1. Course number and name

RB-S1-19-W44-B6, Problem Seminar

2. Credits and contact hours*

2 ECTS, seminar: 15 hours**

3. Instructor's or course coordinator's name

Marcin Kozłowski, CEng, MSc, PhD, DSc, Assoc. Prof.

4. Text book, title, author, and year

- Seward D.: Understanding structures, Analysis, Materials, Design, Palgrave Macmillan, 2014
- Ashby M.F., Jones D.R.H.: Engineering Materials 1, An Introduction to Properties, Applications and Design, Butterworth-Heinemann, 2012
- Ashby M.F., Jones D.R.H.: Engineering Materials 2, An Introduction to Microstructures and Processing, Butterworth-Heinemann, 2013

a. other supplemental materials

- EN 1990 Eurocode: Basis of structural design
- EN 1991 Eurocode 1: Actions on structures
- EN 1992 Eurocode 2: Design of concrete structures
- EN 1993 Eurocode 3: Design of steel structures
- EN 1994 Eurocode 4: Design of composite steel and concrete structures
- EN 1995 Eurocode 5: Design of timber structures
- EN 1996 Eurocode 6: Design of masonry structures
- EN 1997 Eurocode 7: Geotechnical design
- EN 1998 Eurocode 8: Design of structures for earthquake resistance
- EN 1999 Eurocode 9: Design of aluminium structures

5. Specific course information

a. brief description of the content of the course (catalog description)

Students are required to prepare a presentation on a topic assigned by the instructor.

Students give a presentation to other students with critical commentary on the subject.

b. prerequisites or co-requisites

No prerequisites and additional requirements

c. indicate whether a required, elective, or selected elective (as per Table 5-1) course in the program

Required.

6. Specific goals for the course

a. specific outcomes of instruction, ex. The student will be able to explain the significance of current research about a particular topic

The student can:

- use their knowledge - formulate and solve complex and unusual problems,
- select appropriately sources and information
- select and apply appropriate methods and tools, including advanced information and communication technologies
- evaluate critically knowledge and recognize of knowledge in solving cognitive and practical problems
- formulate expert opinions on technical and technological processes carried out in the construction industry

b. explicitly indicate which of the student outcomes listed in Criterion 3 or any other outcomes are addressed by the course.

K1A_U14, K1A_K03

7. Brief list of topics to be covered

1. Civil engineering design
2. Timber as structural material
3. Steel as structural material
4. Ceramics as structural material
5. Glass as structural material
6. Concrete as structural material
7. Manufacturing of concrete
8. Concrete foundation
9. Thermal insulation in buildings
10. Machinery on construction site
11. Buildings' roof types
12. Waterproofing in buildings

*- Consultations were not included in the contact hours

**-per semester