# PLAN STUDIÓW – STUDIA STACJONARNE PIERWSZEGO STOPNIA

| Akademia Morska w Szczecinie<br>Wydział Mechaniczny | Kierunek: Mechatronika<br>Specjalność: Mechatronika Systemów Energetycznych | Zatwierdzony Uchwałą Rady Wydziału Mechanicznego<br>z dnia 18.05.2010 r. | Obowiązuje od roku akademickiego 2010/2011<br>od pierwszego roku studiów |
|---|---|---|---|

| Nr | Nazwa przedmiotu | Godziny | | | | | | Rozkład zajęć w semestrze tygodniowo | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | I semestr 15 tyg. | | | | | II semestr 15 tyg. | | | | | III semestr 15 tyg. | | | | | IV semestr 15 tyg. | | | | | V semestr 15 tyg. | | | | | VI semestr 15 tyg | | | | | VII semestr 12 tyg. | | | | |
| | | Σ | W | Ć | L | S | ECTS | W | Ć | L | S | E | W | Ć | L | S | E | W | Ć | L | S | E | W | Ć | L | S | E | W | Ć | L | S | E | W | Ć | L | S | E | W | Ć | L | S | E |
| 1 | Język angielski* | 210 | – | – | 210 | – | 13 | – | – | 3 | – | 2 | – | – | 3 | – | 2 | – | – | 2 | – | 2 | – | – | 2 | – | 2 | – | – | 2 | – | 2 | – | – | 2E | – | 3 | – | – | – | – | – |
| 2 | Wychowanie fizyczne | 90 | – | – | 90 | – | – | – | – | 2 | – | – | – | – | 2 | – | – | – | – | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 3 | Podstawy ekonomii | 30 | 30 | – | – | – | 1 | 2 | – | – | – | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 4 | Nauka o pracy i kierowaniu* | 24 | 24 | – | – | – | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 2 | – | – | – | 1 |
| 5 | Ochrona własności intelektualnej | 15 | 15 | – | – | – | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 1 | – | – | – | 1 | – | – | – | – | – | – | – | – |
| 6 | Matematyka | 165 | 60 | 105 | – | – | 15 | 2E | 3 | – | – | 6 | 1 | 2 | – | – | 4 | 1E | 2 | – | – | 5 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 7 | Fizyka* | 105 | 45 | – | 60 | – | 9 | 2 | – | 2 | – | 4 | 1E | – | 2 | – | 5 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 8 | Automatyka i robotyka* | 90 | 45 | 30 | 15 | – | 6 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 2 | 2 | – | – | 4 | 1E | – | 1 | – | 2 | – | – | – |
| 9 | Języki programowania | 60 | 30 | – | 30 | – | 4 | – | – | – | – | – | – | – | – | – | – | 2 | – | 2 | – | 4 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 10 | Teoria sterowania | 60 | 30 | – | 30 | – | 4 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 2E | – | 2 | – | 4 | – | – | – | – | – | – | – | – |
| 11 | Materiałoznawstwo okrętowe* | 90 | 45 | – | 45 | – | 6 | 3E | – | 3 | – | 6 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 12 | Wstęp do mechatroniki | 30 | 30 | – | – | – | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 2 | – | – | – | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 13 | Mechanika | 90 | 45 | 30 | 15 | – | 9 | 2 | 2 | – | – | 5 | 1E | – | 1 | – | 4 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 14 | Mechanika płynów | 30 | 15 | 15 | – | – | 4 | – | – | – | – | – | 1 | 1 | – | – | 4 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 15 | Wytrzymałość materiałów | 90 | 30 | 30 | 30 | – | 7 | – | – | – | – | – | – | – | – | – | – | 1 | 1 | – | – | 3 | 1E | 1 | 2 | – | 4 | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 16 | Grafika inżynierska | 60 | – | – | 60 | – | 4 | – | – | 4 | – | 4 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 17 | Podstawy konstrukcji maszyn | 105 | 30 | – | 75 | – | 7 | – | – | – | – | – | – | – | – | – | – | 2E | – | 2 | – | 4 | – | – | 3 | – | 3 | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 18 | Inżynieria wytwarzania | 75 | 30 | – | 45 | – | 6 | – | – | – | – | – | – | – | – | – | – | 1 | – | 2 | – | 4 | 1 | – | 1 | – | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 19 | Podstawy elektrotechniki i elektroniki* | 75 | 30 | 15 | 30 | – | 4 | – | – | – | – | – | – | – | – | – | – | 2E | 1 | 2 | – | 4 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 20 | Podstawy informatyki | 30 | – | – | 30 | – | 2 | – | – | – | – | – | – | – | 2 | – | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 21 | Komputerowe wspomaganie w mechatronice | 60 | 30 | – | 30 | – | 4 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 2E | – | 2 | – | 4 | – | – | – | – | – | – | – | – |
| 22 | Metrologia i systemy pomiarowe* | 90 | 30 | – | 60 | – | 7 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 1 | – | 2 | – | 4 | 1 | – | 2 | – | 3 | – | – | – |
| 23 | Organizacja nadzoru | 24 | 12 | 12 | – | – | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 1 | 1 | – | 1 |
| 24 | Technologie informacyjne | 30 | 30 | – | – | – | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 2 | – | – | – | 2 | – | – | – |
