COURSE UNIT (MODULE) DESCRIPTION

Course unit (module) title		Code
Theoretical and Applied Stratigraphy		
Lecturer(s)	**Department(s) where the course unit (module) is delivered**	
Coordinator: assoc. prof. dr. Sigitas Radzevičius	Department of Geology and Mineralogy, Institute of Geoscience, Faculty of Chemistry and Geoscience, Vilnius University.	
Study cycle	**Type of the course unit (module)**	
Full-time studies (2nd stage, master).	Mandatory.	
Mode of delivery	**Period when the course unit (module) is delivered**	**Language(s) of instruction**
Face-to-face.	Autumn semester (3rd semester).	Lithuanian / English.
Requirements for students		
Prerequisites: General geology	**Additional requirements (if any):** no	

Course (module) volume in credits	Total student's workload	Contact hours	Self-study hours
5	133	64	69

Purpose of the course unit (module): programme competences to be developed
To get acquainted with the principles of stratigraphy, stratigraphic unit's types and the rules of description, the International Stratigraphic scale with international stratigraphic units stratotypes. To develop competence in understanding and analysis of local, regional and international stratigraphic scale, to provide analysis and interpretation, training to identify problems, find, analyse the present data.

Learning outcomes of the course unit (module)	Teaching and learning methods	Assessment methods
- Demonstrate knowledge of the principles of stratigraphy, stratigraphic unit's types and distinguish procedures.	Lectures, problem based teaching, demonstration, information retrieval.	Examination

Content: breakdown of the topics	Contact hours							Self-study work: time and assignments	
	Lectures	Tutorials	Seminars	Exercises	Laboratory work	Internship/work placement	Contact hours	Self-study hours	Assignments
1 Aspects of Theoretical and applied stratigraphy science, principles and methods of stratigraphy.	3			1			**4**	**4**	Self-study of reference material.
2. The concept of stratigraphic unit and the essence of stratigraphic division.	3			1			**4**	**4**	Self-study of reference material.
3. Lithostratigraphy.	5			1			**6**	**6**	Self-study of reference material.
4. Biostratigraphy.	5			1			**6**	**6**	Self-study of reference material.
5. Chronostratigraphy.	5			1			**6**	**7**	Self-study of reference material.
6. Magnetostratigraphy.	5			1			**6**	**7**	Self-study of reference material.
7. Climate stratigraphy.	4			1			**5**	7	Self-study of reference material.

8. Cyclostratigraphy.		5			1			**6**	**7**	Self-study of reference material; preparation for lab-work defence.
9. Different categories of stratigraphic units, mutual relations and connections.		3			2			**5**	**7**	Self-study of reference material; preparation for lab-work defence.
10. The description and extraction rules of stratigraphic units.		3			2			**5**	**6**	Self-study of reference material; preparation for lab-work defence.
11. The International stratigraphic scale.		7			2			**9**	**7**	Self-study of reference material; preparation for lab-work defence.
12. Preparing for the exam and the exam storage.					2			**2**	**1**	Self-study of reference material; preparation for
	Total	**48**			**16**			**64**	**69**	

Assessment strategy	**Weight,%**	**Deadline**	**Assessment criteria**
Final written examination	100 %	During the term	Knowledge and understanding of Theoretical and Applied Stratigraphy terminology and concepts, reasoning abilities, ability to synthesize different kinds of given information, analytical skills.

Author	**Year of publication**	**Title**	**Issue of a periodical or volume of a publication**	**Publishing place and house or web link**
Compulsary reading				
1. Salvador A. (ed.)	1994	International Stratigrahic Guide		The Geological Society of America. U.S.A. 213 p.
2. Grigelis A., Paškevičius J., Jankauskas T., Kondratienė O., Satkūnas J.	2002	Lietuvos stratigrafijos vadovas		Lietuvos geologijos tarnyba, Geologijos institutas, Vilniauss universitetas. 163p.
3. Jankauskas T.	2005	Teorinė ir taikomoji stratigrafija		Vilniaus universitetas. 167 p.
4 Gradstein F. M., Ogg J. G., Schmitz M., Ogg G. (eds.)	2012	. The Geologic Time Scale 2012		ELSEVIER. 2-Volume.