

| L.p. | Sposób zaliczenia | Razem godz. | godziny | | | I ROK | | | | | | II ROK | | | | | | | | | | | | | | | | | | |
|---------------------------|---|-------------|-------------|----------------------|------|-------|-----|---|-------|-------------|---|--------|-----|-------|-----------|-------------|---|--------|-------|----------|-----------|-------------|----|-------|-----------|-----------|------|-------------|--|--|
| | | | | | | 1 sem | | | ECTS | | | 2 sem | | | ECTS | | | 3 sem. | | | ECTS | | | 4 sem | | | ECTS | | | |
| | | | wyk. | ćw. | lab. | w | ć | l | obow. | wyb. | w | ć | l | obow. | wyb. | w | ć | l | obow. | wyb. | w | ć | l | obow. | wyb. | | | | | |
| 1 | Wstęp do teorii chaosu *) | E + ZO | 75 | 30 | 0 | 45 | 2 | 3 | 5 | | | | | | | | | | | | | | | | | | | | | |
| 2 | Zastosowania teorii grup w fizyce *) - wykład | E | 30 | 30 | 0 | 0 | 2 | | 2 | | | | | | | | | | | | | | | | | | | | | |
| 3 | Zastosowania teorii grup w fizyce *) - ćwiczenia | ZO | 30 | 0 | 30 | 0 | 2 | | 2 | | | | | | | | | | | | | | | | | | | | | |
| 4 | Zaawansowane metody numeryczne w fizyce *) | ZO | 45 | 15 | 0 | 30 | 1 | 2 | 3 | | | | | | | | | | | | | | | | | | | | | |
| 5 | Fizyka kwantowa *) - wykład | E | 45 | 45 | 0 | 0 | 3 | | 3 | | | | | | | | | | | | | | | | | | | | | |
| 6 | Fizyka kwantowa *) - ćwiczenia | ZO | 30 | 0 | 30 | 0 | 2 | | 2 | | | | | | | | | | | | | | | | | | | | | |
| 7 | Spektroskopia atomowa i molekularna *) - wykład | E | 45 | 45 | 0 | 0 | 3 | | 3 | | | | | | | | | | | | | | | | | | | | | |
| 8 | Spektroskopia atomowa i molekularna *) - ćwiczenia | ZO | 30 | 0 | 30 | 0 | 2 | | 2 | | | | | | | | | | | | | | | | | | | | | |
| 9 | Biofizyka *) | ZO | 75 | 45 | 0 | 30 | 3 | 2 | 5 | | | | | | | | | | | | | | | | | | | | | |
| 10 | Metody doświadczalne fizyki *) | ZO | 45 | 45 | 0 | 0 | 3 | | 3 | | | | | | | | | | | | | | | | | | | | | |
| 11 | Fizyka fazy skondensowanej *) - wykład | E | 45 | 45 | 0 | 0 | | | | 3 | | | 3 | | | | | | | | | | | | | | | | | |
| 12 | Fizyka fazy skondensowanej *) - ćwiczenia | ZO | 60 | 0 | 30 | 30 | | | | | 2 | 2 | 4 | | | | | | | | | | | | | | | | | |
| 13 | Ogólna teoria względności *) - wykład | E | 30 | 30 | 0 | 0 | | | | 2 | | | 2 | | | | | | | | | | | | | | | | | |
| 14 | Ogólna teoria względności *) - ćwiczenia | ZO | 30 | 0 | 30 | 0 | | | | | 2 | | 2 | | | | | | | | | | | | | | | | | |
| 15 | Informacja kwantowa *) - wykład | E | 45 | 45 | 0 | 0 | | | | 3 | | | 3 | | | | | | | | | | | | | | | | | |
| 16 | Informacja kwantowa *) - ćwiczenia | ZO | 45 | 0 | 45 | 0 | | | | | 3 | | 3 | | | | | | | | | | | | | | | | | |
| 17 | Przedmiot do wyboru I **) | ZO | 60 | 30 | 30 | 0 | | | | 2 | 2 | | | 6 | | | | | | | | | | | | | | | | |
| 18 | Laboratorium fizyczne *) | ZO | 75 | 0 | 0 | 75 | | | | | | 5 | | 5 | | | | | | | | | | | | | | | | |
| 19 | Elektronika w eksperymencie fiz. lub symulacje komputerowe *) | ZO | 45 | 0 | 0 | 45 | | | | | | 3 | | 3 | | | | | | | | | | | | | | | | |
| 20 | Modelowanie stochastyczne *) | ZO | 60 | 30 | 0 | 30 | | | | | | | | | 2 | | 2 | 4 | | | | | | | | | | | | |
| 21 | Fizyka jądra atomowego i cząstek elementarnych *) - wykład | E | 30 | 30 | 0 | 0 | | | | | | | | | 2 | | | 2 | | | | | | | | | | | | |
| 22 | Fizyka jądra atomowego i cząstek elementarnych *) - ćwiczenia | ZO | 30 | 0 | 30 | 0 | | | | | | | | | | 2 | | 2 | | | | | | | | | | | | |
