Annex No. 5

to Ordinance No. 21/2019

**COURSE/MODULE SYLLABUS FOR UNIVERSITY COURSES/PhD STUDIES**

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|  | Course/module name in Polish and English  New trends in tectonics and structural geology/Nowe trendyw w tektonice i geologii strukturalnej | | |
|  | Discipline  Earth and Environmental Science | | |
|  | Language of instruction  English | | |
|  | Teaching unit  Faculty of Earth Science and Environmental Management, Institute of Geological Sciences, Department of Structural Geology and Tectonics | | |
|  | Course/module code  USOS | | |
|  | Type of course/module *(mandatory or optional)*  optional | | |
|  | Field of studies (major, if applicable)  Geology (spec. Applied Geoscience) | | |
|  | Level of higher education *(undergraduate (I cycle), Master’s (II cycle), 5 year uniform Master’s studies)*  Master’s (II cycle) | | |
|  | Year of studies *(if applicable*)  I | | |
|  | Semester *(winter or summer)*  summer | | |
|  | Form of classes and number of hours  Seminar: 20 | | |
|  | Name, title/degree of the teacher/instructor  Coordinator: Prof. dr hab. Paweł Aleksandrowski  Seminar instructor: Prof. dr hab. Paweł Aleksandrowski | | |
|  | Course/module prerequisites, in terms of knowledge, skills, social competences  Basic knowledge of structural geology and tectonics. | | |
|  | Course objectives  Broadening students’ knowledge of the tectonics and structural geology with information on new trends, research methods and techniques and possibilities of their practical application. Allowing students to improve their capabilities and skills in analysis of scientific literature and in unassisted preparation of review lectures as well as their presentation in public. | | |
|  | Course content  The current state of knowledge and research problems being of general interest in the contemporary world of tectonics and structural geology. Selected new method used in the latter sciences. These questions will be dealt with by students using contemporary scientific literature recommended by the teacher and found out by themselves (mostly professional papers in international periodicals). Discussed will be examples representing various tectonic environments (e.g. orogens, platforms, sedimentary basins) and elements of methodology concerning a wide spectrum of structural problems. | | |
|  | Intended learning outcomes  P\_W01 has knowledge in the domain of tectonics, structural geology and related sciences.  P\_W02 shows orientation in contemporary problems of tectonics and structural geology as well as in research methods and techniques they use.  P\_W03 knows the tectonic/structural terminology and  nomenclature.  P\_U01 is able to perceive relationships between  rock record in the form of tectonic structures and geological events that produced them.  P\_U02 shows skills in search and finding the required information and efficiently select data, and subsequently synthetize them in order to elaborate a paper on a given topic.  P\_U03 makes use of English-language scientific literature concerning geological sciences.  P\_U04 is capable to critically analyze and select information concerning geological sciences.  P\_U05 can effectively and in a logical way present his/her paper and take part in scientific discussion.  P\_K01 understands the need for continual updating and deepening his/her knowledge of Earth sciences. | Symbols of learning outcomes for particular fields of studies, *e.g. K\_W01\**, *K\_U05,K\_K03*  K2\_W02, K2\_W03,  K2\_W06  K2\_W08  K2\_U01, K2\_U04  K2\_U03  K2\_U02  K2\_U03  K2\_U07  K2\_K01 | |
|  | Required and recommended reading (sources, studies, manuals, etc.)  Required reading  Fossen H., 2016, Structural Geology, 2nd Ed., Cambridge University Press. Twiss R.J. & Moores E.M., 2006, Structural Geology, 2nd Ed., Freeman & Co.  Recommended reading  Pollard D.D. & Fletcher R.C., 2005, Fundmentals of Structural Geology, Cambridge University Press. Roberts D.G. & Bally A.W., 2012. Principles of Geologic Analysis, 1A., Elsevier. Kearey Ph., Klepeis K.A. & F.J. Vine, 2009, Global Tectonics. Wiley-Blackwell  Scientific periodicals recommended:  Tectonics (American Geophysical Union)  Journal of Structural Geology (Elsevier)  Tectonophysics (Elsevier)  Geodynamica Acta (Elsevier)  Journal of Geophysical Research – Solid Earth (American Geophysical Union) | | |
|  | Assessment methods for the intended learning outcomes:  Oral presentation, participation in discussions. K2\_W02, K2\_W03, K2\_W06, K2\_W08, K2\_U01, K2\_U02, K2\_U03, K2\_U04, K2\_U07, K2\_K01. | | |
|  | Credit requirements for individual components of the course/module:  Seminar:  - monitoring attendance (presence at not less than 80% of presentations by other students) and positive assessement of a presentation given by a student. | | |
|  | Total student effort | | |
| form of student activities | | number of hours for the implementation of activities |
| classes (according to the plan of studies) with a teacher/instructor:  - seminar: 20  - consultations: 5 | | 25 |
| student's own work (including group-work) such as:  - reading the suggested literature: 10  - preparing presentation: 15 | | 25 |
| Total number of hours | | 50 |
| Number of ECTS credits | | 2 |