

Transilvania University of Braşov, Romania

Study program: Building services

Faculty: Civil Engineering
 Study period: 4 years (bachelor);
 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 | Mathematical analysis I | AMP01 | 2 | 1 | | | 3 | | | | | |
| 02 | Linear Algebra, Analytic and Differential Geometry | ALGAD01 | 2 | 2 | | | 4 | | | | | |
| 03 | Computer programming | PC01 | 1 | | 2 | | 4 | | | | | |
| 04 | Descriptive Geometry | GD01 | 2 | 2 | | | 4 | | | | | |
| 05 | Mechanics | MECI01 | 2 | 2 | | | 5 | | | | | |
| 06 | Chemistry | CH01 | 2 | | 1 | | 3 | | | | | |
| 07 | Physics | FIZ01 | 2 | 1 | 1 | | 4 | | | | | |
| 08 | Physical education and sports I | EFZ01 | | 1 | | | 1 | | | | | |
| 09 | 01.English Language I 01.German Language I 01.French Language I 01.Spanish Language I | LS01 | 1 | 1 | | | 2 | | | | | |
| 10 | Mathematical analysis II | AMP02 | | | | | | 2 | 2 | | | 4 |
| 11 | Ecology and environment | ECI02 | | | | | | 2 | 1 | | | 4 |
| 12 | Topography | TOP02 | | | | | | 2 | | 2 | | 5 |
| 13 | Technical drawing I | DTCI02 | | | | | | | | 3 | | 4 |
| 14 | Strength of the materials | RMI02 | | | | | | 3 | 2 | | | 5 |
| 15 | Materials for installations | MI02 | | | | | | 3 | | 2 | | 5 |
| 16 | 02.English Language II 02.German Language II 02.French Language II 02.Spanish Language II | LS02 | | | | | | 1 | 1 | | | 2 |
| 17 | Physical education and sports II | EFZ02 | | | | | | | 1 | | | 1 |

2nd Year

| No. crt. | Course | Code | 3 rd Semester | | | | | 4 th Semester | | | | |
|----------|----------------------|-------|--------------------------|---|---|---|------|--------------------------|---|---|---|------|
| | | | C | S | L | P | Cred | C | S | L | P | Cred |
| 01 | Special mathematics | MS03 | 2 | 1 | | | 5 | | | | | |
| 02 | Thermotechnics I | TTI03 | 3 | 1 | 1 | | 5 | | | | | |
| 03 | Hydraulic services I | HI03 | 3 | 1 | 1 | | 5 | | | | | |
| 04 | Electrotechnics I | EIC03 | 3 | 2 | | | 5 | | | | | |

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| 05 | Infographics I | IGI03 | 2 | | 3 | | 4 | | | | | |
| 06 | English Language III German Language French Language III Spanish Language III | LS03 | 1 | 1 | | | 2 | | | | | |
| 07 | Physical education and sports III | EFZ03 | | 1 | | | 1 | | | | | |
| 08 | 01.Basics of architecture 01.Earthquake Engineering | ARH03 INGSEI03 | 1 | | | | 2 | | | | | |
| 09 | 02.Academic Writing 02.Academic Ethics and Integrity | SAC 03 EIAC 03 | 1 | | | | 2 | | | | | |
| 10 | Thermotechnics II | TTI04 | | | | | | 3 | 1 | 1 | | 6 |
| 11 | Hydraulic services II | HI04 | | | | | | 3 | 1 | 1 | | 6 |
| 12 | Electrotechnics II | EIC04 | | | | | | 3 | 2 | | | 6 |
| 13 | English Language IV German Language IV French Language IV Spanish Language IV | LS04 | | | | | | | 2 | | | 2 |
| 14 | Civil buildings | CONI04 | | | | | | 2 | | | 1 | 3 |
| 15 | Infographics II | IGI04 | | | | | | 2 | | 3 | | 3 |
| 16 | Physical education and sports IV | EFZ04 | | | | | | | 1 | | | 1 |
| 17 | Technological practice | PRAC04 | | | | | | | | | | 4 |

