



Course name	Conservation and restoration of 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 V, sem. 9 and 10; full time master's degree studies
ECTS credits	4
Academic tutor	Ph.D. Katarzyna Wantuch-Jarkiewicz
Aim of the course	The aim of the course is to develop the student's knowledge and the skills, so as to allow proper conduct of conservation and restoration of the historical objects made of glass. The main emphasis is put on the combination of knowledge in the field of glassmaking techniques and technologies with practical knowledge of conservation and restoration of glass. Development of the student's knowledge and skills in the scope of the use of conservation and research techniques applied in conservation and restoration of glass, based on the course, bibliographic queries, museum exercises and others.
Prerequisites	Knowledge and competence in the scope of conservation and restoration of glass. The V-th year glass conservation and restoration classes passed.
Learning outcome:	
– <i>knowledge</i>	The student has advanced knowledge in the area of proper recognition of the applied techniques and technologies of glassmaking and conservation (including research techniques), they know workshop fundamentals, they are able to correctly classify the tested object, the student correctly selects methods for conservation and restoration of the object made of glass.
– <i>skills</i>	Acquisition of the skill of accurate determination and selection of a proper technique for conservation and restoration of glass. The student consciously uses the workshop, they consciously select the means and methods that are appropriate and safe for glass. They can correctly compare and analyze the ongoing project. They can prepare a graphic documentation of the entire project.
– <i>personal and social competence</i>	The student is able to critically interpret the developed issue, they learn to properly present the results of their research, they can express pertinent opinions and judgments, they can fluently speak about the object of their research.
Course content	Utility and artistic historical glass, vessels and archaeological glass, painting on glass - issues of conservation and restoration, goals and problems of glass reconstruction.
Course form and number of course hours	Lectures, consultations, exercises in the studio and workshops of the department, participation in plein air workshops and exhibitions. 45 hours/sem.
Assessment methods and criteria	80% executing assignments/active participation in classes/working critique. 10% paper. 10% open critique.
Assessment type	Semester 9 – graded pass. Semestr 10 – graded examination review.

