# Cryptography and Network Security

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| **Name**  | **Cryptography and Network Security** |
| Education | The course is offered as an elective for the students |
| Purpose | The aim of this course is to give the student insight in theory, principles, and practice of cryptography and Network security |
| Language | English |
| Exam | Oral exam with synopsis |
| Objectives knowledge | The student has knowledge about:* Computer and network security concepts
* Symmetric and Asymmetric Cryptography concepts
* Confidentiality, integrity and availability
* Block cyphers and the Data encryption
* Classical encryption techniques
* Advanced Encryption Standard
* Public Key Cryptography
* Message authentication
* Hash and MAC algorithm
* Digital Signatures
* Electronic Mail Security
* IP Security
* Web Security
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| Skills | The student can:1. Use Symmetric Encryption techniques
2. Use Asymmetric Encryption techniques
3. Can use IPSec
4. Can create Secure Virtual Private Network
5. Create, assign and manage digital certificates
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| Competences | The student can:1. Participate as a security professional in designing a secure IT environment.
2. Act as a security consultant
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