

**Course name: Reinforced Concrete Structures I.**

Course code: YCRVSZ1BNF

2 hr lecture /2 hr practice /0 laboratory / E: exam / 8 credits

Department of Geotechnics and Structural Engineering

In charge: Dr. Gábor Telekes

For students of BSc in Civil Engineering

Pre-requirements for Erasmus students: 1 semester Building Materials and Mechanics of Supporting Structures

**OBJECTIVE OF THE COURSE:**

Reinforced concrete cross-sections - stress states. Dimensioning of centrally drawn and pressed structural elements. Dimensioning of bent reinforced concrete structural elements in stress states I, II and III. Designing reinforced concrete rods for shearing from bending. Principles of reinforcement of reinforced concrete bars and design of iron conduction.

**14 WEEKS SCHEDULE:**

1. week: Introducing reinforced structures
2. week: Loads, forces, bending moments
3. week: Bending of a reinforced beam 1.
4. week: Bending of a reinforced beam 2.
5. week: Written test 1.
6. week: Shear bearings of a girder 1.
7. week: Shear bearings of a girder 2.
8. week: Bending of a „T” section
9. week: Written test 2.
12. week: SLS – displacements and crack analysis
13. week: Columns and stairs

Assesment:

Tests and exam

