# 3.4.2 PLAN STUDIÓW I STOPNIA DLA KANDYDATÓW NA ŻOŁNIERZY ZAWODOWYCH NABÓR 2014

**Kierunek studiów: geodezja i kartografia** | **Korpus osobowy: "30" rozpoznania i walki elektronicznej**

**Specjalność: rozpoznanie obrazowe** | **Grupa osobowa: "A" rozpoznanie ogólne / "C" geograficzna**

| Indeks | grupa przedmiotowa, przedmioty | ogółem liczba godzin/ pkt ECTS | | | Liczba godzin według formy zajęć | | | | | studia pierwszego stopnia – liczba godzin/rygor/pkt ECTS w semestrze: I | | | II | | | III | | | IV | | | V | | | VI | | | VII | | | jednostka organizacyjna (instytut/katedra) odpowiedzialna za przedmiot |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | razem | w tym w CS | ECTS | wykł. | ćwicz. | lab. | projekt | semin. | godz. | Ryg. | ECTS | godz. | Ryg. | ECTS | godz. | Ryg. | ECTS | godz. | Ryg. | ECTS | godz. | Ryg. | ECTS | godz. | Ryg. | ECTS | godz. | Ryg. | ECTS | |
| **A. Moduł kształcenia wojskowego** | | **1176** | | | **237** | **939** | | | | **179** | | | **237** | | | **137** | | | **150** | | | **172** | | | **147** | | | **154** | | | |
| **I. Grupa treści kształcenia podstawowego** | | **123** | | | **60** | **63** | | | | **10** | | | **26** | | | **32** | | | **13** | | | **16** | | | **16** | | | **10** | | | |
| A.I.1 | Działalność wychowawcza w wojsku - I | **26** | | | 12 | 14 | | | | 10 | Z | | 16 | Zo | | | | | | | | | | | | | | | | | WCY-IOZ |
| A.I.2 | Komunikacja społeczna | **10** | | | 6 | 4 | | | | | | | | | | | | | | | | | | | | | | 10 | Zo | | WCY-IOZ |
| A.I.3 | Podstawy pedagogiki | **16** | | | 8 | 8 | | | | | | | | | | 16 | Zo | | | | | | | | | | | | | | WCY-IOZ |
| A.I.4 | Przywództwo w dowodzeniu | **45** | | | 22 | 23 | | | | | | | | | | | | | 13 | Zo | | 16 | Zo | | 16 | Zo | | | | | WCY-IOZ |
| A.I.5 | Historia sztuki wojennej | **16** | | | 6 | 10 | | | | | | | | | | 16 | Zo | | | | | | | | | | | | | | WCY-IOZ |
| A.I.6 | Ochrona informacji niejawnych | **10** | | | 6 | 4 | | | | | | | 10 | Zo | | | | | | | | | | | | | | | | | SSW |
| **II. Grupa treści kształcenia kierunkowego** | | **393** | | | **177** | **216** | | | | **79** | | | **61** | | | **45** | | | **77** | | | **66** | | | **41** | | | **24** | | | |
| A.II.1 | Podstawy dowodzenia | 16 | | | 8 | 8 | | | | | | | | | | 16 | Zo | | | | | | | | | | | | | | SSW |
| A.II.2 | Taktyka ogólna | 32 | | | 22 | 10 | | | | 18 | Zo | | 14 | Zo | | | | | | | | | | | | | | | | | SSW |
| A.II.3 | Gotowość bojowa i mobilizacyjna | 16 | | | 12 | 4 | | | | | | | | | | | | | | | | | | | 16 | Zo | | | | | SSW |
| A.II.4 | Rozpoznanie wojskowe i armie innych państw - I | 16 | | | 10 | 6 | | | | 16 | Zo | | | | | | | | | | | | | | | | | | | | SSW |
| A.II.5 | Topografia wojskowa | 40 | | | 18 | 22 | | | | 12 | Zo | | | | | 12 | Zo | | | | | 16 | E | | | | | | | | WIG |
| A.II.6 | Zabezpieczenie logistyczne działań taktycznych - I | 16 | | | 10 | 6 | | | | | | | | | | | | | | | | 16 | Zo | | | | | | | | WME-ILOG |
| A.II.7 | Teoria i praktyka strzelań - I | 78 | | | 2 | 76 | | | | 15 | Z | | 15 | Zo | | 9 | Z | | 11 | Zo | | 9 | Z | | 11 | Zo | | 8 | Z | | SSW |
