| Course title            | Information Technology  |
|-------------------------|---|
| Course title            | Information Technology  |
| Course code             | IMTBIT1   |
| Module coordinator      | Miriam Heinrich   |
| Lecturer                | Prof. Dr. I. Rogina   |
| Level of course         | Bachelor  |
| Recommended             | Computer Science A and B  |
| prerequisites           |   |
| Type of course          | Lecture   |
| Weekly lecture hours    | 2   |
| (SWS)                   |   |
| ECTS credits            | 2.5   |
| Workload                | In total 60 h, 30h course attendance, 30 h self-study   |
|                         |   |
| Assessment (grading;    | graded  |
| pass/fail)              |   |
| Regular cycle           | Each semester   |
| Language of instruction | English   |
| Contents:               | Computer networks (types of computer networking,  |
|                         | introduction to internet communication, types of communication  |
|                         | protocols, OSI model (Open Systems Interconnection) Data  |
|                         | protection and security (types of data worthy of protection,  |
|                         | security options via defences against internet attacks,   |
|                         | prevention of manipulation and wiretapping, cryptography)   |
|                         | Mobile IT (problems and challenges of mobile communication  |
|                         | and data processing, mobile communication protocols, mobile   |
|                         | services)   |
| Learning outcome        | After having successfully completed the course, the students  |
| (competencies):         | should  |
| (                       | understand the concept of information   |
|                         | <ul> <li>understand and be able to judge different ways of</li> </ul>   |
|                         | coding information  |
|                         | <ul> <li>understand the most important methods and protocols</li> </ul>   |
|                         | of technical communication  |
|                         | <ul> <li>understand and be able to judge methods of organizing</li> </ul>   |
|                         | <ul> <li>understand and be able to judge methods of organizing<br/>and comparing data on digital systems</li> </ul> |
| Teaching methods        |   |
|                         | ☐Exercises ☐Simulation  |
|                         | □Video feedback □Others:  |
| Assessment methods      | Written exam  |
| Recommended reading     |   |
| Additional information  |   |
| Recognition of credits  |   |