Literature	<p>1. Biszkont J., 2005, Późnośredniowieczne wyroby szklane z ratowniczych badań archeologicznych w rejonie ulic Szewskiej i Wita Stwosza we Wrocławiu, /Late medieval glassware of rescuing archaeological research in the area of streets Szewska and Wita Stwosza in Wrocław/; Śląskie Sprawozdania Archeologiczne, /Silesian Archaeological Reports/, V. 47 (2005), 193-206, fig. 6, tab. 1.</p> <p>2. Brill R.H., 1999. <i>Chemical Analyses of Early Glasses</i>, t. 1, 2, Corning, New York.</p> <p>3. Ciepiela-Kubalska S., 199, Szkłanice fletowate ze Starego Miasta w Warszawie (XIV/XV – 1 kwarta XVII wieku), /Glass flute vessels from the Old Town in Warsaw (XIV/XV – the first quarter of the seventeenth century)/ [in:] Acta Universitatis Nicolai Copernici, Archeologia XIX – Nauki Humanistyczno – Społeczne, /Archaeology of the XIX century – Humanistic – Social Sciences/, Notebook 223, pp. 25 - 42.</p> <p>4. Davison S., Newton R, 1996, <i>Conservation of Glass</i>; Butterworth-Heinemann, Oxford.</p> <p>5. Dekówna M., 1980, Szkło w Europie wczesnośredniowiecznej, /Glass in the early medieval Europe/ Zakład Narodowy imienia Ossolińskich, /National institute under the name of Ossolińscy/, Wrocław.</p> <p>6. Domasławski W., 1971, Hydrofobizacja szkła przy pomocy alkilochlorosilanów i alkiloalkoksydów, /Hydrophobization of glass/, Scientific Notebooks of the University of Mikołaj Kopernik, Zabytkoznawstwo i Konserwatorstwo 4, /Science of Monuments and Conservation 4/, Toruń 1971, p. 111 – 125.</p> <p>7. Greiner – Wronowa E., Pusoska A., Piasecka D., 2007, Biały nalot na obiekach szklanych w gablotach muzealnych, /White coating on the glass objects in museum display cases/, [in:] Szkło i Ceramika, /Glass and Ceramics/, Yearbook 58, pp. 26 - 31.</p> <p>8. Iwanicka M., 2008, Przykłady zastosowania tomografii optycznej (OCT) do badań materiałowych i analizy struktury dzieła sztuki, /Examples of the use of optical tomography (OCT) for research and analysis of the material structure of the work of art./, [in:] Acta Universitatis Nicolai Copernici, Zabytkoznawstwo i Konserwatorstwo XXXVI – Nauki Humanistyczno – Społeczne, /Science of Monuments and Conservation XXXVI – Humanistic-Social Sciences /, Notebook 386, Toruń, pp. 176 - 190.</p> <p>9. Kunicki – Goldfinger J.J., 2008, <i>Unstable historic glass: symptoms, causes, mechanisms and conservation</i>, [in:] Reviews in Conservation Number 9, pp. 47 – 60.</p> <p>10. Kunicki–Goldfinger J.J., 2005, Konserwacja i badania dwóch szklanych naczyń z rzymskiego Novae, /Conservation and research of two glass vessels from the Roman Novae/ [in:] Acta Universitatis Nicolai Copernici, Archeologia XXIX, Nauki Humanistyczno – Społeczne, /Archaeology XXIX, Humanistic- Social Sciences/ Notebook 370, pp. 269 - 278.</p> <p>11. Łydżba – Kopczyńska B., 2013, Analizy specjalistyczne i konserwacja zabytków ze średniowiecznego skarbu z Głogowa z 1987 r., /Specialized analyzes and conservation of monuments of the medieval treasure of Głogów of 1987/, 2013.</p> <p>12. Majewski E., 1907, Wskazówki do konserwowania wykopalisk przedhistorycznych, /Tips for conservation of prehistoric excavations/, Światowit, v. 8.</p> <p>13. Markiewicz M., 1991, Szkło w ikonografii – problemy interpretacyjne, /Glass in iconography - problems of interpretation/ [in:] Acta Universitatis Nicolai Copernici, Archeologia XVIII, Nauki Humanistyczno – Społeczne, /Archaeology XVIII, Humanistic- Social Sciences/ Notebook 210, pp. 289 - 293.</p> <p>14. Markiewicz M., 2005, Doświadczalne, hutnicze formowanie szklanych pucharek dzwonowatych na podstawie wczesnonowożytnych oryginałów, /Experimental, hot moulding of bell glass beakers on the basis of the early modern originals/ [in:] Acta Universitatis Nicolai Copernici, Archeologia XXIX, Nauki Humanistyczno – Społeczne, /Archaeology XXIX, Humanistic- Social Sciences/ Notebook 370, pp. 279 - 284.</p> <p>15. Nawracki M., 1999, Późnośredniowieczne i nowożytne szkła z terenu zamku krzyżackiego w Toruniu, /Late medieval and modern glasses from the area of the castle of the Teutonic Knights in Toruń/ [in:] Acta Universitatis Nicolai Copernici, Archeologia XXVII, /Archaeology XXVII/ Toruń, pp. 53 – 132.</p> <p>16. Koob S.P., 2006, <i>Conservation and Care of Glass Objects</i>, Archetype Publications,</p> <p>17. Miszczyk T., 2006, Dawne hutnictwo szkła w Karkonoszach i Górzach Izerskich, /Former glassworks in Karkonosze and Izerski Mountains [in:] Archeologia Żywa /Living Archaeology/ 2 (36),</p> <p>18. Krawczyk M., Romiński W., 1999, Wyroby szklane z XII – XVIII w. z badań archeologicznych w Nysie, /Glassware of the XII - XVIII century of the archaeological research in Nysa/, Silesia Antiqua 40, pp. 133 – 159.</p> <p>19. Olczak J., 1978, Analiza naczyń szklanych, /Glass vessels analysis/, [in:] Materiały sprawozdawcze z badań zespołu pobenedyktyńskiego w Mogilnie, z. 1, /Reports on the research of post-Benedict team in Mogilno/, Biblioteka Muzealnictwa i Ochrony Zabytków, /Library of Museology and Protection of Monuments/, Series B, Vol. 52, Warsaw 1978, pp. 130 - 155.</p> <p>20. Olczak J., 1965, Wytwórczość szklarska na terenie Polski we wczesnym średniowieczu. Studium archeologiczno –technologiczne, /The glass output in Poland in the early Middle Ages. The archaeological and technological study/, [in:] Studia z dziejów rzemiosła i przemysłu, /Studies of the history of craft and industry/ Vol.8, Z. Kamińska edit., Studia i materiały z historii kultury materialnej, /Studies and materials of the history of material culture/, Vol. 35, A. Gieysztor edit., Wrocław – Warszawa – Kraków 1968, p. 7.</p> <p>21. Purowski T., 2012, Wyroby szklane w kulturze lużyckiej w międzymiędzyrzeczu Noteć i środkowej Odry. Studium archeologiczno – technologiczne, /Glassware in Sorbian culture in the region between Noteć and middle Odra. The archaeological and technological study/ ; Instytut Archeologii i Etnologii Polskiej Akademii Nauk, Warszawa, /Institute of Archaeology and</p>
------------	--



AKADEMIA SZTUK PIĘKNYCH
IM. EUGENIUSZA GEPPERTA
WE WROCŁAWIU

Teaching aids	
Language of instruction	Polish with the possibility of running the course in English.