# Program studiów I stopnia na kierunku INŻYNIERIA CHEMICZNA I PROCESOWA, obowiązujący od roku akademickiego 2025/2026

**Politechnika Warszawska, Wydział Inżynierii Chemicznej i Procesowej**

| Kod przedmiotu | Przedmiot | 1 ROK | | | | | | | | | | | | 2 ROK | | | | | | | | | | | | 3 ROK | | | | | | | | | | | | 4 ROK | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Semestr I | | | | | | Semestr II | | | | | | Semestr III | | | | | | Semestr IV | | | | | | Semestr V | | | | | | Semestr VI | | | | | | Semestr VII | | | | | |
| | | Liczba godzin | | | | ECTS | E/Z | Liczba godzin | | | | ECTS | E/Z | Liczba godzin | | | | ECTS | E/Z | Liczba godzin | | | | ECTS | E/Z | Liczba godzin | | | | ECTS | E/Z | Liczba godzin | | | | ECTS | E/Z | Liczba godzin | | | | ECTS | E/Z |
| | | W | C | P | L | | | W | C | P | L | | | W | C | P | L | | | W | C | P | L | | | W | C | P | L | | | W | C | P | L | | | W | C | P | L | | |
| 1070-IC000-ISP-101 | Matematyka 1 | 60 | 60 | | | 8 | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-102 | Fizyka 1 | 30 | 15 | | | 4 | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-104 | Grafika inżynierska | 15 | | | 30 | 4 | Z | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-107 | Podstawy obliczeń inżynierskich 1 | 15 | 15 | | 30 | 5 | Z | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-111 | Wstęp do inżynierii chemicznej | 30 | | | | 3 | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-112 | Chemia ogólna | 30 | 30 | | | 4 | Z | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-H101 | Prawo gospodarcze | | 15 | | | 1 | Z | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-H103 | Podstawy zarządzania projektami | | 15 | | | 1 | Z | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-WF1 | Wychowanie fizyczne 1 | | 30 | | | 0 | Z | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-203 | Fizyka 2 | | | | | | | 30 | 15 | | 30 | 5 | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-205 | Matematyka 2 | | | | | | | 45 | 45 | | | 6 | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-208 | Podstawy obliczeń inżynierskich 2 | | | | | | | 30 | | 30 | 15 | 6 | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-212 | Laboratorium chemii ogólnej | | | | | | | | | | 45 | 3 | Z | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-213 | Podstawy elektrotechniki i automatyki | | | | | | | 15 | | | 15 | 3 | Z | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-JO1 | Język obcy 1 | | | | | | | | 60 | | | 4 | Z | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-H209 | Prawo własności intelektualnej | | | | | | | | 15 | | | 1 | Z | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-Hx | Przedmiot HES | | | | | | | | 30 | | | 2 | Z | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-WF2 | Wychowanie fizyczne 2 | | | | | | | | 30 | | | 0 | Z | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-310 | Podstawy mechaniki płynów | | | | | | | | | | | | | 30 | | 30 | | 4 | E | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-311 | Chemia analityczna | | | | | | | | | | | | | 15 | | | 30 | 3 | Z | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-312 | Chemia fizyczna | | | | | | | | | | | | | 45 | 45 | | | 6 | E | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-313 | Chemia organiczna | | | | | | | | | | | | | 30 | | | | 2 | Z | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-314 | Metody matematyczne w inżynierii chemicznej | | | | | | | | | | | | | 30 | 30 | | | 4 | E | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-315 | Metody numeryczne | | | | | | | | | | | | | 15 | | | 30 | 3 | Z | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-316 | Technologie przemysłowe | | | | | | | | | | | | | 30 | | | | 2 | Z | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-317 | Zrównoważony rozwój | | | | | | | | | | | | | 30 | | | | 2 | Z | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-JO2 | Język obcy 2 | | | | | | | | | | | | | | 60 | | | 4 | Z | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-WF3 | Wychowanie fizyczne 3 | | | | | | | | | | | | | | 30 | | | 0 | Z | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-404 | Wymiana ciepła | | | | | | | | | | | | | | | | | | | 30 | | 30 | | 5 | E | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-406 | Termodynamika procesowa | | | | | | | | | | | | | | | | | | | 45 | | 30 | | 5 | E | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-409 | Laboratorium chemii fizycznej | | | | | | | | | | | | | | | | | | | | | | 45 | 3 | Z | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-410 | Laboratorium chemii organicznej | | | | | | | | | | | | | | | | | | | | | | 45 | 3 | Z | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-416 | Podstawy biotechnologii | | | | | | | | | | | | | | | | | | | 30 | | | | 2 | Z | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-JO3 | Język obcy 3 | | | | | | | | | | | | | | | | | | | | 60 | | | 4 | Z | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-OBx | Przedmioty obieralne | | | | | | | | | | | | | | | | | | | | 120 | | | 8 | Z | | | | | | | | | | | | | | | | | | | | |
| 1070-IC000-ISP-509 | Kinetyka procesowa | | | | | | | | | | | | | | | | | | | | | | | | | 30 | | 30 | | 5 | E | | | | | | | | | | | | | | |
| 1070-IC000-ISP-511 | Procesy podstawowe i aparatura procesowa 1 | | | | | | | | | | | | | | | | | | | | | | | | | 45 | | 60 | | 7 | E | | | | | | | | | | | | | | |
| 1070-IC000-ISP-513 | Laboratorium termodynamiki procesowej | | | | | | | | | | | | | | | | | | | | | | | | | | | | 45 | 3 | Z | | | | | | | | | | | | | | |
| 1070-IC000-ISP-516 | Automatyka procesowa | | | | | | | | | | | | | | | | | | | | | | | | | 15 | | | 15 | 3 | Z | | | | | | | | | | | | | | |
| 1070-IC000-ISP-PPx | Projekt przejściowy A | | | | | | | | | | | | | | | | | | | | | | | | | 15 | | 60 | 15 | 8 | Z | | | | | | | | | | | | | | |
| 1070-IC000-ISP-OBx | Przedmioty obieralne | | | | | | | | | | | | | | | | | | | | | | | | | 60 | | | | 4 | Z | | | | | | | | | | | | | | |
| 1070-IC000-ISP-610 | Procesy podstawowe i aparatura procesowa 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 45 | | 60 | | 7 | E | | | | | | | |
| 1070-IC000-ISP-612 | Laboratorium aparatury procesowej | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 60 | 4 | Z | | | | | | | |
| 1070-IC000-ISP-613 | Laboratorium kinetyki procesowej | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 45 | 3 | Z | | | | | | | |
| 1070-IC000-ISP-614 | Inżynieria reaktorów chemicznych 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 30 | | 15 | | 3 | E | | | | | | | |
| 1070-IC000-ISP-615 | Wstęp do obliczeniowej mechaniki płynów | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15 | | 30 | | 3 | Z | | | | | | | |
| 1070-IC000-ISP-616 | Bezpieczeństwo procesów przemysłowych | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 30 | | | | 2 | E | | | | | | | |
| 1070-IC000-ISP-PPx | Projekt przejściowy B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15 | | 60 | 15 | 8 | Z | | | | | | | |
| 1070-IC000-ISP-707 | Inżynieria reaktorów chemicznych 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15 | | 30 | | 3 | E |
| 1070-IC000-ISP-709 | Zasady tworzenia technologii przemysłowych | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 30 | | | | 2 | Z |
| 1070-IC000-ISP-712 | Praca dyplomowa inżynierska | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 150 | 15 | Z |
| 1070-IC000-ISP-713 | Praktyka przemysłowa | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 | Z |
| 1070-IC000-ISP-714 | Zaawansowane metody projektowania procesów | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15 | | 45 | | 4 | E |
| | ECTS w semestrze | 30 | | | | | | 30 | | | | | | 30 | | | | | | 30 | | | | | | 30 | | | | | | 30 | | | | | | 30 | | | | | |
| | Suma ECTS | 210 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Liczba godzin w semestrze | 420 | | | | | | 450 | | | | | | 480 | | | | | | 435 | | | | | | 390 | | | | | | 420 | | | | | | 285 | | | | | |
| | Suma godzin bez praktyki | 2880 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Godziny kontaktowe praktyki | 60 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Suma godzin z praktyką | **2940** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | ECTS obieralne w semestrze | 0 | | | | | | 6 | | | | | | 4 | | | | | | 12 | | | | | | 12 | | | | | | 8 | | | | | | 21 | | | | | |
| | Suma ECTS obieralne | 63 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | ECTS przedmioty HES | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |