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| --- | --- |
| **Faculty** | **Engineering in Foreign Languages** |
| **Field** | **Civil engineering** |
| **Specialization** | **Civil engineering** |
| **Study period** | **4 years** |
| **Education form** | **Civil Engineer**  **Full-time instruction in ENGLISH** |
| **Code** | **U02.07.ICV.IZ.L16** |

**STUDY PROGRAMME**

Notations:

C- course

S- seminar

L- laboratory

P- project

IS- individual study

TH- total hours per week

CR- ECTS credits

EC – elective course

E- exam

Co- colloquy

P/F- Passed / Failed

Course code:

1÷8 – semester number

DF – fundamental course

DD – course within the domain

DC – complementary course

DS – specialty course

PP – psycho-pedagogic training course (only in Romanian)

OB – compulsory course

OP – elective course (is active only the one selected by the majority of students)

FC – facultative course (active only if requested by a sufficient number of students)

1÷66 – course number

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **1st Year (2016-17)** | | | | | | | | | | | | | | | | | | | | |
| **1st Semester – 30 ECTS (14 weeks)** | | | | | | | | | | | | | | | | | | | | |
| **No.** | **Name of the course** | | **Course Code** | | **C** | | **S** | | **L** | | **P** | | **IS** | | **TH** | | **CR** | | **Exam form** | |
| 1 | Linear algebra and Analytical geometry | | 1.DF.OB01 | | 3 | | 2 | |  | |  | | 2 | | 7 | | 5 | | E | |
| 2 | Analysis I | | 1.DF.OB02 | | 2 | | 2 | |  | |  | | 2 | | 6 | | 5 | | E | |
| 3 | Descriptive geometry | | 1.DF.OB03 | | 2 | | 2 | |  | |  | | 2 | | 6 | | 5 | | E | |
| 4 | Chemistry | | 1.DF.OB04 | | 2 | |  | | 1 | |  | | 2 | | 5 | | 4 | | E | |
| 5 | Computer science | | 1.DF.OB05 | | 1 | |  | | 2 | |  | | 2 | | 5 | | 4 | | Co | |
| 6 | Surveying | | 1.DD.OB06 | | 2 | |  | | 2 | |  | | 2 | | 5 | | 5 | | E | |
| 7 | Humanity course I | | 1.DC.OB07 | | 1 | | 1 | |  | |  | |  | | 2 | | 1 | | Co | |
| 8 | Foreign language I | | 1.DC.OB08 | |  | | 2 | |  | |  | |  | | 2 | | 1 | | Co | |
| 9 | Physical education | | 1.DC.OB09 | |  | | 2 | |  | |  | |  | | 2 | |  | |  | |
| **TOTAL Contact hours/week =28** | | | | | **13** | | **11** | | **4** | | **0** | | **12** | | **40** | | **30** | | **5E+3Co** | |
| 10 | Romanian language for foreign students I | | 1.DC.FC01 | |  | | 2 | |  | |  | | 1 | | 3 | | 2 | | Co | |
| 11 | Foreign language-supplement I | | 1.DC.FC02 | |  | | 2 | |  | |  | | 1 | | 3 | | 2 | | Co | |
