**Profil praktyczny**

**Okres studiów 2016-20**

**Studnia stacjonarne**

***Załącznik nr 1do uchwały nr 149/XXVI/16***

**Kierunek: Metalurgia 2016-2020**

**Specjalność: Inżynieria Produkcji i Zarządzanie**

**W** - wykład **C** - ćwiczenia **L** - laboratorium **P** - projekt

| Przedmioty w poszczególnych modułach | Cały cykl kształcenia | | | | | | I semestr | | | | | II semestr | | | | | III semestr | | | | | IV semestr | | | | | V semestr | | | | | VI semestr | | | | | VII semestr | | | | | Forma zaliczenia |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L.godz. | ECTS | W | C | L | P | W | C | L | P | ects | W | C | L | P | ects | W | C | L | P | ects | W | C | L | P | ects | W | C | L | P | ects | W | C | L | P | ects | W | C | L | P | ects | |
| **Moduł ogólny** | 195 | 12 | 75 | 60 | 60 | 0 | 0 | 30 | 30 | 0 | 3 | 0 | 30 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 30 | 0 | 4 | 15 | 0 | 0 | 0 | 1 | 45 | 0 | 0 | 0 | 3 | |
| Rekreacja, wychowanie fizyczne I | 30 | 1 | | 30 | | | | 30 | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Zo |
| Rekreacja, wychowanie fizyczne II | 30 | 1 | | 30 | | | | | | | | | 30 | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | Zo |
| Przedmiot Humanistyczny I | 15 | 1 | 15 | | | | | | | | | | | | | | | | | | | | | | | | 15 | | | | 1 | | | | | | | | | | | Zo |
| Przedmiot Humanistyczny II | 15 | 1 | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15 | | | | 1 | Zo |
| Ochrona własności intelektualnej / Prawo w praktyce inżynierskiej | 15 | 1 | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15 | | | | 1 | Zo |
| Technologia informacyjna | 30 | 2 | | | 30 | | | | 30 | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Zo |
| Podstawy publikacji elektronicznych | 30 | 3 | | | 30 | | | | | | | | | | | | | | | | | | | | | | | | 30 | | 3 | | | | | | | | | | | Zo |
| Etyka | 15 | 1 | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15 | | | | 1 | | | | | | Zo |
| Ergonomia i bezpieczeństwo pracy | 15 | 1 | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15 | | | | 1 | Zo |
| **Moduł językowy** | 120 | 8 | 0 | 120 | 0 | 0 | 0 | 30 | 0 | 0 | 2 | 0 | 30 | 0 | 0 | 2 | 0 | 30 | 0 | 0 | 2 | 0 | 30 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Język angielski / Język niemiecki | 30 | 2 | | 30 | | | | 30 | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Zo |
| Język angielski / Język niemiecki | 30 | 2 | | 30 | | | | | | | | | 30 | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | Zo |
| Język angielski / Język niemiecki | 30 | 2 | | 30 | | | | | | | | | | | | | | 30 | | | 2 | | | | | | | | | | | | | | | | | | | | | Zo |
| Język angielski / Język niemiecki | 30 | 2 | | 30 | | | | | | | | | | | | | | | | | | | 30 | | | 2 | | | | | | | | | | | | | | | | EGZ |
| **Moduł podstawowy** | 390 | 38 | 150 | 150 | 90 | 0 | 60 | 75 | 30 | 0 | 16 | 75 | 45 | 60 | 0 | 17 | 15 | 30 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Analiza matematyczna | 45 | 5 | 15 | 30 | | | 15 | 30 | | | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | EGZ |
| Algebra liniowa | 45 | 5 | 15 | 30 | | | | | | | | 15 | 30 | | | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | EGZ |
| Zaawansowane metody matematyczne (matlab) | 45 | 5 | 15 | 30 | | | | | | | | | | | | | 15 | 30 | | | 5 | | | | | | | | | | | | | | | | | | | | | Zo |
| Fizyka klasyczna | 45 | 4 | 15 | 30 | | | 15 | 30 | | | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | EGZ |
| Fizyka relatywistyczna | 30 | 3 | 15 | | 15 | | | | | | | 15 | | 15 | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | Zo |
| Chemia | 75 | 7 | 30 | 15 | 30 | | 30 | 15 | 30 | | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | EGZ |
| Chemia fizyczna | 45 | 4 | 15 | | 30 | | | | | | | 15 | | 30 | | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | EGZ |
| Nowoczesne materiały w przemyśle | 60 | 5 | 30 | 15 | 15 | | | | | | | 30 | 15 | 15 | | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | EGZ |
| **Moduł kierunkowy** | 765 | 68 | 315 | 150 | 210 | 90 | 45 | 45 | 0 | 15 | 9 | 45 | 15 | 30 | 30 | 10 | 105 | 45 | 75 | 15 | 23 | 90 | 30 | 75 | 30 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 15 | 30 | 0 | 8 | |
| Podstawy Metalurgii | 60 | 5 | 30 | 15 | | 15 | 30 | 15 | | 15 | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | EGZ |
| Przetwórstwo metali | 45 | 4 | 15 | 30 | | | 15 | 30 | | | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | EGZ |
| Technolgie łączenia i spajania materiałów | 45 | 5 | 15 | | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15 | | 30 | | 5 | EGZ |
