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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 granted

E- exam

Co- colloquy

P/F- Passed / Failed

|  |  |  |  |  |  |  |  |  |  |  |
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| **1st Year (2015-16)** | | | | | | | | | | |
| **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 |  |  | 3 | 8 | 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 | 6 | 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 = 27** | | | **13** | **9** | **5** | **0** | **13** | **40** | **30** | **5E+3Co** |
| 10 | Second foreign language I | 1.DC.FC01 |  | 2 |  |  | 1 | 3 | 2 | Co |
| 11 | Culture and civilization I | 1.DC.FC02 | 2 |  |  |  | 1 | 3 | 2 | Co |
| 12 | Psihologia educatiei | 1.PP.FC03 | 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 | 3 |  | 2 |  | 2 | 7 | 5 | E |
| 6 | Engineering graphics | 2.DF.OB15 |  |  | 3 |  | 2 | 5 | 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** | | | **12** | **10** | **6** | **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 | Second foreign language II | 2.DC.FC04 |  | 2 |  |  | 1 | 3 | 2 | Co |
| 12 | Culture and civilization II | 2.DC.FC05 | 2 |  |  |  | 1 | 3 | 2 | Co |
| 13 | Pedagogie I Fundamentele pedagogiei - Teoria si metodologia curriculum-ului | 2.PP.FC06 | 2 | 1 |  | 1 | 1 | 5 | 5 | E |
| **\* COMPULSORY courses for passing from the 1st to the 2nd year of study** | | | | | | | | | | |

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| **2nd Year (2016-17)** | | | | | | | | | | |
| **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 |  | 2 | 6 | 5 | E |
| 2 | Computer aid drawing | 3.DD.OB21 | 2 |  | 2 |  | 2 | 6 | 5 | Co |
| 3 | Mechanics II \*\*) | 3.DD.OB22 | 3 | 3 |  |  | 3 | 9 | 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 | Architecture and urban planning | 3.DD.OB25 | 2 |  |  |  | 2 | 4 | 2 | Co |
| 7 | Foreign language III | 3.DC.OB26 |  | 2 |  |  |  | 2 | 1 | Co |
| 8 | Physical education | 3.DC.OB27 |  | (2) |  |  |  | (2) |  |  |
| **TOTAL Contact hours/week = 26** | | | **14** | **7** | **5** | **0** | **14** | **40** | **30** | **4E+3Co** |
| 9 | Second foreign language III | 3.DC.FC07. |  | 2 |  |  | 1 | 3 | 2 | Co |
| 10 | Construction history I | 3.DC.FC08 | 2 |  |  |  | 1 | 3 | 2 | Co |
| 11 | Pedagogie II:  - Teoria si metodologia instruirii  - Teoria si metodologia evaluarii | 3.PP.FC09 | 2 | 1 |  | 1 | 1 | 5 | 5 | E |
| **4th Semester – 30 ECTS (14 weeks)** | | | | | | | | | | |
| 1 | Structural analysis I | 4.DD.OB28 | 3 | 2 |  |  | 3 | 8 | 6 | E |
| 2 | Hydraulics | 4.DD.OB29 | 2 |  | 2 |  | 3 | 7 | 6 | E |
| 3 | Strength of materials II \*\* | 4.DD.OB30 | 3 | 2 | 1 |  | 3 | 9 | 6 | E |
| 4 | Reinforced concrete I | 4.DD.OB31 | 2 |  | 1 |  | 3 | 6 | 6 | E |
| 5 | Foreign language IV | 4.DC.OB32 |  | 2 |  |  |  | 2 | 1 | Co |
| 6 | Physical education II | 4.DC.OB33 |  | (2) |  |  |  | (2) | 1 | P/F |
| 7  (EC I) | Environmental engineering | 4.DD.OP01 | 2 | 1 |  |  | 1 | 4 | 2 | Co |
| Construction machines | 4.DD.OP02 |
| 8  (EC II) | Sanitary engineering | 4.DD.OP03 | 2 | 1 |  |  | 1 | 4 | 2 | Co |
| Enterprise economic and law | 4.DD.OP04 |
| **TOTAL Contact hours/week = 26** | | | **14** | **8** | **4** | **0** | **14** | **40** | **30** | **4E+3Co+P/F** |
| 9 | Second foreign language IV | 4.DC.FC10 |  | 2 |  |  | 1 | 3 | 2 | Co |
| 10 | Construction history II | 4.DC.FC11 | 2 |  |  |  | 1 | 3 | 2 | Co |
| 11 | Didactica specialitatii | 4.PP.FC12 | 2 | 2 |  |  | 1 | 5 | 5 | E |
| **\*\* COMPULSORY courses for passing from 2nd to 3rd year of study** | | | | | | | | | | |