| 12 | Mathematics- supplement I | | 1.DF.FC03 | |  | | 3 | |  | |  | | 1 | | 4 | | 3 | | Co | |
| 13 | Psihologia educatiei | | 1.PP.FC04 | | 2 | | 2 | |  | |  | | 1 | | 5 | | 5 | | E | |
| **2nd Semester – 30 ECTS (14 weeks + 2 weeks)** | | | | | | |  | |  | |  | |  | |  | |  | |  | |
| 1 | Differential and with partial derivates equations | | 2.DF.OB10 | | 2 | | 2 | |  | |  | | 2 | | 6 | | 5 | | E | |
| 2 | Analysis II | | 2.DF.OB11 | | 2 | | 2 | |  | |  | | 2 | | 6 | | 5 | | E | |
| 3 | Physics I | | 2.DF.OB12 | | 2 | | 1 | | 1 | |  | | 2 | | 6 | | 3 | | Co | |
| 4 | Mechanics I | | 2.DD.OB13 | | 2 | | 2 | |  | |  | | 2 | | 6 | | 5 | | E | |
| 5 | Civil engineering materials | | 2.DD.OB14 | | 2 | |  | | 2 | |  | | 2 | | 6 | | 5 | | E | |
| 6 | Engineering graphics | | 2.DF.OB15 | |  | |  | | 2 | |  | | 2 | | 4 | | 2 | | Co | |
| 7 | Humanity course II | | 2.DC.OB16 | | 1 | | 1 | |  | |  | |  | | 2 | | 1 | | Co | |
| 8 | Foreign language II | | 2.DC.OB17 | |  | | 2 | |  | |  | |  | | 2 | | 1 | | Co | |
| 9 | Physical education I | | 2.DC.OB18 | |  | | 2 | |  | |  | |  | | 2 | | 1 | | P/F | |
| **TOTAL Contact hours/week = 28** | | | | | **11** | | **12** | | **5** | | **0** | | **12** | | **40** | | **28** | | **4E+4Co+P/F** | |
| 10 | Surveying practice | | 2.DD.OB19 | | 2 weeks x 30 hours / week | | | | | | | | | | | | **2** | | **Co** | |
|  | **TOTAL Credits** | | | | | | | | | | | | | | | | **30** | | **4E+5Co+P/F** | |
| 11 | Romanian language for foreign students II | | 2.DC.FC05 | |  | | 2 | |  | |  | | 1 | | 3 | | 2 | | Co | |
| 12 | Culture and civilization II | | 2.DC.FC06 | | 2 | |  | |  | |  | | 1 | | 3 | | 2 | | Co | |
| 13 | Foreign language-supplement II | | 2.DC.FC07 | |  | | 2 | |  | |  | | 1 | | 3 | | 2 | | Co | |
| 14 | Mathematics- supplement II | | 2.DF.FC08 | |  | | 3 | |  | |  | | 1 | | 4 | | 3 | | Co | |
| 15 | Pedagogie I Fundamentele pedagogiei - Teoria si metodologia curriculum-ului | | 2.PP.FC09 | | 2 | | 1 | |  | | 1 | | 1 | | 5 | | 5 | | E | |
| **2nd Year (2017-18)** | | | | | | | | | | | | | | | | | | | | | |
| **3rd Semester – 30 ECTS (14 weeks)** | | | | | | | | | | | | | | | | | | | | | |
| **No.** | | **Name of the course** | | **Course Code** | | **C** | | **S** | | **L** | | **P** | | **IS** | | **TH** | | **CR** | | **Exam form** | |
| 1 | | Physics II | | 3.DF.OB20 | | 2 | | 1 | | 1 | |  | | 1 | | 5 | | 5 | | E | |
| 2 | | Computer aid drawing | | 3.DF.OB21 | | 2 | |  | | 2 | |  | | 2 | | 6 | | 5 | | Co | |