| 25 | Napędy hydrauliczne | 30 | 15 | – | 15 | – | 3 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 1 | – | 1 | – | 3 | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 26 | Energoelektroniczne przetwarzanie energii elektrycznej* | 30 | 30 | – | – | – | 3 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 2,5 | – | – | – | 3 |
| 27 | Systemy automatyki okrętowej | 45 | 30 | – | 15 | – | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 2 | – | 1 | – | 2 | – | – | – |
| 28 | Zaawansowane systemy informatyczne | 90 | 30 | – | 60 | – | 5 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 1 | – | 2 | – | 3 | 1 | – | 2 | – | 2 | – | – | – |
| 29 | Technologia remontów | 60 | 30 | – | 30 | – | 3 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 2 | – | 2 | – | 3 | – | – | – |
| 30 | Termodynamika techniczna | 45 | 15 | 15 | 15 | – | 5 | – | – | – | – | – | 1 | 1 | 1 | – | 5 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 31 | Cyfrowe systemy sterowania | 60 | 36 | 12 | 12 | – | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 3 | 1 | 1 | – | 2 |
| 32 | Sensoryka i przetwarzanie sygnałów | 90 | 45 | 30 | 15 | – | 3 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 3E | 2 | 1 | – | 3 | – | – | – |
| 33 | Chemia techniczna wody, paliw i smarów | 45 | 15 | – | 30 | – | 3 | – | – | – | – | – | 1 | – | 2 | – | 3 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 34 | Użytkowanie paliw i środków smarowych | 15 | 15 | – | – | – | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 1 | – | – | – | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 35 | Systemy sterowania rozproszonego | 48 | 24 | 12 | 12 | – | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 2 | 1 | 1 | – | 2 |
| 36 | Maszyny elektryczne i napędy elektryczne* | 75 | 45 | – | 30 | – | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 3 | – | – | – | 1 | – | – | 2 | – | 1 | – | – | – | – | – | – | – | – |
| 37 | Budowa okrętu i wyposażenie pokładowe | 30 | 30 | – | – | – | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 2 | – | – | – | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 38 | Chłodnictwo, klimatyzacja i wentylacja | 30 | 15 | – | 15 | – | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 1 | – | 1 | – | 2 | – | – | – |
| 39 | Maszyny i urządzenia okrętowe | 90 | 60 | – | 30 | – | 5 | – | – | – | – | – | – | – | – | – | – | 2 | – | – | – | 2 | 2E | – | 2 | – | 3 | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 40 | Ochrona środowiska morskiego* | 15 | 15 | – | – | – | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 1,25 | – | – | – | 1 |
| 41 | Wiedza okrętowa | 30 | 30 | – | – | – | 2 | 2 | – | – | – | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 42 | Robotyka | 84 | 48 | 24 | 12 | – | 3 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 4E | 2 | 1 | – | 3 |
| 43 | Tłokowe silniki spalinowe i ich systemy sterowania | 60 | 30 | – | 30 | – | 3 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 2 | – | 2 | – | 3 | – | – | – | – | – | – | – | – |
| 44 | Siłownie okrętowe* | 90 | 30 | – | 15 | 45 | 5 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 2 | – | 1 | – | 3 | – | – | – | 3 | 2 | – | – | – |
| 45 | Diagnostyka systemów (#) | 36# | 24# | – | 12# | – | 1# | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 2# | – | 1# | – | 1# |
| 46 | Okrętowe systemy napędowe (#) | 36 | 24 | – | 12 | – | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 2 | – | 1 | – | 1 |
| 47 | Wybrane systemy przemysłowe (#) | 36 | 36 | – | – | – | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 3 | – | – | – | 1 |
| 48 | Seminarium dyplomowe | 15 | 15 | – | – | – | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 1,25 | – | – | – | 1 |
| 49 | Praktyka zawodowa | – | – | – | – | – | 16 | – | – | – | – | – | – | – | – | – | 4 | – | – | – | – | – | – | – | – | – | 4 | – | – | – | – | – | – | – | – | – | 8 | – | – | – | – |
| 50 | Praca dyplomowa inżynierska | – | – | – | – | – | 15 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 15 |
| | | **2877** | 1299 | 330 | 1203 | 45 | 210 | 13 | 5 | 14 | 0 | 30 | 6 | 4 | 13 | 0 | 33 | 11 | 4 | 12 | 0 | 28 | 13 | 1 | 11 | 0 | 27 | 13 | 2 | 15 | 0 | 29 | 13 | 2 | 12 | 3 | 32 | 22 | 5 | 4 | 0 | 31 |
| Obciążenie godzinowe w tygodniu: | | | | | | | | **32** | | | | | **23** | | | | | **27** | | | | | **25** | | | | | **30** | | | | | **30** | | | | | **31** | | | | |
| Liczba godzin w semestrze: | | | | | | | | 480 | | | | | 345 | | | | | 405 | | | | | 375 | | | | | 450 | | | | | 450 | | | | | 372 | | | | |

* – zawiera treści programowe STCW,
(#) – 2 z 3 znajdujące się w siatce – przedmioty obieralne (do wyboru).