

1.	Field of study	Applied Geology
2.	Faculty	Faculty of Natural Sciences
3.	Academic year of entry	2025/2026 (winter term)
4.	Level of qualifications/degree	first-cycle studies (in engineering)
5.	Degree profile	general academic
6.	Mode of study	full-time

7.	General information about the module	
Module name		Dynamic Earth 1
Module code		W2-GS-S1-405
Number of the ECTS credits		6
Language of instruction		Polish
Purpose and description of the content of education		<p>Celem modułu Dynamika Ziemi 1 jest wyjaśnienie mechanizmów, przyczyn i skutków procesów geologicznych zachodzących we wnętrzu Ziemi – procesów endogenicznych, tj. diastrofizm (tektonika płyt, trzęsienia ziemi), magmatyzm, metamorfizm oraz przedstawienie metod umożliwiających makroskopowe rozpoznawanie najczęściej występujących skał i minerałów skałotwórczych, co stanowi podstawę do bardziej zaawansowanych badań laboratoryjnych i mikroskopowych.</p> <p>Student poznaje parametry i budowę Ziemi, rozumie mechanizmy i uwarunkowania dynamiki skorupy ziemskiej oraz jej różnorodności strukturalnej. Uzyskuje umiejętność rozpoznawania i charakteryzowania procesów geologicznych zachodzących pod wpływem czynników wewnętrznych oraz zna ich wzajemne powiązania. Student poznaje podstawowe klasyfikacje minerałów i skał oraz zdobywa umiejętność makroskopowego rozpoznawania minerałów i skał wraz z identyfikacją procesów prowadzących do ich powstania.</p> <p>Nabyta wiedza może być podstawą prognozowania przebiegu procesów, w tym katastrof naturalnych, o podłożu geologicznym oraz przewidywania skutków wydarzeń geologicznych zarówno w skali regionalnej, jak i globalnej.</p>
List of modules that must be completed before starting this module (if necessary)		not applicable

8.	Learning outcomes of the module			
Code	Description	Learning outcomes of the programme	Level of competences (scale 1-5)	
W2-GS-S1-405_1	ma wiedzę dotyczącą budowy i ewolucji Ziemi.	1GS_W6	1	
W2-GS-S1-405_2	zna i rozumie uwarunkowania, oraz mechanizmy procesów endogenicznych oraz związaną z nimi terminologię geologiczną.	1GS_U1 1GS_W6	1 1	
W2-GS-S1-405_3	ma wiedzę dotyczącą zasad tektoniki płyt litosfery. Ma umiejętność wytłumaczenia zjawiska geologicznego w kontekście tektoniki płyt litosfery.	1GS_U1 1GS_W6	1 1	
W2-GS-S1-405_4	potrafi rozpoznać najważniejsze minerały skałotwórcze i podstawowe rodzaje skał oraz interpretować warunki ich powstania.	1GS_U1 1GS_W6	1 1	
W2-GS-	rozumie potrzebę ciągłego poszerzania swojej wiedzy. W sposób zorganizowany potrafi dysponować swoim czasem na	1GS_K1	1	