| 3 | | Mechanics II | | 3.DD.OB22 | | 3 | | 3 | |  | |  | | 2 | | 8 | | 6 | | E | |
| 4 | | Strength of materials I | | 3.DD.OB23 | | 3 | | 1 | | 1 | |  | | 3 | | 8 | | 6 | | E | |
| 5 | | Engineering geology | | 3.DD.OB24 | | 2 | |  | | 1 | |  | | 2 | | 5 | | 5 | | E | |
| 6  (ECI) | | Architecture | | 3.DD.OP01 | | 2 | |  | |  | |  | | 2 | | 2  2 | | 2 | | Co | |
| Urban planning | | 3.DD.OP02 | |
| 7 | | Foreign language III | | 3.DC.OB25 | |  | | 2 | |  | |  | |  | | 2 | | 1 | | Co | |
| 8 | | Physical education | | 3.DC.OB26 | |  | | 2 | |  | |  | |  | | 2 | |  | |  | |
| **TOTAL Contact hours/week = 28** | | | | | | **14** | | **9** | | **5** | | **0** | | **12** | | **40** | | **30** | | **4E+3Co** | |
| 9 | | Romanian language for foreign students III | | 3.DC.FC10. | |  | | 2 | |  | |  | | 1 | | 3 | | 2 | | Co | |
| 10 | | Construction history I | | 3.DC.FC11 | | 2 | |  | |  | |  | | 1 | | 3 | | 2 | | Co | |
| 11 | | Pedagogie II:  - Teoria si metodologia instruirii  - Teoria si metodologia evaluarii | | 3.PP.FC12 | | 2 | | 1 | |  | | 1 | | 1 | | 5 | | 5 | | E | |
| **4th Semester – 30 ECTS (14 weeks)** | | | | | | | | | | | | | | | | | | | | | |
| 1 | | Structural analysis I | | 4.DD.OB27 | | 3 | | 2 | |  | |  | | 3 | | 8 | | 6 | | E | |
| 2 | | Hydraulics | | 4.DD.OB28 | | 2 | |  | | 2 | |  | | 3 | | 7 | | 6 | | E | |
| 3 | | Strength of materials II | | 4.DD.OB29 | | 3 | | 2 | | 1 | |  | | 3 | | 9 | | 6 | | E | |
| 4 | | Reinforced concrete I | | 4.DD.OB30 | | 2 | |  | | 1 | |  | | 2 | | 5 | | 6 | | E | |
| 5 | | Foreign language IV | | 4.DC.OB31 | |  | | 2 | |  | |  | |  | | 2 | | 1 | | Co | |
| 6 | | Physical education II | | 4.DC.OB32 | |  | | 2 | |  | |  | |  | | 2 | | 1 | | P/F | |
| 7  (EC II) | | Environmental engineering | | 4.DD.OP03 | | 2 | | 1 | |  | |  | | 1 | | 3 | | 2 | | Co | |
| Construction machines | | 4.DD.OP04 | |
| 8  (EC III) | | Sanitary engineering | | 4.DD.OP05 | | 2 | | 1 | |  | |  | | 1 | | 4 | | 2 | | Co | |
| Enterprise economic and law | | 4.DD.OP06 | |
| **TOTAL Contact hours/week = 28** | | | | | | **14** | | **10** | | **4** | | **0** | | **12** | | **40** | | **30** | | **4E+3Co+P/F** | |
| 9 | | Romanian language for foreign students IV | | 4.DC.FC13 | |  | | 2 | |  | |  | | 1 | | 3 | | 2 | | Co | |
| 10 | | Construction history II | | 4.DC.FC14 | | 2 | |  | |  | |  | | 1 | | 3 | | 2 | | Co | |
| 11 | | Didactica specialitatii | | 4.PP.FC15 | | 2 | | 2 | |  | |  | | 1 | | 5 | | 5 | | E | |
|  | | | | | | | | | | | | | | | | | | | | | |

