

A COURSE SYLLABUS – DOCTORAL SCHOOL
REGARDING THE QUALIFICATION CYCLE FROM 2020 TO 2024 AND FROM 2021 TO 2025

GENERAL INFORMATION ABOUT COURSE				
Course title		Precious and ornamental stones in archaeological context - meaning of color, occurrence, study of origin		
Name of the unit running the course		Doctoral School at University of Rzeszów		
Type of course (<i>obligatory, optional</i>)		obligatory		
Year and semester of studies		II and III year, summer semester		
Discipline		Archaeology		
Language of Course		Polish		
Name of Course coordinator		Joanna Trąbska, assistant professor		
Name of Course lecturer		Joanna Trąbska, assistant professor		
Prerequisites		no		
BRIEF DESCRIPTION OF COURSE (100-200 words)				
<p>The aim of the course is to introduce students to the issues of gemmology in terms of the use of stones and other substances defined as precious in the past, in the archaeological and historical context. Issues enabling the initial identification of these substances, the characteristics of their deterioration and their care will be discussed. Research methods used in gemmological laboratories will be described. Most types of stones and precious substances (minerals, mineraloids, rocks and bioliths) will be described. Examples of their use and exploitation in the past will be given. The problems of modern stones and precious substances, new types of them and economic importance will be discussed.</p>				
COURSE LEARNING OUTCOMES AND METHODS OF EVALUATING LEARNING OUTCOMES				
Learning outcome	The description of the learning outcome defined for the course	Relation to the degree programme outcomes (symbol)	Learning Format (Lectures, classes,...)	Method of assessment of learning outcomes (e.g. test, oral exam, written exam, project,...)
Knowledge (no.)	(Knows and understands)			
1	To the extent that allows the revision of existing paradigms - global achievements, including theoretical foundations as well as general issues and selected specific issues - appropriate for archeology	P8S-WG/1	Lecture	Oral exam
2	The main development trends in the aspect of gems research for the needs of archaeology	P8S-WG/2	Lecture	Oral exam
3	Methodology of scientific research of gems	P8S-WG/3	Lecture	Oral exam

4				
Skills (no.)	(Able to)			
1	Use knowledge from various fields of science (archaeology and geology) to creatively identify and innovatively solve complex problems or perform research tasks, in particular: - define the purpose and subject of scientific research, formulate a research hypothesis, - develop methods, techniques, research tools and use them creatively, - draw conclusions based on scientific research	P8S-UW/1	Lecture, classes	Oral exam
2	Make a critical analysis and evaluation of research results	P8S-UW/2	Lecture, classes	Discussion during classes, oral exam
3	Initiate a debate	P8S-UK/3	Lecture, classes	Discussion during classes, oral exam
	Participate in scientific discourse	P8S-UK/4 P8S-UK/1 P8S-UK/5	Lecture, classes	Discussion during classes, oral exam
	Disseminate the results of scientific activity	P8S-UK/2	Lecture, classes	Discussion during classes, oral exam
Social competence (no.)	(Ready to)			
1	Recognize the importance of knowledge in solving cognitive and practical problems	P8S-KK/3	Lecture, classes	Discussion during classes, oral exam
2	Critical evaluation of scientific research	P8S-KK/1	Lecture, classes	Discussion during classes, oral exam

