**Erasmus Course Offer 2025 - 2026 Institute of Computer Science** (F) – winter semester, starts in October

**Erasmus+ Coordinator’s name: prof. Renata Modzelewska-Łagodzin, e-mail address: renata.modzelewska-lagodzin@uws.edu.pl**

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| **Course Title in Polish** | **Course Title in English** | **Cycle of studies** | **Field of study** | **Lecture hours****Duration** | **Class hours****Duration** | **Lab hours****Duration** | **ECTS credits** | **Lecturer’s name** | **Lecturer’s e-mail address** | **Prerequisites** |
| Matematyka I | Mathematics I | I st.(inż.)Sem. 1(F) | Inf | 30 | 30 |  | 5 | dr B. Medak | beata.medak (at)uws.edu.pl |  |
| Matematyka II | Mathematics II | I st.(inż.)Sem. 1(F) | Inf | 15 | 24 |  | 4 | dr Sergiusz Kęska | sergiusz.keska (at)uws.edu.pl |  |
| Podstawy elektroniki | Basis of electronics | I st.(inż.)Sem. 1(F) | Inf | 15 |  | 30 | 4 | prof. R. Modzelewska-Łagodzin | renata.modzelewska-lagodzin(at)uws.edu.pl |  |
| Fizyka dla informatyków | Physics for computer scientists | I st. inf (inż.)Sem. 1(F) | Inf | 15 |  | 30 | 4 | prof. A. Gil-Świderska | agnieszka.gil-swiderska(at)ws.edu.pl |  |
| Podstawy programowania | Programming fundamentals | I st.(inż.)Sem. 1(F) | Inf | 30 |  | 30 | 5 | dr M. Barański | miroslaw.baranski.(at)uws.edu.pl |  |
| Architektura systemów komputerowych | Computer System Architecture | I st.(inż.)Sem. 1(F) | Inf | 21 |  | 24 | 4 | prof. S. Ambroszkiewicz | stanislaw.ambroszkiewicz@uws.edu.pl | the ability to think algorithmically |
| Laboratorium z programowania | Laboratory with programming | I st.(inż.)Sem. 1(F) | Inf | 0 |  | 30 | 3 | dr M. Barański | miroslaw.baranski(at)uws.edu.pl |  |
| Język angielski II | English II | I st. inf (inż.)Sem. 3(F) | Inf |  |  | 60 | 4 | mgr J. Madej | joanna.**madej**-borychowska(at)uws.edu.pl |  |
| Algorytmy i złożoność | Algorithms and Complexity | I st. inf (inż.)Sem. 3(F) | Inf | 30 |  | 30 | 4 | Dr Artur Niewiadomski | artur.niewiadomski@uws.edu.pl | * basic: object-oriented programming
* more than basic: Java or C# or C++
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| Sieci komputerowe | computer networks | I st. inf (inż.)Sem. 3(F) | Inf | 30 |  | 30 | 4 | Prof. S. Ambroszkiewicz | stanislaw.ambroszkiewicz@uws.edu.pl | Basic knowledge of programming in Java |
| Bazy danych | Database | I st. inf (inż.)Sem. 3(F) | Inf | 30 |  | 30 | 5 | Dr Artur Niewiadomski | artur.niewiadomski @uws.edu.pl | Basic knowledge of programming. |
| Programowanie niskopoziomowe | Low level programming | I st. inf (inż.)Sem. 3(F) | Inf |  | 21 | 24 | 3 | Dr Andrzej Salamończyk | andrzej.salamonczyk@uws.edu.pl |  |
| Wybrane paradygmaty programowania | Chosen programming paradigms | I st. inf (inż.)Sem. 3(F) | Inf |  | 21 | 24 | 4 | Dr Artur Niewiadomski | artur.niewiadomski@uws.edu.pl | basic: logic, mathematics,programming |
| Grafika komputerowa i wizualizacja | Computer graphics and visualization | I st. inf (inż.)Sem. 3(F) | Inf |  | 21 | 24 | 3 | Dr M. Barański | miroslaw.baranski.(at)uws.edu.pl |  |
| Wybrane zastosowania języka Python | Selected applications of the Python language | I st. inf (inż.)Sem. 3(F) | Inf |  | 21 | 24 | 4 | Dr Artur Niewiadomski | artur.niewiadomski@uws.edu.pl | basic: logic, mathematics,programming |
| Platformy programowania | Programing platforms | I st. inf (inż.)Sem. 5(F) | Inf |  | 21 | 24 | 3 | dr Grzegorz Terlikowski | grzegorz.terlikowski@uws.edu.pl | Knowledge of the basics of web technologies and protocols (http, url, html5, CSS), knowledge of the basics of HTML5 javascript and java. |
| Sztuczna inteligencja | Artificial Intelligence | I st. inf (inż.)Sem. 5(F) | Inf | 30 |  | 30 | 4 | dr hab. inż. Jerzy Tchórzewski, prof. uczelni - lectures laboratories,mgr inż. Dariusz Ruciński - laboratories | Jerzy.Tchorzewski@uws.edu.plDariusz.Rucinski@uws.edu.pl | * Knowledge of the basics of mathematical logic, propositional calculus, predicate calculus, algorithms and complexity.
* Knowledge of the basics of declarative programming, including the Prolog language and programming in artificial intelligence languages, such as Python
* 3. Basics of algorithms, heuristic methods, modeling, simulation, etc.
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| Komunikacja przetwarzania w chmurze | Cloud computing communication | I st. inf (inż.)Sem. 5(F) | Inf | 21 |  | 24 | 4 | Dariusz MIkułowski | dariusz.mikulowski@uws.edu.pl | Knowledge of the basics of website operation, knowledge of Microsoft applications and the Windows operating system |
| Zaawansowane systemy grafiki komputerowej | Advanced computer graphics systems | I st. inf (inż.)Sem. 7(F) | Inf |  | 30 | 45 | 6 | Dr Andrzej Salamończyk | andrzej.salamonczyk@uws.edu.pl |  |