| A.II.8 | Środki dowodzenia - I | 20 | | | 10 | 10 | | | | 10 | Zo | | | | | | | | 10 | Zo | | | | | | | | | | | WEL |
| A.II.9 | Działalność szkoleniowa w wojsku - I | 16 | | | 6 | 10 | | | | | | | | | | | | | 16 | Zo | | | | | | | | | | | SSW |
| A.II.10 | Wybrane zagadnienia bezpieczeństwa narodowego i międzynarodowego - I | 16 | | | 6 | 10 | | | | | | | | | | | | | | | | | | | | | | 16 | Zo | | WCY-IOZ |
| A.II.11 | Podstawy eksploatacji sprzętu wojskowego (SpW) | 14 | | | 8 | 6 | | | | | | | | | | | | | | | | | | | 14 | Zo | | | | | WML |
| A.II.12 | Wsparcie wojsk sojuszniczych przez państwo-gospodarza (HNS) | 8 | | | 6 | 2 | | | | | | | | | | 8 | Z | | | | | | | | | | | | | | WME-ILOG |
| A.II.13 | Ochrona środowiska | 15 | | | 10 | 5 | | | | | | | | | | | | | | | | 15 | Z | | | | | | | | WIG |
| A.II.14 | OPL i powszechna obrona przeciwlotnicza | 20 | | | 14 | 6 | | | | | | | | | | | | | 20 | Zo | | | | | | | | | | | SSW |
| A.II.15 | Obrona przed bronią masowego rażenia | 16 | | | 6 | 10 | | | | | | | 16 | Zo | | | | | | | | | | | | | | | | | WTC |
| A.II.16 | Wsparcie ogniowe | 20 | | | 16 | 4 | | | | | | | | | | | | | 20 | Zo | | | | | | | | | | | WML |
| A.II.17 | Wsparcie inżynieryjne - I | 16 | | | 8 | 8 | | | | | | | 16 | Zo | | | | | | | | | | | | | | | | | SSW |
| A.II.18 | Regulaminy SZ RP - I | 18 | | | 5 | 13 | | | | 8 | Zo | | | | | | | | | | | 10 | Zo | | | | | | | | SSW |
| **III. Grupa treści kształcenia sportowo-językowego** | | **660** | | | | **660** | | | | **90** | | | **150** | | | **60** | | | **60** | | | **90** | | | **90** | | | **120** | | | |
| A.III.1 | Język obcy | 300 | | | | 300 | | | | 60 | Zo | | 60 | Zo | | 30 | Zo | | 30 | Zo | | 30 | Zo | | 30 | Zo | | 60 | Zo | | SJO |
| A.III.2 | Wychowanie fizyczne | 300 | | | | 300 | | | | 30 | Zo | | 30 | Zo | | 30 | Zo | | 30 | Zo | | 60 | Zo | | 60 | Zo | | 60 | Zo | | SWF |
| A.III.3 | Obóz sportowo językowy - JO | 30 | | | | 30 | | | | | | | 30 | Zo | | | | | | | | | | | | | | | | | SJO |
| A.III.4 | Obóz sportowo językowy - WF | 30 | | | | 30 | | | | | | | 30 | Zo | | | | | | | | | | | | | | | | | SWF |
| **B. Moduł kształcenia kierunkowego** | | **1650** | | **124** | **778** | **358** | **432** | **82** | | **306** | | **29** | **392** | | **27** | **318** | | **26** | **408** | | **24** | **150** | | **13** | **76** | | **5** | | | | |
| **I. Przedmioty ogólne** | | **172** | | **11** | **130** | **28** | **10** | **4** | | **110** | | **7** | **16** | | **1** | | | | **46** | | **3** | | | | | | | | | | |
| B.I.1 | technologia informacyjna (T) | **30** | | 2 | 16 | | 10 | 4 | | 30 | Zo | 2 | | | | | | | | | | | | | | | | | | | WCY |
| B.I.2 | wybrane zagadnienia prawa | **16** | | 1 | 16 | | | | | 16 | Zo | 1 | | | | | | | | | | | | | | | | | | | WCY |
| B.I.3 | etyka zawodowa | **16** | | 1 | 16 | | | | | | | | 16 | Zo | 1 | | | | | | | | | | | | | | | | WCY |
| B.I.4 | przedmiot humanistyczny wzbieralny | **30** | | 2 | 24 | 6 | | | | 30 | Zo | 2 | | | | | | | | | | | | | | | | | | | WCY |