3	Initiating activities in the public interest	P8S-KO/2	Lecture, classes	Discussion during classes, oral exam		
LEARNING FORMAT – NUMBER OF HOURS						
Semester (no.)	Lectures	Seminars	Lab classes	Internships	others	ECTS
IV i VI	5h	10h	-	-	-	0
METHODS OF INSTRUCTION						
Lecture with the use of presentations, analysis and discussion of cases.						
COURSE CONTENT						
<ol style="list-style-type: none"> 1. Contemporary definitions and divisions in the field of gemmology and their relation to the old classifications of precious stones. Cuts and multiplerts. 2. So-called noble stones in the light of treaties - names, origins, use, "forgeries". 3. Basic diagnostic features of precious stones. Methodology of gemmological research, gemmological laboratories in Poland and in the world. 4. Gemmological characteristics of groups of precious stones, examples of their use in archaeological and historical contexts, special features and identification studies, provenance studies. Minerals - diamond, ruby, sapphire, emerald, tanzanite, spinel, garnet, fluorite, zircon, topaz, tourmaline, jade, chalcedony group (agate, carnelian, heliotrope, chrysoprase, onyx), quartz group (amethyst, citrine, smoky quartz). Mineraloids and amorphous substances - opal group, precious glass (natural and man-made). 5. As above - bioliths - amber, jet, sapropel, anthracite, pearls. 6. As above - rocks - jadeite (as a rock), lapis lazuli, sodalite, listvenite, beresite, charoite. 7. Contemporary gemstones - tanzanite, zircons, aurora borealis and others. 8. Degradation of gemstones. Caring for precious stones. 9. Contemporary economic aspects of trading in gemstones. Gemmological collections in Poland and in the world. 						
COURSE ASSESSMENT CRITERIA						
LECTURES – oral exams						
VERY GOOD - ACTIVITY IN CLASSES, SKILLS OF SELECTION OF RESEARCH METHODS, SKILLS OF INTERPRETATION OF RESEARCH RESULTS, KNOWLEDGE OF DIAGNOSTIC CHARACTERISTICS OF THE SUBSTANCES, KNOWLEDGE OF THEIR ENVIRONMENTS AND ORIGIN						
GOOD PLUS - ACTIVITY IN CLASSES, SKILLS OF SELECTION OF RESEARCH METHODS, SKILLS OF INTERPRETATION OF RESEARCH RESULTS, KNOWLEDGE OF MOST DIAGNOSTIC CHARACTERISTICS OF THE SUBSTANCES, KNOWLEDGE OF THEIR ENVIRONMENTS						
GOOD - ACTIVITY IN CLASSES, SKILLS OF SELECTION OF RESEARCH METHODS, SKILLS OF INTERPRETATION OF RESEARCH RESULTS, KNOWLEDGE OF SOME DIAGNOSTIC CHARACTERISTICS OF THE SUBSTANCES, KNOWLEDGE OF THEIR ENVIRONMENTS						
SUFFICIENT - PRESENCE AT CLASSES						
TOTAL PhD STUDENT WORKLOAD REQUIRED TO ACHIEVE THE INTENDED LEARNING OUTCOMES – NUMBER OF HOURS AND ECTS CREDITS						

Activity	Number of hours
Scheduled course contact hours	15h
Other contact hours involving the teacher (consultation hours, examinations)	2h
Non-contact hours – student`s own work (preparation for classes or examinations, project, etc.)	10h
Total number of hours	27h
Total number of ECTS credits	0

INSTRUCTIONAL MATERIALS

Compulsory literature:	<p>Heflik W. 1989. Kamienie ozdobne Polski. Warszawa</p> <p>Heflik W., Natkaniec – Nowak L. 2011. Gemmologia. Kraków</p> <p>Łapot W. 1999. Gemmologia ogólna. Katowice</p> <p>Łapot W. 2000. Gemmologia szczegółowa. Vademecum. Katowice</p> <p>Schumann W. 2004. Kamienie szlachetne i ozdobne. Warszawa</p> <p>Żaba J. 2003. Ilustrowany słownik skał i minerałów. Katowice</p> <p>ARTYKUŁY Z CZASOPISM ARCHEOMETRYCZNYCH, GEOLOGICZNYCH, GEMMOLOGICZNYCH I MUZEALNICZYCH.</p>
Complementary literature:	<p>Maślankiewicz K. 1983. Kamienie szlachetne. Warszawa</p> <p>Medenbach O., Sussieck-Fornefeld. 1995. Minerały. Leksykon przyrodniczy. Warszawa</p> <p>Sachanbiński M (red.) 1984. Vademecum zbieracza kamieni szlachetnych i ozdobnych. Warszawa</p> <p>Sobczak N., Sobczak T. 1998. Wielka encyklopedia kamieni szlachetnych i ozdobnych</p> <p>Sobczak T., Sobczak N. 1995. Perły. Warszawa</p>