

Computer Science BSc 2018 (in English, for Foreign students)

| Subject Code | Subject | Lecture (L) | Practice (Pr) | Laboratory | Consultation | Form of assessment | Credit | Semester | | | | | | | | |
|----------------|--|-------------|---------------|------------|--------------|--------------------|--------|----------------------|---------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--|
| | | | | | | | | Recommended Semester | Prerequisite | 1st Semester | 2nd Semester | 3rd Semester | 4th Semester | 5th Semester | 6th Semester | |
| IP-18fSZGREG | Computer systems | 2 | 0 | 2 | 1 | XCP | 5 | 1 | | | 2+0+2+1 | | | | | |
| IP-18fPROGEG | Programming | 2 | 0 | 3 | 1 | XCP | 6 | 1 | | | 2+0+3+1 | | | | | |
| IP-18fIMPROGEG | Imperative programming | 2 | 0 | 3 | 0 | XCP | 5 | 1 | | | 2+0+3+0 | | | | | |
| IP-18fFUNPEG | Functional programming | 2 | 0 | 2 | 1 | XE | 5 | 1 | | | 2+0+2+1 | | | | | |
| IP-18fMATAG | Basic Mathematics | 0 | 4 | 0 | 0 | CP | 4 | 1 | | | 0+4+0+0 | | | | | |
| IP-18fTMKG | Learning Methodology | 0 | 1 | 0 | 0 | P | 1 | 1 | | | 0+1+0+0 | | | | | |
| IP-18fIVMEG | Business fundamentals | 1 | 2 | 0 | 0 | XP | 3 | 1 | | | 1+2+0+0 | | | | | |
| IP-18fPNYEG | Programming languages | 2 | 0 | 2 | 2 | XCP | 6 | 2 | IP-18fIMPROGEG | | | 2+0+2+2 | | | | |
| IP-18fOEPROGEG | Object-oriented programming | 2 | 0 | 3 | 1 | XCP | 6 | 2 | IP-18fPROGEG | | | 2+0+3+1 | | | | |
| IP-18fWF1EG | Web development | 1 | 0 | 2 | 0 | XCP | 3 | 2 | IP-18fSZGREG (weak) | | | 1+0+2+0 | | | | |
| IP-18fAA1E | Algorithms and data structures I | 2 | 0 | 0 | 0 | E | 2 | 2 | IP-18fAA1G (weak) | | | 2+0+0+0 | | | | |
| IP-18fAA1G | Algorithms and data structures I | 0 | 2 | 0 | 1 | P | 3 | 2 | IP-18fMATAG, IP-18fPROGEG | | | 0+2+0+1 | | | | |
| IP-18fDM1E | Discrete mathematics I | 2 | 0 | 0 | 0 | E | 2 | 2 | IP-18fDM1G (weak) | | | 2+0+0+0 | | | | |