| | ekonomia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | WCY |
| | geografia fizyczna i gospodarcza | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | ekologia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | WIG |
| B.I.5 | Przedmiot wybieralny | **46** | | 3 | 30 | 16 | | | | | | | | | | | | | 46 | Zo | 3 | | | | | | | | | | WIG |
| | podstawy hydrografii | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | WIG |
| | podstawy wiedzy o atmosferze | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | WIG |
| B.I.6 | podstawy zarządzania (ergonomia, bezpieczeństwo) | **30** | | 2 | 24 | 6 | | | | 30 | Zo | 2 | | | | | | | | | | | | | | | | | | | WIG |
| B.I.7 | bezpieczeństwo i higiena pracy | **4** | | | 4 | | | | | 4 | Zo | | | | | | | | | | | | | | | | | | | | WIG |
| **II. Przedmioty podstawowe** | | **572** | | **45** | **278** | **182** | **112** | | | **136** | | **15** | **240** | | **16** | **166** | | **12** | **30** | | **2** | | | | | | | | | | |
| B.II.1 | matematyka | **120** | | 10 | 30 | 30 | | | | 60 | E | 6 | | | | | | | | | | | | | | | | | | | WCY |
| | | | | | 30 | 30 | | | | | | | 60 | E | 4 | | | | | | | | | | | | | | | | |
| | kurs wyrównawczy | ***30*** | | | | | | | | *30* | | | | | | | | | | | | | | | | | | | | | |
| B.II.2 | fizyka | **90** | | 8 | 28 | 16 | 16 | | | | | | 60 | E | 5 | | | | | | | | | | | | | | | | WTC |
| | | | | | 14 | 16 | | | | | | | | | | 30 | E | 3 | | | | | | | | | | | | | |
| | kurs wyrównawczy | ***30*** | | | | | | | | *30* | | | | | | | | | | | | | | | | | | | | | |
| B.II.3 | informatyka | **30** | | 2 | 14 | | 16 | | | | | | 30 | Zo | 2 | | | | | | | | | | | | | | | | WCY |
| B.II.4 | grafika inżynierska | **46** | | 5 | 16 | 30 | | | | 46 | Zo | 5 | | | | | | | | | | | | | | | | | | | WME |
| B.II.5 | informatyka geodezyjno-kartograficzna | **60** | | 4 | 14 | | 16 | | | | | | 30 | Zo | 2 | | | | | | | | | | | | | | | | |
| | | | | | 14 | | 16 | | | | | | | | | 30 | Zo | 2 | | | | | | | | | | | | | |
| B.II.6 | geodezyjna technika pomiarowa | **90** | | 8 | 14 | | 16 | | | 30 | Zo | 4 | | | | | | | | | | | | | | | | | | | |
| | | | | | 14 | | 16 | | | | | | 30 | Zo | 2 | | | | | | | | | | | | | | | | |
| | | | | | 14 | | 16 | | | | | | | | | 30 | E | 2 | | | | | | | | | | | | | WIG |
| B.II.7 | podstawy budownictwa i planowania przestrz. | **30** | | 2 | 16 | 14 | | | | | | | | | | | | | 30 | Zo | 2 | | | | | | | | | | |
| B.II.8 | matematyczne podstawy kartografii | **46** | | 3 | 30 | 16 | | | | | | | | | | 46 | E | 3 | | | | | | | | | | | | | |
| B.II.9 | podstawy nauk o Ziemi | **60** | | 3 | 16 | 14 | | | | | | | 30 | Zo | 1 | | | | | | | | | | | | | | | | |
| | | | | | 14 | 16 | | | | | | | | | | 30 | Zo | 2 | | | | | | | | | | | | | |
| **III. Przedmioty kierunkowe** | | **906** | | **68** | **370** | **148** | **310** | **78** | | **60** | | **7** | **136** | | **10** | **152** | | **14** | **332** | | **19** | **150** | | **13** | **76** | | **5** | | | | |