| Urządzenia cieplne w technice | 45 | 3 | 15 | | 30 | | | | | | | | | | | | | | | | | 15 | | 30 | | 3 | | | | | | | | | | | | | | | | Zo |
| Termodynamika | 45 | 6 | 15 | 30 | | | | | | | | | | | | | 15 | 30 | | | 6 | | | | | | | | | | | | | | | | | | | | | EGZ |
| Zaawansowane metody badania materiałów | 30 | 3 | 15 | | | 15 | | | | | | 15 | | | 15 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | Zo |
| Mechanika i Wytrzymałość Materiałów | 60 | 5 | 30 | 15 | 15 | | | | | | | | | | | | 30 | 15 | 15 | | 5 | | | | | | | | | | | | | | | | | | | | | EGZ |
| Grafika inzynierska i projektowanie | 45 | 3 | 15 | 15 | | 15 | | | | | | 15 | 15 | | 15 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | Zo |
| Podstawy cybernetyki | 30 | 3 | 15 | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15 | 15 | | | 3 | Zo |
| Informatyka | 45 | 4 | 15 | | 30 | | | | | | | 15 | | 30 | | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | Zo |
| Technologia CAD/CAM | 45 | 3 | 15 | | 15 | 15 | | | | | | | | | | | | | | | | 15 | | 15 | 15 | 3 | | | | | | | | | | | | | | | | Zo |
| Metaloznawstwo | 75 | 6 | 30 | | 30 | 15 | | | | | | | | | | | 30 | | 30 | 15 | 6 | | | | | | | | | | | | | | | | | | | | | EGZ |
| Procesy przeróbki plastycznej | 60 | 5 | 30 | 15 | 15 | | | | | | | | | | | | | | | | | 30 | 15 | 15 | | 5 | | | | | | | | | | | | | | | | EGZ |
| Metalurgia metali | 60 | 6 | 30 | | 30 | | | | | | | | | | | | 30 | | 30 | | 6 | | | | | | | | | | | | | | | | | | | | | EGZ |
| Procesy metalurgii ekstrakcyjnej | 75 | 7 | 30 | 15 | 15 | 15 | | | | | | | | | | | | | | | | 30 | 15 | 15 | 15 | 7 | | | | | | | | | | | | | | | | EGZ |
| **Moduł specjalności: Inżynieria Produkcji i Zarządzanie** | 465 | 44 | 180 | 120 | 45 | 120 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 105 | 45 | 30 | 45 | 26 | 60 | 60 | 15 | 60 | 14 | 15 | 15 | 0 | 15 | 4 | |
| Podstawy zarządzania | 30 | 4 | 15 | 15 | | | | | | | | | | | | | | | | | | | | | | | 15 | 15 | | | 4 | | | | | | | | | | | Zo |
| Współczesne systemy zarządzania i ogranizacji produkcji | 45 | 4 | 15 | 15 | | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | 15 | 15 | | 15 | 4 | | | | | | EGZ |
| Systemy zapewniania jakości | 75 | 6 | 30 | | 15 | 30 | | | | | | | | | | | | | | | | | | | | | 30 | | 15 | 30 | 6 | | | | | | | | | | | EGZ |
| Finanse i rachunkowość | 30 | 6 | 15 | 15 | | | | | | | | | | | | | | | | | | | | | | | 15 | 15 | | | 6 | | | | | | | | | | | EGZ |
| Logistyka w przedsiębiorstwie / systemy logistyczne | 45 | 6 | 15 | 15 | | 15 | | | | | | | | | | | | | | | | | | | | | 15 | 15 | | 15 | 6 | | | | | | | | | | | EGZ |
| Rachunek kosztów dla inżynierów/ Analiza kosztów w procesie decyzyjnym | 45 | 3 | | 30 | | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | 30 | | 15 | 3 | | | | | | Zo |
| Optymalizowanie procesów produkcyjnych | 60 | 4 | 30 | | 15 | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | 30 | | 15 | 15 | 4 | | | | | | EGZ |
| Zarządanie zasobami ludzkimi | 45 | 4 | 15 | 15 | | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15 | 15 | | 15 | 4 | EGZ |
| Zarządzanie ochroną środowiska / Utylizacja i recykling odpadów | 45 | 3 | 15 | 15 | | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | 15 | 15 | | 15 | 3 | | | | | | Zo |
| Zarządzanie niezawodnością systemów technicznych | 30 | 3 | 15 | | 15 | | | | | | | | | | | | | | | | | | | | | | 15 | | 15 | | 3 | | | | | | | | | | | Zo |
| Prawo gospodarcze/ Prawne aspekty funkcjonowania przedsiębiorstw | 15 | 1 | 15 | | | | | | | | | | | | | | | | | | | | | | | | 15 | | | | 1 | | | | | | | | | | | Zo |
| **Moduł edycji pracy dyplomowej** | 60 | 40 | 0 | 60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 15 | 0 | 30 | 0 | 0 | 15 | |
| Seminarium dyplomowe 1 i 2 | 60 | 20 | | 60 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 30 | | | 5 | | 30 | | | 15 | ZAL |
| Praktyka zawodowa | | 20 | | | | | | | | | | | | | | | | | | | | | | | | 10 | | | | | | | | | | 10 | | | | | | Zo |
| Razem | 1995 | 210 | 720 | 660 | 405 | 210 | 105 | 180 | 60 | 15 | 30 | 120 | 120 | 90 | 30 | 30 | 120 | 105 | 75 | 15 | 30 | 90 | 60 | 75 | 30 | 30 | 120 | 45 | 60 | 45 | 30 | 75 | 90 | 15 | 60 | 30 | 90 | 60 | 30 | 15 | 30 | |
| | | | | | razem sem. | | 360 | | | | | 360 | | | | | 315 | | | | | 255 | | | | | 270 | | | | | 240 | | | | | 195 | | | | | |

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|---|---|
| Treści podstawowe i kierunkowe | 1 155 |
| Treści językowe | 120 |
| Treści ogólne | 195 |
| Treści specjalnościowe | 465 |
| Treści seminarium dyplomowego | 60 |
| Razem | 1 995 |