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|---------------|---|---|---|---|---|-----|---|---|--------------------|--|---------|---------|----------|--|--|
| IP-18fDM1G | Discrete mathematics I | 0 | 2 | 0 | 1 | CP | 3 | 2 | IP-18fMATAG | | 0+2+0+1 | | | | |
| IP-18fAN1E | Analysis I | 2 | 0 | 0 | 0 | E | 2 | 2 | IP-18fAN1G (weak) | | 2+0+0+0 | | | | |
| IP-18fAN1G | Analysis I | 0 | 2 | 0 | 1 | P | 3 | 2 | IP-18fMATAG | | 0+2+0+1 | | | | |
| IP-18fAA2E | Algorithms and data structures II | 2 | 0 | 0 | 0 | E | 2 | 3 | IP-18fAA2G (weak) | | | 2+0+0+0 | | | |
| IP-18fAA2G | Algorithms and data structures II | 0 | 2 | 0 | 1 | P | 3 | 3 | IP-18fAA1E | | | 0+2+0+1 | | | |
| IP-18fWPEG | Web programming | 1 | 0 | 2 | 1 | XCP | 4 | 3 | IP-18fWF1EG | | | 1+0+2+1 | | | |
| IP-18fPROGTEG | Programming technology | 2 | 0 | 2 | 1 | XCP | 5 | 3 | IP-18fOEPROGEG | | | 2+0+2+1 | | | |
| IP-18fAN2E | Analysis II | 2 | 0 | 0 | 0 | E | 2 | 3 | IP-18fAN2G (weak) | | | 2+0+0+0 | | | |
| IP-18fAN2G | Analysis II | 0 | 2 | 0 | 1 | P | 3 | 3 | IP-18fAN1E | | | 0+2+0+1 | | | |
| IP-18fDMAG | Application of discrete models | 0 | 0 | 2 | 1 | P | 3 | 3 | IP-18fDM1E | | | 0+0+2+1 | | | |
| IP-18fOPREG | Operating systems | 1 | 0 | 1 | 1 | XP | 3 | 4 | IP-18fSZGREG | | | | 1++0+1+1 | | |
| IP-18fAB1E | Databases I | 2 | 0 | 0 | 0 | E | 2 | 4 | IP-18fAB1G (weak) | | | | 2+0+0+0 | | |
| IP-18fAB1G | Databases I | 0 | 0 | 2 | 0 | P | 2 | 4 | IP-18fAA1E | | | | 0+0+2+0 | | |
| IP-18fSZTE | Software technology*** | 2 | 0 | 0 | 0 | E | 2 | 4 | IP-18fSZTG (weak) | | | | 2+0+0+0 | | |
| IP-18fSZTG | Software technology*** | 0 | 0 | 2 | 1 | P | 3 | 4 | IP-18fPROGTEG | | | | 0+0+2+1 | | |
| IP-18fSZTEG | Software technology | 2 | 0 | 2 | 1 | XCP | 5 | 4 | IP-18fPROGTEG | | | | 2+0+2+1 | | |
| IP-18fSZA1E | Fundamentals of theory of computation I | 2 | 0 | 0 | 0 | E | 2 | 4 | IP-18fSZA1G (weak) | | | | 2+0+0+0 | | |
| IP-18fSZA1G | Fundamentals of theory of computation I | 0 | 2 | 0 | 1 | P | 3 | 4 | IP-18fDM1E | | | | 0+2+0+1 | | |
| IP-18fNM1E | Numerical methods | 2 | 0 | 0 | 0 | E | 2 | 4 | IP-18fNM1G (weak) | | | | 2+0+0+0 | | |
| IP-18fNM1G | Numerical methods | 0 | 2 | 0 | 1 | P | 3 | 4 | IP-18fAN2E | | | | 0+2+0+1 | | |

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|----------------|--|---|---|---|---|-----|---|------------|---------------------|--|-----------|-----------|-----------|-----------|-----------|
| IP-18fKPROGEG | Concurrent programming | 1 | 0 | 1 | 1 | XCP | 3 | 5 | IP-18fPNYEG | | | | | 1+0+1+1 | |
| IP-18fTKHE | Telecommunication networks | 2 | 0 | 0 | 0 | E | 2 | 5 | IP-18fTKHG (weak) | | | | | 2+0+0+0 | |
| IP-18fTKHG | Telecommunication networks | | 0 | 2 | 1 | P | 3 | 5 | IP-18fOEPROGEG | | | | | 0+0+2+1 | |
| IP-18fMIAE | Artificial intelligence | 2 | 0 | 0 | 1 | E | 3 | 5 | IP-18fAA2E (weak) | | | | | 2+0+0+1 | |
| IP-18fAB2E | Databases II | 2 | 0 | 0 | 0 | E | 2 | 5 | IP-18fAB2G | | | | | 2+0+0+0 | |
| IP-18fAB2G | Databases II | 0 | 0 | 2 | 1 | P | 3 | 5 | IP-18fAB1E | | | | | 0+0+2+1 | |
| IP-18fSZA2E | Fundamentals of theory of computation II | 2 | 0 | 0 | 0 | E | 2 | 5 | IP-18fSZA2G (weak) | | | | | 2+0+0+0 | |
| IP-18fSZA2G | Fundamentals of theory of computation II | 0 | 2 | 0 | 1 | P | 3 | 5 | IP-18fSZA1E | | | | | 0+2+0+1 | |
| IP-18fVSZG | Probability and statistics | 0 | 0 | 2 | 1 | P | 3 | 5 | IP-18fAN2E | | | | | 0+0+2+1 | |
| | Compulsories | | | | | | | 127 | | | 29 | 30 | 22 | 22 | 24 |
| | Compulsory Electives: | | | | | | | | | | | | | | |
| IP-18fKVGPUPEG | GPU programming**** | 1 | 0 | 2 | 0 | XP | 3 | 3,4,5 | IP-18fMATAG | | | 1+0+2+0 | 1+0+2+0 | 1+0+2+0 | |
| IP-18fKVKRBE | Cryptography and security | 2 | 0 | 0 | 0 | E | 2 | 4,6 | IP-18fKVKRBG (weak) | | | | 2+0+0+0 | 2+0+0+0 | |
| IP-18fKVKRBG | Cryptography and security | 0 | 0 | 2 | 1 | P | 3 | 4,6 | IP-18fDMAG | | | | 0+0+2+1 | 0+0+2+1 | |
| IP-18fKVBGTE | Introduction to machine learning | 2 | 0 | 0 | 1 | E | 3 | 3 | IP-18fMATAG | | | 2+0+0+1 | | | |
| IP-18fKVPREE | Programming theory | 2 | 0 | 0 | 0 | E | 2 | 3,5 | IP-18fKVFP (weak) | | | 2+0+0+0 | | 2+0+0+0 | |
| IP-18fKVPREG | Programming theory | 0 | 2 | 0 | 1 | P | 3 | 3,5 | IP-18fMATAG | | | 0+2+0+1 | | 0+2+0+1 | |
| IP-18KVPRJG | Tools of software projects | 0 | 2 | 0 | 1 | CP | 3 | 5 | IP-18fPNYEG | | | | | 0+2+0+1 | |
| IP-18fKVPE | Compilers | 2 | 0 | 0 | 1 | E | 3 | 5 | IP-18fKVFP (weak) | | | | | 2+0+0+1 | |
| IP-18fKVFP | Compilers | 0 | 0 | 2 | 0 | P | 2 | 5 | IP-18fOEPROGEG | | | | | 0+0+2+0 | |
| IP-18fKVADA | ADA | 2 | 0 | 2 | 1 | XP | 5 | 5,6 | IP-18fIMPROGEG | | | | | 2+0+2+1 | 2+0+2+1 |
| IP-18fKVPYEG | Python | 2 | 0 | 2 | 1 | XE | 5 | 3,4,5,6 | | | | 2+0+2+1 | 2+0+2+1 | 2+0+2+1 | 2+0+2+1 |