3rd Year

| No. crt. | Course | Code | 5 th Semester | | | | | 6 th Semester | | | | |
|----------|---|---------------|--------------------------|---|---|---|------|--------------------------|---|---|---|------|
| | | | C | S | L | P | Cred | C | S | L | P | Cred |
| 01 | Hydraulics systems | MAH05 | 2 | | 2 | | 5 | | | | | |
| 02 | Plumbing installations I | INSA05 | 3 | | | 2 | 5 | | | | | |
| 03 | Heating systems and equipments I | ININ05 | 3 | | | 2 | 5 | | | | | |
| 04 | Thermal Equipments | APT05 | 3 | | | 2 | 5 | | | | | |
| 05 | Computer-Aided Engineering Design | PAC05 | 1 | | 3 | | 3 | | | | | |
| 06 | General economy | EC05 | 1 | | | | 2 | | | | | |
| 07 | 01.Building thermotechnics 01.Elements of Building Physics | TC05 EFC05 | 2 | 2 | | | 5 | | | | | |
| 08 | Heating systems and equipments II | ININ06 | | | | | | 2 | | | | 3 |
| 09 | Heating systems and equipments II- Project | PININ06 | | | | | | | | | 2 | 2 |
| 10 | Plumbing installations II | INSA06 | | | | | | 2 | | | | 4 |
| 11 | Plumbing installations II - Project | PINSA06 | | | | | | | | | 2 | 2 |
| 12 | Air conditioning systems I | INVC06 | | | | | | 3 | | | 3 | 4 |
| 13 | Electrical circuits for buildings I | INEL06 | | | | | | 3 | | | 3 | 4 |
| 14 | Refrigeration Installations | INFR06 | | | | | | 2 | | | 2 | 4 |
| 15 | Unconventional sources of energy | SNE 06 | | | | | | 2 | 2 | | | 3 |
| 16 | Technological practice | PRA06 | | | | | | | | | | 4 |

th
4 Year

| No. crt. | Course | Code | 7 th Semester | | | | | 8 th Semester | | | | |
|----------|--|------------------|--------------------------|---|---|---|------|--------------------------|---|---|---|------|
| | | | C | S | L | P | Cred | C | S | L | P | Cred |
| 01 | Air conditioning systems II | INVC07 | 2 | | | | 4 | | | | | |
| 02 | Air conditioning systems II - Project | PINVC07 | | | | 3 | 2 | | | | | |
| 03 | Electrical circuits for buildings II | INEL07 | 2 | | | | 4 | | | | | |
| 04 | Electrical circuits for buildings II - Project | PINEL07 | | | | 2 | 2 | | | | | |
| 05 | Natural gas supply systems | SAG07 | 3 | | | 2 | 4 | | | | | |
| 06 | Building Automation Systems I | AI07 | 2 | 2 | | | 4 | | | | | |
| 07 | District Heating Systems | RT07 | 2 | | | 2 | 5 | | | | | |
| 08 | 01. Urban Hydraulic Systems 01. Water Management | INHIO7 GA07 | 2 | | | 2 | 5 | | | | | |
| 09 | Building Automation Systems II | AI08 | | | | | | 2 | 1 | | | 4 |
| 10 | Installation Technology and Assembly | TMI08 | | | | | | 2 | 2 | | | 4 |
| 11 | Management in buildings and buildings services | EI08 | | | | | | 2 | 2 | | | 3 |
| 12 | Bachelor's Thesis Preparation | PPD08 | | | | | | | | | | 5 |
| 13 | Diploma Project Practice | PD08 | | | | | | | | | | 2 |
| 14 | 02. Heat pumps 02. Installations for Using Unconventional Energy Forms | PC08 IPUFNE08 | | | | | | 2 | | 1 | | 4 |
| 15 | 03. Marketing 03. Management | MAR08 GEF08 | | | | | | 1 | | | | 2 |
| 16 | 04. Quality in building services 04. Project Management | ACI08 PM08 | | | | | | 2 | 2 | | | 3 |
| 17 | 05. Measurements in Installations 05. Domotics | MSI08 DOM08 | | | | | | 2 | 2 | | | 3 |