COURSE UNIT (MODULE) DESCRIPTION

Course unit (module) title	Code
Introduction to coastal zone management	

Lecturer(s)	Department(s) where the course unit (module) is delivered
Coordinator: **assoc. prof. Donatas Pupienis** **Other(s):**	Department of Hydrology and Climatology Institute of Geosciences Faculty of Chemistry and Geosciences

Study cycle	Type of the course unit (module)
Last year of first cycle / Second cycle	Compulsory

Mode of delivery	Period when the course unit (module) is delivered	Language(s) of instruction
Face-to-face	Spring (II semester)	English

Requirements for students	
Prerequisites: none	**Additional requirements (if any):** none

Course (module) volume in credits	Total student's workload	Contact hours	Self-study hours
5	**133**	**48**	**85**

Purpose of the course unit (module): programme competences to be developed		
The aim of the course is to give necessary knowledge on coastal zone management especially on the important coastal resources, specific interests and common areas of conflicts, the principles for coastal conservation, planning processes.		
Learning outcomes of the course unit (module)	**Teaching and learning methods**	**Assessment methods**
– will be able to describe basic relationships and processes in coastal zone planning, – will be able to analyze and understand various actors in the coastal zone, their specific interests and common areas of conflict, – will be able to explain which scientific background values that are necessary for a successful planning, – will be able to understand on how social structures and questions about justice influence the planning process.	Lectures, seminars, self-study.	Seminars and presentation, quizzes every second week

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**
Introduction. Main characteristics of coastal zone.	6						**6**	**10**	Self-study of

The Beginning of (I-integrated) Coastal Zone Management. History of (I)CZM. Basics of (I)CZM.									mandatory material. There are mandatory and recommended readings in this course. Most of the material for the course will be available on Vilnius University Virtual Learning Environment system. A student will be required to assimilate the mandatory readings and material for assignments.
Methodologies of integration to CZM. Project process cycle. Participatory action. Assessment schemes. Participatory integrated assessment.	6						**6**	**10**	
Coastal zone vulnerability. Indicators and indices. Coastal zone vulnerability index. Dune vulnerability index.	6						**6**	**10**	
Coastal protection. Coastal Engineering: "Hard" and "soft" engineering: sea walls, embankments, groins, breakwaters, jetties. Beach nourishment, beach drainage, dune construction. Shore nourishment. Beach drainage. Dynamics, threats and management of dunes.	6						**6**	**10**	
Coastal governance. Coastal zone management. Integrated coastal zone management. Sustainable coastal management.	6						**6**	**10**	
Coastal management planning and strategies. Do nothing. Hold the line. Managed realignment. Move seaward. Limited intervention.	6						**6**	**11**	
Management programs. National programs and incentives. State/provincial programs. Regional commissions and plans. Local programs. Intergovernmental programs. Trusts and non-profit organizations.	6						**6**	**12**	
Global challenges in coastal zone management. Adaptation/Mitigation to Change in Coastal Systems.	6						**6**	**12**	
Total	**48**						**48**	**85**	

Assessment strategy	**Weight,%**	**Deadline**	**Assessment criteria**
Quizzes	40	During the semester	The quizzes are valued 5 points. (8 quizzes will be offered every second week; each quizzes comprise of 4-5 open questions) 5 points - quizzes done well. The questions answered correctly. 2.5 points - quizzes performed defective. The questions answered incorrectly. 0 points - quizzes is missing or incorrect. The questions are not answered. The maximum number of points – 40.
Seminars (Presentations the problem on seminars).	60	During the semester	Each student makes presentation (during the semester 8 presentations). 7.5 point. The presentation is high quality and comprehensive. Student clearly understands presented problem. They can answer questions from audience and participate in discussion. 3.75 point. The presentation is superficial or not well prepared or student not fully understands the problem. 0 points. The presentation is not demonstrated or is low quality. The maximum number of points – 60.
Final grade	100		Final grade is the sum of seminars and quizzes scores. 100-91 points – 10; 90-81 points – 9; 80-71 points – 8; 70-61 points – 7, 60-51 points – 6, 50-41 points – 5; 40-31 points – 4; 30-21points – 3; 20-11points – 2; 10-1 points – 1.

Author	**Year**	**Title**	**Issue of a periodical or volume of a publication**	**Publishing place and house or web link**
Mandatory reading				

Ahlhorn F.	2018	Integrated Coastal Zone Management Status, Challenges and Prospects	1	Springer Vieweg Wiesbaden
Jackson D., Short A.	2020	Sandy Beach Morphodynamics	1	Elsevier
Optional reading				
Schwartz. M. L. (ed.)	2005	Encyclopedia of Coastal Science.		Springer Verlag.
United States. Army. Corps of Engineers; Coastal Engineering Research Centre	1984.	Shore protection manual (SPM).		US Army Coastal Engineering Research Centre, Washington.