



<b>Course name</b>	<b>Industrial Technologies</b>
<b>Entity running the course</b>	Faculty of Interior Architecture and Design
<b>Entity for which the course has been prepared</b>	Department of Design
<b>Course type</b>	Basic / obligatory
<b>Year of study / semester, type of studies</b>	Year II, sem. III, full-time bachelor's degree
<b>ECTS credits</b>	1 point ECTS
<b>Academic tutor</b>	Sen. lect. Bogdan Kochan, MFA
<b>Aim of the course</b>	Knowledge about basic laws of physics and mechanics, classical technologies and specific features of old and new materials, which are useful for designers who make projects in the area of industrial design.
<b>Prerequisites</b>	General knowledge resulting from secondary education.
<b>Learning outcomes:</b>	
<b>- knowledge</b>	Student has a basic knowledge in the area of techniques and technologies of making products, as well as features and use possibilities of traditional and new construction materials. Understands basic laws of physics and can utilize them in realizing their tasks. Can recognize different materials and tell the differences between them.
<b>- skills</b>	Student can select the most suitable technologies and materials for specific purposes, consciously applies technical and technological knowledge. Can independently compare features and qualities of construction materials and technological solutions being used.

**- personal and social competence**

**Course content**

Classes are about problems of using materials such as wood, paper, glass, metals, polymers, ceramics and composites as well as basic and more advanced technologies used in production. Students learn about basic rules and laws of physics and selected construction questions, which are necessary for a designer.

**Course form and number of course hours**

Illustrated lectures, discussions; 30 hours per semester.

**Assessment methods and criteria**

10% participation in classes  
15% activity during classes  
75% written exam

**Assessment type**

Graded pass

**Literature**

„Wprowadzenie do technologii materiałów dla projektantów”; Nawrot C. Mizera J. Kurzydłowski K.J.; WPW;  
„Metaloznawstwo”; Przybyłowicz Karol; seria "Podręczniki akademickie. Mechanika";  
„Technologia tworzyw sztucznych”; Pielichowski Jan, Puszyński Andrzej;  
„Kompozyty”; A. Boczkowska, J. Kapuściński, Z. Lindemann, D. Witemberg-perzyk, S. Wojciechowski;  
Oficyna Wydawnicza Politechniki Warszawskiej;  
„Spiekane metale i kompozyty z osnową”; Nowacki Jerzy; WNT;  
„Kompozyty metalowe”; Jerzy Sobczak; Instytut Transportu Samochodowego;  
„Zaawansowane technologie współczesnych systemów produkcyjnych”; E.Pająk; Wyd. Politechniki Poznańskiej;  
„Inżynieria materiałowa. Geneza, istota, perspektywy”; M.w. Grabski, J.a. Kozubowski; Oficyna Wydawnicza Politechniki Warszawskiej;

**Teaching aids**

Computer, projector

**Language of instruction**

Polish; communication in English possible