S1-405_5	samodzielne dokształcanie się.	1GS_K2 1GS_U11	1 1
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9. Methods of conducting classes		
Code	Category	Name (description)
a03	Lecture methods / expository methods	Description <i>a description of objects, phenomena, processes or people; it involves specifying the structure and characteristic features of the object, phenomenon, or process being described; it is usually accompanied by a demonstration of the described object or by its models, drawings, tables, charts, etc.; a description may take the form of an explanation, classification, justification or comparison</i>
b01	Problem-solving methods	Problem-based lecture <i>an analysis of a selected scientific or practical problem accompanied by its assessment and an attempt to provide a solution to the issues presented in the lecture as well as the indication of the consequences of the proposed solution</i>
b02	Problem-solving methods	Lecture-discussion <i>transmission of content involving interaction with the lecture audience; discussion of lecture-related issues is one of its elements or constitutes its follow-up</i>
b03	Problem-solving methods	Activating method – educational games <i>learning content in the guise of a rule- and/or principle-based game; conducted in a deliberately arranged situation based on the description of relevant facts and processes; learners compete with one another within the framework of rules laid down by the academic teacher; varieties include simulation games – involving a simulation of real situations; decision games – based on the decision-making process and the recognition of the consequences of the decisions made (e.g., a decision tree); psychological games – increasing the emotional-volitional component of the participants' attitudes</i>
b08	Problem-solving methods	Activating method – peer learning <i>learning through the exchange of knowledge in a group/team/pair of students, i.e., in the so-called learning cell; a kind of mutual learning; an approach focused on student activity under the guidance of the person teaching the course; a learning situation where students with a similar level of experience learn from one another</i>
b09	Problem-solving methods	Activating method – flipped classroom <i>anticipatory learning; work in class is based on previously studied material indicated by the person teaching the course; preparation outside the classroom serves the purpose of getting familiar with the issues whose knowledge is necessary for participating in the in-class discussion and the training in the related practical skills; the activity is based on the work of students under the guidance of the person teaching the course</i>
c01	Demonstration methods	Exhibition <i>preparing an object for public display and displaying it in order to elicit a specific reaction; creating a themed collection of specimens/objects/works to illustrate a specific issue</i>
c07	Demonstration methods	Screen presentation <i>a presentation of synthetic image content using computer graphics, e.g., a series of slides or other multimedia forms, usually accompanied by a commentary; typical components of a screen presentation include text organized into bulleted points, charts, images and animations, sometimes sound effects or music; a multimedia illustration of course content presented in the form of a projected image</i>

10. Forms of teaching					
Code	Name	Number of hours	Assessment of the learning outcomes of the module	Learning outcomes of the module	Methods of conducting classes
W2-GS-S1-405_I_1	laboratory classes	36	course work	W2-GS-S1-405_4, W2-GS-	b03, b08, b09, c01, c07

				S1-405_5	
W2-GS-S1-405_w_1	lecture	24	exam	W2-GS-S1-405_1, W2-GS-S1-405_2, W2-GS-S1-405_3, W2-GS-S1-405_5	a03, b01, b02

11. The student's work, apart from participation in classes, includes in particular:				
Code	Category	Name (description)		Is it part of the BUNA?
a02	Preparation for classes	Literature reading / analysis of source materials <i>reading the literature indicated in the syllabus; reviewing, organizing, analyzing and selecting source materials to be used in class</i>		No
a03	Preparation for classes	Developing practical skills <i>activities involving the repetition, refinement and consolidation of practical skills, including those developed during previous classes or new skills necessary for the implementation of subsequent elements of the curriculum (as preparation for class participation)</i>		No
b01	Consulting the curriculum and the organization of classes	Getting acquainted with the syllabus content <i>reading through the syllabus and getting acquainted with its content</i>		No
b02	Consulting the curriculum and the organization of classes	Verification / adjustment / discussion of syllabus provisions <i>consulting the content of the syllabus, possibly in the presence of the year tutor or members of the class group, and, if necessary, reassessing the provisions concerning special conditions for class participation, e.g., space and time requirements, technical and other requirements, including conditions for participation in classes outside the walls of the university, classes organized in blocks, organized online, etc.</i>		No
c02	Preparation for verification of learning outcomes	Studying the literature used in and the materials produced in class <i>exploring the studied content, inquiring, considering, assimilating, interpreting it, or organizing knowledge obtained from the literature, documentation, instructions, scenarios, etc., used in class as well as from the notes or other materials/artifacts made in class</i>		No
e01	Activities complementary to the classes	Undertaking, on one's own initiative and individually, activities aimed at expanding the scope or depth of the teaching content, also beyond the walls of the University <i>a set of activities undertaken independently and on the student's own initiative, aimed at expanding the depth and scope of knowledge and skills, their revision and repetition, retention or verification, also activities carried outside the university, e.g., in a culture promoting or educational institution, a laboratory, in the open air, etc.; also self-education</i>		No

Information on the details of the module implementation in a given academic year can be found in the syllabus available in the USOS system: <https://usosweb.us.edu.pl>.