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| **3rd Year (2018-19)** | | | | | | | | | | | | | | | | | | | | | | |
| **5th Semester – 30 ECTS (14 weeks)** | | | | | | | | | | | | | | | | | | | | | | |
| **No.** | | **Name of the course** | | | **Course Code** | | **C** | | **S** | | **L** | | **P** | | **IS** | | **TH** | | **CR** | | **Exam form** | |
| 1 | | Soil mechanics | | | 5.DD.OB33 | | 2 | |  | | 2 | |  | | 2 | | 6 | | 6 | | E | |
| 2 | | Structural analysis I | | | 5.DD.OB34 | | 2 | | 1 | | 2 | |  | | 3 | | 8 | | 6 | | E | |
| 3 | | Reinforced concrete II | | | 5.DD.OB35 | | 2 | |  | | 3 | |  | | 2 | | 7 | | 5 | | E | |
| 4 | | Finite Element Method introduction | | | 5.DD.OB36 | | 2 | |  | | 2 | |  | | 2 | | 6 | | 3 | | Co | |
| 5 | | Building design I | | | 5.DD.OB37 | | 2 | |  | | 1 | |  | | 2 | | 5 | | 4 | | E | |
| 6 | | Introduction to Theory of Elasticity, Plates and Shells | | | 5.DD.OB38 | | 1 | |  | | 1 | |  | | 1 | | 3 | | 2 | | Co | |
| 7  (EC IV) | | Masonry structures | | | 5.DS.OP07 | | 2 | |  | | 2 | |  | | 1 | | 5 | | 4 | | E | |
| Wood structures | | | 5.DS.OP08 | |
| **TOTAL Contact hours/week = 27** | | | | | | | **13** | | **1** | | **13** | | **0** | | **13** | | **40** | | **30** | | **5E+2Co** | |
| 8 | | Elasticity and plasticity I | | | 5.DD.FC16 | | 2 | | 1 | |  | |  | | 1 | | 4 | | 3 | | Co | |
| 9 | | Statistics I | | | 5.DD.FC17 | | 2 | | 1 | |  | |  | | 1 | | 4 | | 3 | | Co | |
| 10 | | Practica pedagogica | | | 5.PP.FC18 | |  | |  | |  | | 3 | |  | | 3 | | 3 | | Co | |
| **6th Semester – 30 ECTS (14 weeks + 3 weeks)** | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | Reinforced concrete structures I | | | 6.DS.OB39 | | 3 | |  | |  | |  | | 2 | | 5 | | 3 | | E | |
| 2 | | Reinforced concrete structures I – Pr. | | | 6.DS.OB40 | |  | |  | |  | | 2 | | 2 | | 4 | | 2 | | P | |
| 3 | | Building design II | | | 6.DS.OB41 | | 2 | |  | |  | |  | | 2 | | 4 | | 2 | | E | |
| 4 | | Building design II – Pr. | | | 6.DS.OB42 | |  | |  | |  | | 2 | | 2 | | 4 | | 2 | | P | |
| 5 | | Foundation engineering | | | 6.DD.OB43 | | 2 | |  | |  | |  | | 1 | | 3 | | 3 | | E | |
| 6 | | Foundation engineering – Pr. | | | 6.DD.OB44 | |  | |  | |  | | 2 | | 1 | | 3 | | 2 | | P | |
| 7 | | Steel structures I | | | 6.DD.OB45 | | 2 | |  | | 2 | |  | | 1 | | 5 | | 4 | | E | |
| 8 | | Dynamics and Earthquake engineering introduction | | | 6.DD.OB46 | | 3 | |  | | 2 | |  | | 2 | | 7 | | 4 | | E | |
| 9 | | Computer methods in civil engineering | | | 6.DD.OB47 | | 2 | |  | | 2 | |  | | 1 | | 5 | | 3 | | Co | |
| **TOTAL Contact hours/week = 26** | | | | | | | **14** | | **0** | | **6** | | **6** | | **14** | | **40** | | **25** | | **5E+3P+1Co** | |
| 10 | | Practical stage | | | 6.DD.OB48 | | 3 weeks x 40 hours / week | | | | | | | | | | | | **5** | | **Co** | |
| **TOTAL Credits** | | | | | | | | | | | | | | | | | | | **30** | | **5E+3P+2Co** | |
| 11 | | Elasticity and plasticity II | | | 6.DD.FC19 | | 2 | | 1 | |  | |  | | 1 | | 4 | | 3 | | Co | |
| 12 | | Statistics II | | | 6.DD.FC20 | | 2 | | 1 | |  | |  | | 1 | | 4 | | 3 | | Co | |
| 13 | | Managementul clasei de elevi | | | 6.PP.FC21 | | 1 | | 1 | |  | |  | | 1 | | 3 | | 3 | | E | |
| 14 | | Practica pedagogica | | | 6.PP.FC22 | |  | |  | |  | | 3 | |  | | 3 | | 2 | | Co | |
| 15 | | DPPD – Examen absolvire Nivel I | | | 6.PP.FC23 | |  | |  | |  | |  | |  | |  | | 5 | | E | |
|  | | | | | | | | | | | | | | | | | | | | | | |
