

CONSTRUCTION OF ROAD AND BRIDGES IN THE WORLD

Course code:: **06.4--WILŚ- BUD- BDMS- DC11**

Type of course: obligatory

Language of instruction: Polish

Director of studies: dr hab. inż. Adam Wysokowski, prof. UZ
Department of Road and Bridges

Name of lecturer: dr hab. inż. Adam Wysokowski, prof. UZ

Form of instruction	Number of teaching hours per semester	Number of teaching hours per week	Semester	Form of receiving a credit for a course	Number of ECTS credits allocated	
Full-time studies						
Lecture	15	1	III	grade	1	
Class						
Laboratory						
Seminar						
Workshop						
Project						
Part-time studies						
Lecture	10	1	III	grade		
Class						
Laboratory						
Seminar						
Workshop						
Project						

COURSE AIM:

The aim of the course is to acquaint students with the construction and exploitation roads and bridges in various countries around the world, as well as new technologies and development trends in the field of construction.

ENTRY REQUIREMENTS:

Basics of Bridge engineering, road engineering basics

THEMATIC SCOPE OF COURSE:

Lecture:

Cultural and technical traditions in the field of road and bridges development in the world.
Examples of modern road construction in different countries of the world (roads, nodes, etc.).
Examples of modern bridge construction in various countries around the world. Record breaking objects in the area of road and bridges infrastructure in the world. Development trends in roads and bridges structures.

LEARNING OUTCOMES:

Knowledge

The student has ordered knowledge of road and bridge construction (K_W02). The student has knowledge of modernity and developments in the construction of roads and bridges in different parts of the world (K_W07).

Skills

Students can take advantage of both traditional and modern solutions in the world to build and maintenance new roads and bridges in Poland (K_U04).
He can choose the modern world road-bridge solution for use in the country (K_U06).

Social competence

Student is able to think and act in an entrepreneurial manner, he can collect the information needed to solve the tasks carried out on the Internet and literature (K_K01), with the possibility of their use in the country (K_K03).

LEARNING OUTCOMES VERIFICATION AND ASSESSMENT CRITERIA:

Lecture:

Condition for passing grade is regular attendance at lectures and getting a positive grade of the colloquium.

Student workload:

Contact with the lecturer	15lec+2cons	17 h.
Preparing for the colloquium		7 h,
Individual work		6 h,
Total	17+7+6	30 h,
Number of ECTS credits allocated	30/30	1 ECTS.

RECOMMENDED READING:

1. Flaga K., Januszkiewicz K., Hrabiec A., Cichy-Pazder E.. *Estetyka konstrukcji mostowych. Podręcznik dla studentów wyższych szkół technicznych*. Politechnika Krakowska, 2005r
2. David J. Brown, *MOSTY. Trzy tysiące lat zmagania z historią*, Arkady, 2005r

OPTIONAL READING:

1. Bliszczyk J. i inni., *Projektowanie stalowych kładek dla pieszych*. Dolnośląskie Wydawnictwo Edukacyjne, Wrocław 2004
2. Jarominiak A., *Mosty podwieszane*. Oficyna Wydawnicza Politechniki Rzeszowskiej, Rzeszów 2002r
3. Biliszczyk J., *Mosty podwieszane projektowanie i realizacja*. Arkady, Warszawa 2005r
4. Głomb J., *Człowiek z pogranicza epok*. Wydawnictwo Politechniki Warszawskiej 2004r

5. Fundacja Otwartego Muzeum Techniki, Zakład Mostów Politechniki Wrocławskiej *Mosty. Zabytki przemysłu i techniki w Polsce 7*. Wrocław 2007
6. Dupré J., *Bridges. A history of the most famous and important spans*. Könemann 1997r
7. Głomb J., *Pontifex maximus. Ponad przestrzenią i czasem*. Gliwice 1997r
8. Praca zbiorowa, *Budowa i budowniczowie estakad Gądowskich we Wrocławiu*. Wrocław 2003r
9. Janikowska K., *Mosty na Wiśle. Od źródeł do Bałtyku*. Bydgoszcz 2007r
10. Tomaszewicz A., Jansen J. J., *Mosty w Norwegii*. Biblioteczka ZMRP – Zeszyt nr 1. Kraków 1999r
11. Kowalczyk R., *Mosty w Portugalii*. Biblioteczka ZMRP – Zeszyt nr 2. Kraków 1999r
12. Kowalczyk R., *Mosty w Hiszpanii*. Biblioteczka ZMRP – Zeszyt nr 3. Kraków 1999r
13. Flaga K., Mendera Z., *Mosty we Francji*. Biblioteczka ZMRP – Zeszyt nr 4. Kraków 2000r
14. Cywiński Z., *Mosty w Japonii*. Biblioteczka ZMRP – Zeszyt nr 5. Kraków 2001r
15. Furtak K., *Mosty w Niemczech*. Biblioteczka ZMRP – Zeszyt nr 6. Warszawa-Kraków 2004r