Time schedule CM02 Summer sem. 2018 - Lectures Tue. 8:00-9:50, Tue. 10:00-11:50, Tutorials Mo 14:00-15:50, Tutorials: Horská, A.

	Lecturer	Lectures (in total 24-26)	Tutorials (in total 12)
1 Tue 20.2.	Broukalová	MS 1 Masonry structures – terminology, compressed members, concentrated compression	19.2. Masonry 1 Preliminary design of masonry building, verification of the compressed member
2 Tue 20.2.	Broukalová	MS 2 Masonry bending, shear general models, simplified models	
3 Tue 27.2.	Broukalová	MS 3 Reinforced masonry – transversal reinforcement	26.2. Masonry 2 Verification of the underground wall (ULS) subjected to the earth pressure
4 Tue 27.2.	Broukalová	MS 4 Masonry – longitudinal reinforcement	
5 Tue 6.3.	Broukalová	MS 5 Masonry – strengthening of masonry structures	5.3. Masonry 3 Verification of the non-bearing wall subjected to the wind load Test no. 1 Masonry
6 Tue 6.3.	Broukalová	PS 1 Precast structures – differences in design, temporary design situations, execution, Systems and elements of precast structures, Multistorey buildings	
7 Tue 13.3.	Broukalová	PS 2 Precast structures – Design of elements, fastening elements, lifting anchors	12.3. PS 1 Composite concrete – concrete structure – design on ULS
8 Tue 13.3.	Hájek	PS 3 Joints in precast structures, structural performance, numerical modelling	
9 Tue 20.3.	Hájek	PS 4 Composite structures (concrete – concrete)	19.3. PS 2 Composite concrete-concrete structure – verification of stresses, simple drawing Test no. 2 Precast
10 Tue 20.3.	Hájek	PS 5 Precast structures – industrial halls	
11 Tue 27.3.	Vítek	SLS 1 ULS and SLS differences, Loading combinations, RC struct. State I and II, Effective section, stress analysis	26.3. RC slab 1 Design on ULS, reinforcement
12 Tue 27.3.	Vítek	SLS 2 Limitation of stress, Crack origin, Crack width analysis, limits of the crack width	
13 Tue 3.4.	Vítek	SLS 3 Deformations of RC structures, General method, Simplified methods, Deflection analysis of the RC beam	9.4. RC slab 2 Crack width analysis
14 Tue 3.4.	Vítek	SLS 4 Design of RC structures on ULS and SLS, Thickness of slabs, Depth of beams, Construction sequence	
15 Tue 10.4.	Vítek	SLS 5 Watertight structures, Principles of the design, Concrete, Reinforcement, Joints	16.4. RC slab 3 Deflection analysis Test no. 3 SLS
16 Tue 10.4.	Vítek	PC 1 Introduction to PC, Basic principles, Advantages, Materials for PC structures	
17 Tue 17.4.	Vítek	PC 2 Design of prestressing, prestress losses, prestressing during the service life	23.4. Prestressed beam 1 Design of the geometry, loading, parameters of the cross-section
18 Tue 17.4.	Vítek	PC 3 Technology of prestressing, pre and post tensioning, anchors, prestressing process	

19 Tue 24.4	Vráblík	PC 4 Verification of SLS and ULS in bending and shear	30.4. Prestressed beam 2 Design of prestressing.
20 Tue 24.4.	Vráblík	PC 5 Application of PC in buildings, eng. structures and bridges	
21 Tue 3.5.	Vítek	CB 1 Concrete bridges 1 – Introduction to bridges	7.5. Prestressed beam 3 Verification of axial stresses, ULS in bending
22 Tue 3.5.	Vítek	CB 2 Concrete bridges 2 – Introduction to bridges	Test no. 4 Prestressed concrete
23 Tue 15.5	Broukalová	Fibre Concrete	14.5. Consultancy. Final check and assessments.
24 Tue 15.5.	Vráblík	ES 1 Engineering structures 1 Introduction to engineering structures – examples, problems	

General conditions

Assessment
- Absence max. 1/3 i.e. **min. 8 x students must be present**
- Passing min. 2 from 4 tests in tutorials
- Submission of all 4 exercises in adequate quality

Examination
- Assessment completed
- Successful passing of the examination test (min.50% of points). Results of the tests in tutorials may be supporting.

Review of exercises

1. Masonry – 3 separate tasks
2. Composite concrete – concrete structure, design ULS, verification SLS
3. SLS Precast panel – design of reinforcement (ULS), crack width analysis, deflection analysis
4. Prestressed beam – design of the geometry design of prestressing, verification of stresses in SLS and ULS in bending

Vítek
Prague, 10. 2. 2018