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| **3rd Year (2017-18)** | | | | | | | | | | |
| **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.OB34 | 3 |  | 2 |  | 2 | 7 | 6 | E |
| 2 | Structural analysis II\*\*\* | 5.DD.OB35 | 2 | 1 | 2 |  | 3 | 8 | 6 | E |
| 3 | Reinforced concrete II | 5.DD.OB36 | 2 |  | 2 |  | 2 | 6 | 5 | E |
| 4 | Finite Element Method introduction | 5.DD.OB37 | 2 |  | 2 |  | 2 | 6 | 3 | Co |
| 5 | Building design I | 5.DD.OB38 | 2 |  | 1 |  | 2 | 5 | 4 | E |
| 6 | Introduction to Theory of Elasticity, Plates and Shells | 5.DD.OB39 | 1 |  | 1 |  | 1 | 3 | 2 | Co |
| 7  (ECIII) | Masonries structures | 5.DS.OP05 | 2 |  | 2 |  | 1 | 5 | 4 | E |
| Wood structures | 5.DS.OP06 |
| **TOTAL Contact hours/week = 27** | | | **14** | **1** | **12** | **0** | **13** | **40** | **30** | **5E+2Co** |
| 8 | Elasticity and plasticity I | 5.DD.FC13 | 2 | 1 |  |  | 1 | 4 | 3 | Co |
| 9 | Statistics I | 5.DD.FC14 | 2 | 1 |  |  | 1 | 4 | 3 | Co |
| 10 | Practica pedagogica | 5.PP.FC15 |  |  |  | 3 |  | 3 | 3 | Co |
| **6th Semester – 30 ECTS (14 weeks + 3 weeks)** | | | | | | | | | | |
| 1 | Reinforced concrete structures I | 6.DS.OB40 | 3 |  |  |  | 1 | 4 | 3 | E |
| 2 | Reinforced concrete structures I – Pr. | 6.DS.OB41 |  |  |  | 3 | 2 | 5 | 2 | P |
| 3 | Building design II | 6.DS.OB42 | 3 |  |  |  | 1 | 4 | 2 | E |
| 4 | Building design II – Pr. | 6.DS.OB43 |  |  |  | 2 | 2 | 4 | 2 | P |
| 5 | Foundation engineering | 6.DD.OB44 | 3 |  |  |  | 1 | 4 | 3 | E |
| 6 | Foundation engineering – Pr. | 6.DD.OB45 |  |  |  | 2 | 1 | 3 | 2 | P |
| 7 | Steel structures I | 6.DD.OB46 | 2 |  | 2 |  | 1 | 5 | 4 | E |
| 8 | Dynamics and Earthquake engineering introduction | 6.DD.OB47 | 3 |  | 2 |  | 1 | 6 | 4 | E |
| 9 | Computer methods in civil engineering | 6.DF.OB48 | 2 |  | 2 |  | 1 | 5 | 3 | Co |
|  | | |  |  |  |  |  |  |  |  |
| **TOTAL Contact hours/week = 29** | | | **16** | **0** | **6** | **7** | **11** | **40** | **25** | **5E+3P+1Co** |
| 10 | Practical stage | 6.DD.OB49 | 3 weeks x 40 hours / week | | | | | | **5** | **Co** |
| **TOTAL Credits** | | | | | | | | | **30** | **5E+3P+2Co** |
| 11 | Elasticity and plasticity II | 6.DD.FC16 | 2 | 1 |  |  | 1 | 4 | 3 | Co |
| 12 | Statistics II | 6.DD.FC17 | 2 | 1 |  |  | 1 | 4 | 3 | Co |
| 13 | Managementul clasei de elevi | 6.PP.FC18 | 1 | 1 |  |  | 1 | 3 | 3 | E |
| 14 | Practica pedagogica | 6.PP.FC19 |  |  |  | 3 |  | 3 | 2 | Co |
| 15 | DPPD – Examen absolvire Nivel I | 6.PP.FC20 |  |  |  |  |  |  | 5 | E |
| **\*\*\* COMPULSORY course for passing from 3-rd to 4-th year of study** | | | | | | | | | | |

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| **4th Year (2018-19)** | | | | | | | | | | | |
| **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