II | 9 | 9 | | | | | | | | 2 | | | | | | | | | | | | | | | 9 | | | 2 | | | | | | | |
| 54 | Synteza leków | II | | 72 | 18 | | 54 | | | | | | 9 | | | | | | | | | | | | | | | 18 | 54 | | 9 | | | | | | | |
| 54 | Farmacja przemysłowa | | II | 27 | 18 | | 9 | | | | | | 3 | | | | | | | | | | | | | | | 18 | | 9 | 3 | | | | | | | |
| 55 | Mikrobiologia farmaceutyczna | III | | 27 | 9 | | 18 | | | | | | 1 | | | | | | | | | | | | | | | | | | 9 | 18 | | | | 1 | | |
| 56 | Projekt technologiczny | | II | 27 | | | | 27 | | | | | 1 | | | | | | | | | | | | | | | | | 27 | | 1 | | | | | | |
| Razem grupa zajęć C_{1G} | | | | 225 | 90 | 9 | 90 | 36 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 63 | 9 | 72 | 36 | 0 | 21 | 27 | 0 | 18 | 0 | 0 | 2 |
| C 1H. Grupa zajęć wybieranych w zakresie: kosmetyków i produktów aptecznych - zajęcia obowiązkowe | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 57 | Wykład monograficzny | | III | 18 | 18 | | | | | | | | 1 | | | | | | | | | | | | | | | 18 | | | | 1 | | | | | | |
| 58 | Farmacja stosowana | | II | 18 | 18 | | | | | | | | 2 | | | | | | | | | | | | | | | 18 | | | 2 | | | | | | | |
| 59 | Biologiczne i fizykochemiczne mechanizmy działania kosmetyków | | II | 18 | 18 | | | | | | | | 2 | | | | | | | | | | | | | | | 18 | | | 2 | | | | | | | |
| 60 | Bezpieczeństwo stosowania kosmetyków | | II | 9 | 9 | | | | | | | | 2 | | | | | | | | | | | | | | | 9 | | | 2 | | | | | | | |
| 61 | Projektowanie i wytwarzanie kosmetyków | II | | 63 | 18 | | 36 | 9 | | | | | 9 | | | | | | | | | | | | | | | 18 | 36 | 9 | 9 | | | | | | | |
| 62 | Materialoznawstwo wyrobów medycznych | | II | 36 | 9 | | 27 | | | | | | 5 | | | | | | | | | | | | | | | 9 | 27 | | 5 | | | | | | | |
| 63 | Ocena jakości kosmetyków | III | | 36 | 9 | | 27 | | | | | | 1 | | | | | | | | | | | | | | | | | | 9 | 27 | | | | 1 | | |
| 64 | Projekt technologiczny | | II | 27 | | | | 27 | | | | | 1 | | | | | | | | | | | | | | | | | 27 | | 1 | | | | | | |
| Razem grupa zajęć C_{1H} | | | | 225 | 99 | 0 | 90 | 36 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 72 | 0 | 63 | 36 | 0 | 21 | 27 | 0 | 27 | 0 | 0 | 2 |