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|------------------|--|---|---|---|---|------------|-----|-------|-----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| IP-18fKVIADSE | Applied Data Science | 2 | 0 | 0 | 0 | <i>E</i> | 2 | 3,5 | | | | 2+0+0+0 | | 2+0+0+0 | |
| IP-24fKVSZKBIZTE | Cybersecurity basic | 2 | 0 | 0 | 2 | <i>E</i> | 4 | 2 | IP-18fWF1EG (weak) | | 2+0+0+2 | | | | |
| IP-24fKVSZGE | Computer graphics | 2 | 0 | 0 | 1 | <i>E</i> | 3 | 3,5 | IP-24fKVSZGG (weak) | | | 2+0+0+1 | | 2+0+0+1 | |
| IP-24fKVSZGG | Computer graphics | 0 | 0 | 2 | 1 | <i>P</i> | 3 | 3,5 | IP-18fMATAG, IP-18fIMPROGEG | | | 0+0+2+1 | | 0+0+2+1 | |
| IP-24fKVKHSZGG | Intermediate Computer Graphics | 0 | 0 | 2 | 1 | <i>P</i> | 3 | 4,6 | IP-24fKVSZGG | | | | 0+0+2+1 | | 0+0+2+1 |
| IP-24fKVNFAEG | Native cloud computing applications | 2 | 0 | 2 | 1 | <i>XE</i> | 5 | 4,5,6 | IP-18fKVPYEG | | | | 2+0+2+1 | 2+0+2+1 | 2+0+2+1 |
| IP-24fKVHWPEG | Advanced web programming | 2 | 0 | 2 | 1 | <i>XPG</i> | 5 | 4,6 | IP-18fWPEG | | | | 2+0+2+1 | | 2+0+2+2 |
| | Compulsory electives | | | | | | 23 | | | | | 9 | 0 | 6 | 8 |
| | Compulsories + compulsory electives | | | | | | 150 | | | 29 | 30 | 31 | 22 | 30 | 8 |
| | Electives | | | | | | 10 | | | | | | 8 | | 2 |
| IP-24fSZD | Thesis consultation | | | | | | 20 | | | | | | | | 20 |
| | Summa credit in semester | | | | | | | | | 29 | 30 | 31 | 30 | 30 | 30 |
| | Summa credit | | | | | | 180 | | | | | | | | |

*** Discontinued subject

P: form of assessment is practice grade

E: form of assessment is Exam

C: Practice with continuous assessment (at least 5 independent tests/assessments during the study period)

X: mixed subject (lecture + practice)

End of the subject code:

EG: Lecture + Practice course under the same subject code

E: Lecture

G: Practice