



Course name	Technology of ceramics and glass
Entity running the course	Faculty of Ceramics and Glass/Department of Conservation and Restoration of Ceramics and Glass
Entity for which the course has been prepared	
Course type	Specialty course, compulsory course.
Year of study / semester; Type of studies	Year I, semester 1 and 2; full time master's degree studies
ECTS credits	2
Academic tutor	D.Sc. Henryk Stoksik, professor of the Academy of Art and Design in Wrocław
Aim of the course	The aim of the course is to familiarize the student with the basic plastic and non-plastic raw materials used for the production of ceramic products, and also with the essential and auxiliary raw materials used in the process of glass melting.
Prerequisites	Entrance exam passed.
Learning outcomes:	
- <i>knowledge</i>	The students should know the plastic and non-plastic raw materials used for the production of ceramics and glass. They are expected to know the conditions for firing ceramic products and basic physicochemical properties of the glass. The student should know the methods of production and decoration of glassware. They know glass decoration devices, as well as abrasives.
- <i>skills</i>	The student should be able to carry out basic physicochemical tests on loamy materials. They are expected to be able to use non-plastic raw materials for the production of ceramic and glass masses.
- <i>personal and social competence</i>	The student is a good team member. They understand the need for extending their knowledge. They are able to analyze their knowledge and use it in practice. They present the obtained results in a comprehensible approachable manner.
Course content	Division of ceramic raw materials. Characteristics of plastic and non-plastic raw materials Physicochemical tests of plastic and castable masses. Production of plaster moulds. Methods of moulding ceramic products. Conditions for firing the ceramic products. Division of glass making materials. Realization of a glass set. Periodic and continuous melting of a glass mass. Disadvantages of the glass mass. Methods of glass decoration. 'Hot' method. Cold method. Processes occurring during grinding and carving the glass. Devices used for glass decoration and abrasives.
Course form and number of course hours	Lecture – 2 hours a week (30 hours/sem.)
Assessment methods and criteria	Semester 1: 30% executing assignments, 70% active participation in classes. Semestr 2: 30% active participation in classes, 70% written exam.
Assessment type	Graded pass at the end of semester 1. Graded pass at the end of semester 2.

Literature	<p>Wyszomirski P., Galos K., Surowce mineralne i chemiczne przemysłu ceramicznego, <i>/Mineral and chemical raw materials of the ceramic industry/</i>, Wydawnictwo Naukowe AGH, /AGH Scientific Publisher/, Kraków 2007.</p> <p>Flis B., Wszyńska A., Zarys technologii ceramiki, <i>/The outline of ceramics technology/</i> WSiP Pub. house, Warszawa 1984.</p> <p>Rusiecki A., Raabe J., Pracownia technologiczna ceramiki, <i>/Technological studio of ceramics/</i> WSiP Pub. house, Warszawa 1982.</p> <p>Nowotny W., Zdobienie szkła, <i>/Glass decoration/</i>, WSiP Pub. house, Warszawa 1987.</p> <p>Dobrzyński S., Żołędziowski W., Materiałoznawstwo szklarskie i ceramiczne, <i>/The science of glass and ceramic materials/</i> WSiP Pub. house, Warszawa 1978</p> <p>Nowotny W., Technologia szkła, <i>/Glass technology/</i> part I, WSiP Pub. house, Warszawa 1975.</p> <p>Kordek M., Technologia ceramiki, <i>/Ceramics technology/</i> part I, WSiP Pub. house, Warszawa 1974.</p>
Teaching aids	A projector
Language of instruction	Polish