| **4th Year (2019-20)** | | | | | | | | | | | | | | | | | | | | | |
| **7th Semester – 30 ECTS (14 weeks)** | | | | | | | | | | | | | | | | | | | | | |
| **No.** | | | **Name of the course** | **Course Code** | | **C** | | **S** | | **L** | | **P** | | **IS** | | **TH** | | **CR** | | **Exam form** | |
| 1 | | | Steel structures II | 7.DS.OB50 | | 3 | |  | |  | |  | | 2 | | 5 | | 4 | | E | |
| 2 | | | Steel structures II - Pr. | 7.DS.OB51 | |  | |  | |  | | 3 | | 2 | | 5 | | 3 | | P | |
| 3 | | | Structural reliability and risk analysis | 7.DS.OB52 | | 2 | |  | | 2 | |  | | 2 | | 6 | | 5 | | E | |
| 4 | | | Construction engineering I | 7.DS.OB53 | | 2 | |  | | 1 | |  | | 1 | | 1 | | 4 | | E | |
| 5 | | | Reinforced concrete structures II | 7.DS.OB54 | | 2 | |  | |  | |  | | 2 | | 4 | | 3 | | E | |
| 6 | | | Reinforced concrete structures II - Pr. | 7.DS.OB55 | |  | |  | |  | | 2 | | 2 | | 4 | | 3 | | P | |
| 7 | | | Construction management I | 7.DD.OB56 | | 2 | |  | | 1 | |  | | 1 | | 4 | | 3 | | Co | |
| 8  (EC V) | | | Special foundation works | 7.DS.OP09 | | 2 | |  | | 2 | |  | | 1 | | 5 | | 3 | | Co | |
| Underground works | 7.DS.OP10 | |
| 9  (EC VI) | | | Composites and associated materials | 7.DS.OP11 | | 2 | |  | |  | |  | | 1 | | 3 | | 2 | | Co | |
| Traditional and modern finishing works for buildings | 7.DS.OP12 | |
| **TOTAL Contact hours/week = 26** | | | | | | **15** | | **0** | | **6** | | **5** | | **14** | | **40** | | **30** | | **4E+2P+3Co** | |
| 10 | | | Marketing | 7.DC.FC24 | | 2 | |  | |  | |  | | 1 | | 3 | | 2 | | Co | |
| 11 | | | 3D Computer aid drawing | 7.DC.FC25 | |  | | 2 | |  | |  | | 1 | | 3 | | 2 | | Co | |
| **8th Semester – 30 ECTS (10 weeks + 4 weeks)** | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | Construction engineering II | 8.DS.OB57 | | 2 | |  | | 3 | |  | | 1 | | 6 | | 4 | | E | |
| 2 | | | Construction management II | 8.DD.OB58 | | 2 | |  | | 2 | |  | | 1 | | 5 | | 4 | | E | |
| 3 | | | Building design III | 8.DS.OB59 | | 2 | |  | |  | |  | | 1 | | 3 | | 3 | | E | |
| 4 | | | Building design III - Pr. | 8.DS.OB60 | |  | |  | |  | | 3 | | 2 | | 5 | | 2 | | P | |
| 5 | | | Steel structures III | 8.DS.OB61 | | 2 | |  | |  | |  | | 1 | | 3 | | 3 | | E | |
| 6 | | | Steel structures III - Pr. | 8.DS.OB62 | |  | |  | |  | | 2 | | 2 | | 4 | | 2 | | P | |
| 7  (EC VII) | | | Diploma Project work (design of a reinforced concrete/steel/masonries/ wood etc. structure ) | 8.DS.OP13 | |  | |  | |  | | 3 | | 3 | | 6 | | 4 | | Co | |
| 8  (EC VIII) | | | Equipment for buildings | 8.DD.OP14 | | 2 | |  | | 1 | |  | | 1 | | 4 | | 1 | | Co | |
| Transport engineering | 8.DD.OP15 | |
| 9 | Building Information Modelling (BIM) | | | 8.DD.OB63 | | 1 | |  | | 2 | |  | | 1 | | 4 | | 2 | | Co | |
| **TOTAL Contact hours/week = 27** | | | | | | **11** | | **0** | | **8** | | **8** | | **13** | | **40** | | **25** | | **4E+2P+3Co** | |
| 10 | | | Diploma Project practical stage | 8.DS.OB64 | | 4 weeks x 30 hours / week | | | | | | | | | | | | 5 | | Co | |
| **TOTAL Credits** | | | | | | | | | | | | | | | | | | **30** | | **4E+2P+3Co** | |
| **Diploma Project Defence\*)** | | | | **8.DS.OB65** | |  | | | | | | | | | | | | **10** | | **E** | |
| **\*) The total of 240 credits is compulsory for the Diploma Project defence** | | | | | | | | | | | | | | | | | | | |  | |

Dean Rector,

Professor dr.eng. Alexandru Aldea Professor dr.eng. Radu Sorin Vacareanu