| B.III.1 | geomatyka | **30** | | 3 | 16 | 14 | | | | 30 | Zo | 3 | | | | | | | | | | | | | | | | | | | |
| B.III.2 | geodezyjne pomiary szczegółowe | **152** | | 14 | 16 | 14 | | | | 30 | E | 4 | | | | | | | | | | | | | | | | | | | |
| | | | | | 16 | | 30 | | | | | | 46 | E | 4 | | | | | | | | | | | | | | | | |
| | | | | | 30 | 16 | | | | | | | | | | 46 | E | 4 | | | | | | | | | | | | | |
| | | | | | 16 | | 14 | | | | | | | | | | | | 30 | Zo | 2 | | | | | | | | | | |
| | ćwiczenia terenowe z geod. pomiarów szcz. | **60** | | 2 | | | 60 | | | | | | 30 | Zo | 1 | | | | 30 | Zo | 1 | | | | | | | | | | |
| B.III.3 | geodezja podstawowa i astronomia geod. | **90** | | 7 | 16 | 14 | | | | | | | 30 | Zo | 2 | | | | | | | | | | | | | | | | |
| | | | | | 14 | 16 | | | | | | | | | | 30 | Zo | 3 | | | | | | | | | | | | | |
| | | | | | 16 | 14 | | | | | | | | | | | | | 30 | E | 2 | | | | | | | | | | |
| | ćwiczenia terenowe z geodezji podstawow. | **60** | | 2 | | | 60 | | | | | | | | | | | | 60 | Zo | 2 | | | | | | | | | | |
| B.III.4 | geodezja inżynieryjna | **76** | | 6 | 14 | 16 | | | | | | | | | | | | | | | | 30 | Zo | 3 | | | | | | | |
| | | | | | 16 | | 14 | 16 | | | | | | | | | | | | | | | | | 46 | ZoP | 3 | | | | |
| B.III.5 | geodezja satelitarna | **46** | | 3 | 16 | | | | | | | | | | | 16 | Zo | 1 | | | | | | | | | | | | | WIG |
| | | | | | 18 | | 12 | | | | | | | | | | | | 30 | E | 2 | | | | | | | | | | |
| | ćwiczenia terenowe z geodezji satelitarnej | **30** | | 2 | | | 30 | | | | | | | | | | | | | | | | | | 30 | Zo | 2 | | | | |
| B.III.6 | rachunek wyrównawczy | **90** | | 8 | 14 | 16 | | | | | | | 30 | E | 3 | | | | | | | | | | | | | | | | |
| | | | | | 14 | 16 | | | | | | | | | | 30 | Zo | 3 | | | | | | | | | | | | | |
| | | | | | 18 | | 12 | | | | | | | | | | | | 30 | E | 2 | | | | | | | | | | |
| B.III.7 | fotogrametria i teledetekcja | **106** | | 8 | 16 | | 14 | | | | | | | | | 30 | Zo | 3 | | | | | | | | | | | | | |
| | | | | | 16 | | 14 | 16 | | | | | | | | | | | 46 | ZoP | 2 | | | | | | | | | | |
| | | | | | 16 | | 14 | | | | | | | | | | | | | | | 30 | E | 3 | | | | | | | |
| B.III.8 | kartografia | **46** | | 4 | 18 | | 12 | 16 | | | | | | | | | | | 46 | ZoP | 4 | | | | | | | | | | |
| B.III.9 | systemy informacji przestrzennej | **76** | | 5 | 18 | | 12 | | | | | | | | | | | | 30 | E | 2 | | | | | | | | | | |
| | | | | | 18 | | 12 | 16 | | | | | | | | | | | | | | 46 | ZoP | 3 | | | | | | | |
| B.III.10 | kataster i gospodarka nieruchomościami | **44** | | 4 | 18 | 12 | | 14 | | | | | | | | | | | | | | 44 | Zo | 4 | | | | | | | |
| **C. Moduł specjalistyczny** | | **734** | | **61** | **206** | **16** | **288** | **124** | **100** | | | | | | | **108** | | **4** | **92** | | **6** | **208** | | **20** | **266** | | **25** | **60** | | **6** | |
| C.1 | Numeryczne metody opracowań geodezyjnych | **60** | | 6 | 14 | 16 | | | | | | | | | | | | | 30 | Zo | 3 | | | | | | | | | | |
| | | | | | 16 | | 14 | | | | | | | | | | | | | | | 30 | Zo | 3 | | | | | | | |
| C.2 | Przetwarzanie obrazów | **60** | | 5 | 14 | | 16 | 30 | | | | | | | | | | | | | | 60 | EP | 5 | | | | | | | |
