

Transilvania University of Braşov, Romania

Study program: Modern Technologies in Software Systems Engineering

Faculty: Mathematics and Computer Science
Study period: 2 years
Academic year structure: 2 semesters (14 weeks per semester)
Examination sessions (two): winter session (January/February)
summer session (June/July)

Courses per years (C= course; S = seminar; L = laboratory; P = project)

1st Year

| No. crt. | Course | Code | 1 st Semester | | | | | 2 nd Semester | | | | |
|----------|--|-------|--------------------------|---|---|---|------|--------------------------|---|---|---|------|
| | | | C | S | L | P | Cred | C | S | L | P | Cred |
| 01 | Arhitecture of Enterprise Software Systems. .NET Platform | ASSEN | 2 | - | 2 | | 8 | | | | | |
| 02 | Advanced Elements in WEB Applications Developing with PHP and My SQL | EAWPS | 2 | - | 2 | | 7 | | | | | |
| 03 | Distributed Programming Techniques | TEHPD | 2 | - | 2 | | 8 | | | | | |
| 04 | Mobile Devices Programming. Android Perspective. | PDMPA | 2 | - | 2 | | 7 | | | | | |
| 05 | Algorithms in Combinatorial Optimization | AOCOM | | | | | | 2 | 1 | 1 | | 8 |
| 06 | Advanced Elements in Software Systems Engineering | EAISS | | | | | | 2 | - | 2 | | 8 |
| 07 | Component oriented development | DOCOM | | | | | | 2 | - | 2 | | 7 |
| 07 | Aspect oriented development | DOASP | | | | | | 2 | - | 2 | | 7 |
| 07 | ORM technologies | TEORM | | | | | | 2 | - | 2 | | 7 |
| 07 | Software testing methods | METTS | | | | | | 2 | - | 2 | | 7 |
| 08 | Programming of mobile devices. Windows Mobile perspective | PDMPW | | | | | | 2 | - | 2 | | 7 |
| 08 | Big Data and Machine Learning | BDAML | | | | | | 2 | - | 2 | | 7 |

2nd Year

| No. crt. | Course | Code | 3 rd Semester | | | | | 4 th Semester | | | | |
|----------|---|-------|--------------------------|---|---|---|------|--------------------------|---|---|---|------|
| | | | C | S | L | P | Cred | C | S | L | P | Cred |
| 01 | Non-sequential functional programming | PROFU | 2 | - | 2 | - | 7 | | | | | |
| 02 | Advanced elements of computational graphics | EAGCO | 2 | - | 2 | - | 8 | | | | | |
| 03 | Management of computer networks | ARETC | 2 | - | 2 | - | 7 | | | | | |
| 03 | Security of IT systems | SESIT | 2 | - | 2 | - | 7 | | | | | |
| 04 | Grid computing | GRDCO | 2 | - | 2 | - | 8 | | | | | |
| 04 | Cloud computing | CLCOM | 2 | - | 2 | - | 8 | | | | | |
| 05 | Specialized practice | PRACT | | | | | | | | | 4 | 8 |
| 06 | Practice for dissertation writing | ELABD | | | | | | | | | 4 | 8 |
| 07 | Introduction to Natural Language Processing | INLP | | | | | | 2 | - | 2 | - | 7 |
| 08 | Image processing using intelligent algorithms | IPIA | | | | | | 2 | - | 2 | - | 7 |