

TEMATICA PENTRU EXAMENUL DE LICENȚĂ/DIPLOMĂ
SESIUNILE IUNIE-IULIE 2013 ȘI FEBRUARIE 2014

Specializarea: INGINERIE CIVILA IN LIMBA ENGLEZA

1. Influence of the environmental factors on material characteristics
2. Design of linear structural elements according to strength and stiffness requirements (internal forces, stresses, strains, displacements).
3. Plastic analysis of linear structural elements.
4. Buckling analysis of slender compressed bars.
5. Engineering applications of plane elasticity in cartesian and polar coordinates (two-dimensional structural elements, tubes with thick walls, elastic half plane).
6. Structural analysis of statically indeterminate structures
7. Free and forced vibrations of an one degree elastic system
8. Calculation of the seismic forces
9. Factors influencing the bearing capacity of the foundation soil
10. Shallow foundations for civil and industrial buildings
11. Slope stability
12. Working stages of reinforced concrete members
13. Analysis and design of R.C. members loaded in bending
14. Shear ultimate limit strength. Design for shear of R.C. members
15. Reinforced concrete slabs
16. Structures with active of masonry walls – structure, materials, calculus
17. Hicrothermal protection of buildings
18. Constructive solutions for roofs, stairs and ceramic floors
19. Verifications of welded connections subjected to simple and combine stresses
20. Design of bolted connections acting in shear
21. Design and verifications of steel columns for ultimate limit states of strength and stability.
22. Design and verifications of steel beams for ultimate limit states of strength and stability.
23. General criteria for selection of structural systems for industrial buildings and constructions in rural zone
24. Design of timber members under various loading
25. Mechanization of transportation works
26. Resources management

REFERENCES

1. Lucian Strat - Statics, Rotaprint U.T.Iași
2. Ioana Vlad, Mihaela Ibănescu - *Strength of Materials*, Ed. Cermi,1998
3. Ioana Vlad - *Strength of Material. Combined States of Loading*, Ed.Tehnica Info, Chișinău, 2002
4. Ioana Anca Vlad – *The Plane Elasticity*, Ed. Societății Academice „Matei-Teiu Botez, Iași, 2005
5. Dan Precupanu, Mihaela Ibanescu – *Strength of Materials. Theoretical Synthesis and Engineering Applications*, Ed. Ștef, Iași, 2006.
6. Mihaela Ibanescu, Nicolae Ungureanu – *Strength of Materials. Advanced Topics* (e-book), Ed. Media-Tech, Iași, 2003.
7. Gabriela Atanasiu, Structural Dynamics.V.Goldis Univ. Press, Arad,2002
8. A.Stanciu, I.Lungu – *Fundații vol.I – Fizica și Mecanica pământurilor*, Ed.Tehnica, 2006
9. D. Plătică, V.Grecu, I.Lungu - *Foundation Engineering – Rotaprint*,1995
10. Marinela Bărbuță, Reinforced Concrete, Ed. CERMI, Iasi, 2005
11. Opreșan G. – *Industrial Buildings*, Ed. Ștef, 2007
12. D Isopescu D. – *Timber Structures*, Ed. U.T.Iași, 2002
13. Broșteanu M. – *Constructions. Philosophy of Design*, Ed. Cermi, Iași, 1998
14. Radu Pescaru, *Civil constructions - building elements*, Ed "Matei - Teiu Botez" 2005.

15. Oprişan G., Entuc I., Țăranu N. - "Industrial Buildings", Ed. STEF, Iași, 2006
16. Oprisan G.. Constructii Industriale - Note de curs si proiect, 2011.
17. Oprisan G. - Design Guide for Industrial and Agricultural Buildings, Ed. Societății Academice "Matei-Teiu Botez", Iași, 2007
18. Dalban C., Chesaru E., Dima S., Șerbescu C. - Construcții cu structură metalică, E.D.P. –R.A., București, 1997
19. Axinte E. – Elemente din oțel pentru construcții, Ed. PIM, Iași, 2008
20. Axinte E., Roșca V., Teleman C. – Elemente din oțel pentru construcții, vol. 2, Ed. Societății Academice "Matei-Teiu Botez", Iași, 2011
21. Țăranu N. - Elements of steel structures 1,2 - Course notes , 2011/2012
22. F. Păuleț-Crăiniceanu, Earthquake Engineering, Ed. Cermi, 1999.