| C.3 | Ćwiczenia terenowe z fotogrametrii i teledetekcji | **60** | | 6 | | | 60 | | | | | | | | | | | | | | | | | | 60 | Zo | 6 | | | | |
| C.4 | Integracja geodanych w systemach GIS | **42** | | 4 | 14 | | 14 | 14 | | | | | | | | | | | | | | 42 | ZoP | 4 | | | | | | | |
| C.5 | Topografia | **30** | | 1 | 16 | | 14 | | | | | | | | | 30 | Zo | 1 | | | | | | | | | | | | | |
| C.6 | Skanowanie laserowe | **46** | | 5 | 16 | | 14 | 16 | | | | | | | | | | | | | | | | | 46 | ZoP | 5 | | | | |
| C.7 | Kartograficzne opracowania specjalne | **46** | | 4 | 14 | | 16 | 16 | | | | | | | | | | | | | | 46 | ZoP | 4 | | | | | | | WIG |
| C.8 | Rozpoznanie obrazowe | **92** | | 10 | 16 | | 16 | | | | | | | | | | | | | | | | | | 32 | Zo | 4 | | | | |
| | | | | | 14 | | 30 | 16 | | | | | | | | | | | | | | | | | | | | 60 | EP | 6 | |
| C.9 | Podstawy interpretacji zobrazowań | **140** | | 6 | 14 | | 16 | 16 | 32 | | | | | | | 78 | ZoP | 3 | | | | | | | | | | | | | |
| | | | | | 14 | | 16 | | 32 | | | | | | | | | | 62 | Zo | 3 | | | | | | | | | | |
| C.10 | Fotografia | **94** | | 9 | 14 | | 16 | | | | | | | | | | | | | | | 30 | Zo | 4 | | | | | | | |
| | | | | | 14 | | 16 | 16 | **18** | | | | | | | | | | | | | | | | 64 | EP | 5 | | | | |
| C.11 | Pozyskiwanie obrazów wielo i hiperspektralnych | **64** | | 5 | 16 | | 30 | | 18 | | | | | | | | | | | | | | | | 64 | E | 5 | | | | |
| **D Praca dyplomowa/projekt inżynierski** | | **47** | | **25** | | | | **15** | **32** | | | | | | | | | | | | | | | | **16** | | **5** | **31** | | **20** | |
| D.1 | seminaria dyplomowe | **32** | | 10 | | | | | 32 | | | | | | | | | | | | | | | | 16 | Zo | 5 | 16 | Zo | 5 | WIG |
| D.2 | praca dyplomowa | **15** | | 15 | | | | 15 | | | | | | | | | | | | | | | | | | | | 15 | EP | 15 | |
| **ogółem godzin / pkt. ECTS** | | **3607** | | **210** | **1221** | **1313** | **720** | **221** | **132** | **485** | | **29** | **629** | | **27** | **563** | | **30** | **650** | | **30** | **530** | | **33** | **505** | | **35** | **245** | | **26** | |
| | | | | | | | | | **egzamin - E** | 2 | | | 4 | | | 4 | | | 4 | | | 3 | | | 2 | | | 2 | | | |
| | | | | | | | | | **zal.z oceną - Zo** | 15 | | | 17 | | | 14 | | | 19 | | | 12 | | | 12 | | | 5 | | | |
| | **rodzaje i liczba rygorów w semestrze:** | | | | | | | | **zal - Z** | 2 | | | | | | 2 | | | | | | 2 | | | | | | 1 | | | |
| | | | | | | | | | **projekt - P** | | | | | | | 1 | | | 2 | | | 4 | | | 3 | | | 2 | | | |

| **Praktyki zawodowe** | **liczba tygodni/godzin** | **termin realizacji** | **Uwagi** |
|---|---|---|---|
| **Praktyka kierunkowa** | **2** | po 4 semestrze | |
| **Praktyka specjalsityczna** | **2** | po 6 semestrze | |
| **Szkolenie specjalistyczne w Bazie Lotniczej - DB110** | **4** | po 4 semestrze | |
| **Szkolenie specjalistyczne w Bazie Lotniczej - BSL** | **4** | po 6 semestrze | |

Plan studiów uchwalony przez Radę Wydziału Inżynierii Lądowej i Geodezji w dniu 25.09.2014 (Uchwała nr 3/09/2014)

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