| 23 | Laboratorium informacji kwantowej *) | ZO | 30 | 0 | 0 | 30 | | | | | | | | | | 2 | | 2 | | | | | | | | | | | | |
| 24 | Blok przedmiotów do wyboru **) | ZO | 120 | 60 | 60 | 0 | | | | | | | | | 4 | 4 | | | 12 | | | | | | | | | | | |
| 25 | Seminarium dyplomowe I *) | ZO | 30 | 0 | 30 | 0 | | | | | | | | | | 2 | | 2 | | | | | | | | | | | | |
| 26 | Pracownia magisterska I *) | ZO | 75 | 0 | 0 | 75 | | | | | | | | | | 5 | | 5 | | | | | | | | | | | | |
| 27 | Laboratorium fizyki jądrowej | ZO | 45 | 0 | 0 | 45 | | | | | | | | | | | | | | | | 3 | 3 | | | | | | | |
| 28 | Teoria pola *) - wykład | E | 45 | 45 | 0 | 0 | | | | | | | | | | | | | | | 3 | | | 3 | | | | | | |
| 29 | Teoria pola *) - ćwiczenia | ZO | 45 | 0 | 45 | 0 | | | | | | | | | | | | | | | | 3 | | 3 | | | | | | |
| 30 | Przedmiot do wyboru II **) | ZO | 60 | 30 | 30 | 0 | | | | | | | | | | | | | | | 2 | 2 | | 6 | | | | | | |
| 31 | Seminarium dyplomowe II *) | ZO | 30 | 0 | 30 | 0 | | | | | | | | | | | | | | | | 2 | | 2 | | | | | | |
| 32 | Pracownia magisterska II *) | ZO | 75 | 0 | 0 | 75 | | | | | | | | | | | | | | | | 5 | | 5 | | | | | | |
| 33 | Wykład wydziałowy - matematyka | ZO | 30 | 30 | 0 | 0 | | | | | | | | | | | | | | | 2 | | | 2 | | | | | | |
| 34 | Konwersatorium języka angielskiego | ZO | 30 | 0 | 30 | 0 | | | | | | | | | | | | | | | | 2 | | 2 | | | | | | |
| 35 | Podstawy mikroprzedsiebiorczości | ZO | 30 | 15 | 15 | 0 | | | | | | | | | | | | | | | 1 | 1 | | 3 | | | | | | |
| 36 | Filozofia nauki | ZO | 15 | 15 | 0 | 0 | | | | 1 | | | 2 | | | | | | | | | | | | | | | | | |
| 37 | BiHK | Z | 0 | 0 | 0 | 0 | | | 0 | | | | | | | | | | | | | | | | | | | | | |
| 38 | Szkolenie biblioteczne | Z | 0 | 0 | 0 | 0 | | | 0 | | | | | | | | | | | | | | | | | | | | | |
| Liczba godz. Razem | | | 1665 | 660 | 495 | 510 | 17 | 6 | 7 | 30 | 0 | 11 | 9 | 10 | 19 | 14 | 8 | 8 | 9 | 8 | 21 | 8 | 10 | 8 | 14 | 15 | | | | |
| sumy Rodzajami zaj. | | | 1665 | Liczba godzin w tyg. | | | 30 | | | 30 | | | 30 | | | 33 | | | 25 | | | 29 | | | 26 | | | 29 | | |
| kontrolne w semest. | | | 1665 | Liczba godzin w sem. | | | 450 | | | ECTS | | | 450 | | | ECTS | | | 375 | | | ECTS | | | 390 | | | ECTS | | |
| Razem l. egz. l.zal.oc. | | | 9 | 28 | | | | | | | | | | | | | | | | | | | | | | | | | | |

LEGENDA:

| | |
|--------|---|
| E | egzamin |
| ZO | zaliczenie na ocenę |
| E + ZO | jedna ocena (średnia ocen z egzaminu i zaliczenia laboratorium) |
| ZO | zaliczenie na ocenę |
| Z | zaliczenie bez oceny |
| *) | przedmiot zawierający możliwość konsultacji w języku angielskim |
| **) | przedmiot bez narzuconej formy realizacji |

| | |
|----------------------------|-------------|
| Lączna suma ECTS | 121 |
| Lączna liczba godzin zajęć | 1665 |
| ECTS przedmioty do wyboru | 50 |
| | 41.32 % |

| | |
|---|-----|
| ECTS zajęcia z dziedziny nauk społecznych lub nauk społecznych | 5 |
| ECTS za zajęcia w ramach zajęć prowadzonych z bezpośrednim udziałem nauczycieli akademickich lub innych osób prowadzących zajęcia | 121 |

| | | | | | | | |
|-----|-----------|-----|-----------|-----|-----------|-----|-----------|
| 3 8 | egz. zal. | 3 6 | egz. zal. | 1 7 | egz. zal. | 2 7 | egz. zal. |
|-----|-----------|-----|-----------|-----|-----------|-----|-----------|