

## Course syllabus for ERASMUS+ incoming students

| Course Title                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| <b>Computer Networks and Infrastructure</b>                                                                                                                                                                                                                                                                                                                                                                                                             |                                  |
| Academic Teacher                                                                                                                                                                                                                                                                                                                                                                                                                                        | mgr inż. Przemysław Grobelny     |
| E-mail                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Przemyslaw.grobelny@ansleszno.pl |
| ECTS credits                                                                                                                                                                                                                                                                                                                                                                                                                                            | 5                                |
| Number of hours                                                                                                                                                                                                                                                                                                                                                                                                                                         | 120                              |
| Course code                                                                                                                                                                                                                                                                                                                                                                                                                                             | INT-IPI-CNI-26                   |
| Course description                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                  |
| <p>The course provides fundamental knowledge of computer networks, including OSI and TCP/IP models, network architectures, active and passive network devices, structured cabling, and wireless networks. It introduces basic principles of network security and configuration. Students develop the ability to identify network requirements, select appropriate solutions, and design basic network infrastructures according to specified needs.</p> |                                  |
| Learning outcomes - course content                                                                                                                                                                                                                                                                                                                                                                                                                      |                                  |
| <p>Network models (OSI, TCP/IP)<br/>         Network architectures<br/>         Network devices (active and passive)<br/>         Structured cabling<br/>         Wireless networks<br/>         Network security<br/>         Basic configuration<br/>         Network design and needs analysis</p>                                                                                                                                                   |                                  |
| Student workload (self-study description)                                                                                                                                                                                                                                                                                                                                                                                                               |                                  |
| <p>Preparation for classes – 20 hours<br/>         Case study analysis – 20 hours<br/>         Network design – 30 hours<br/>         Presentation – 10 hours<br/>         Preparation for the final exam – 20 hours</p>                                                                                                                                                                                                                                |                                  |
| Literature                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                  |
| <p>Kurose J., Ross K., Computer Networking: A Top-Down Approach<br/>         Tanenbaum A., Computer Networks<br/>         Cisco CCNA materials</p>                                                                                                                                                                                                                                                                                                      |                                  |



Dye M., Podstawy sieci komputerowych