

|    |                                |                          |
|----|--------------------------------|--------------------------|
| 1. | <b>Field of study</b>          | <b>English Philology</b> |
| 2. | Academic year of entry         | 2018/2019 (winter term)  |
| 3. | Level of qualifications/degree | first-cycle studies      |
| 4. | Degree profile                 | general academic         |
| 5. | Mode of study                  | full-time                |

**Module:** Computer science: Module 3, Computer Networks and network applications

**Module code:** 02-FA-NI-S1-SKAS-4

**1. Number of the ECTS credits:** 2

| 2. Learning outcomes of the module |   |                                    |                                 |
|------------------------------------|---|------------------------------------|---------------------------------|
| code                               | description   | learning outcomes of the programme | level of competence (scale 1-5) |
| NI-S1-SKAS-4_K1                    | Understands the need to keep track of the development of web technologies and appreciates the importance of lifelong learning | FA1_K01                            | 1                               |
| NI-S1-SKAS-4_U1                    | Is able to set up a simple local network with internet access based on typical hardware and media                             | FAN1_U08<br>FAN1_U11<br>FAN1_U17   | 1<br>1<br>1                     |
| NI-S1-SKAS-4_U2                    | Has basic network programming skills  | FAN1_U08<br>FAN1_U11<br>FAN1_U17   | 1<br>1<br>1                     |
| NI-S1-SKAS-4_U3                    | Is able to assess threats in networks and apply suitable solutions  | FAN1_U08<br>FAN1_U11<br>FAN1_U17   | 1<br>1<br>1                     |
| NI-S1-SKAS-4_W1                    | knows referential models of networks and understands the value of standards in the development of network technologies        | FA1_W15                            | 1                               |
| NI-S1-SKAS-4_W2                    | knows basic protocols, services and web apps  | FA1_W15                            | 1                               |
| NI-S1-SKAS-4_W3                    | knows and understands the concept of communication channels, knows typical methods of data transmission                       | FA1_W15                            | 1                               |
| NI-S1-SKAS-4_W4                    | has basic knowledge of threats in typical network environment and knows how to prevent them                                   | FA1_W15                            | 1                               |

### 3. Module description

|                      |   |
|----------------------|---|
| <b>Description</b>   | Introduction: using networks, network hardware and software, web services and protocols, layer organization of networks, ISO OSI referential model, web standards. Communication in physical layer: theoretical fundamentals, communication media, signals transmission, wired technologies (optical fibers, electrical wires), radio connection, wireless connection, global area network infrastructure. Connection layer: the abstract character of a connection, datagrams (frames), packets, protocols, exception handling, managing access, bridging and switching, chosen technologies |
| <b>Prerequisites</b> |   |

### 4. Assessment of the learning outcomes of the module

| code             | type       | description   | learning outcomes of the module  |
|------------------|------------|---|--|
| NI-S1-SKAS-4_w_1 | zaliczenie | test or written assignment which covers chosen elements of the material covered during lectures | NI-S1-SKAS-4_K1, NI-S1-SKAS-4_U1, NI-S1-SKAS-4_U2, NI-S1-SKAS-4_U3, NI-S1-SKAS-4_W1, NI-S1-SKAS-4_W2, NI-S1-SKAS-4_W3, NI-S1-SKAS-4_W4 |

### 5. Forms of teaching

| code              | form of teaching |  |                 | required hours of student's own work                               |                 | assessment of the learning outcomes of the module |
|-------------------|------------------|--|-----------------|--|-----------------|---|
|                   | type             | description (including teaching methods)                             | number of hours | description  | number of hours |   |
| NI-S1-SKAS-4_fs_1 | lecture          | lectures with multimedia presentations and demonstration (if needed) | 30              | Self-study including curricular and extra-curricular reading lists | 30              | NI-S1-SKAS-4_w_1                                  |