



METHODS AND TECHNIQUES OF UNDERWATER ECOLOGY MOD 2

Enrollment year	2018/2019
Academic year	2019/2020
Regulations	DM270
Academic discipline	FIS/03 (MATERIAL PHYSICS)
Department	DEPARTMENT OF EARTH AND ENVIRONMENTAL SCIENCES
Course	NATURAL SCIENCES
Curriculum	PERCORSO COMUNE
Year of study	2°
Period	(02/03/2020 - 12/06/2020)
ECTS	3
Lesson hours	30 lesson hours
Language	Italian
Activity type	WRITTEN TEST
Teacher	MINZIONI PAOLO (titolare) - 3 ECTS
Prerequisites	<p>Basic knowledge of physics (force, pressure, density, volume, speed)</p> <p>Basics water skills are required (floating without external supports, crawl, breaststroke)</p>
Learning outcomes	<p>KNOWLEDGE AND UNDERSTANDING: The course will explain how the water influences different physical phenomena as wave propagation, heat transmission and gas behavior</p> <p>APPLYING KNOWLEDGE AND UNDERSTANDING: One of the course targets is to develop students ability to apply the theoretical concepts explained during the lessons to scuba-diving.</p> <p>MAKING JUDGEMENTS:</p>

	<p>Students will develop the ability to analyze pros and cons of different behaviours in theoretical scenarios. Additionally they will also be asked to continuously self-evaluate their performance during the in-water practical activities</p> <p>COMMUNICATION: Specific attention will be paid to the use of proper terms in verbal communication, and at the same time the importance of clear gestural communication underwater will be highlighted</p> <p>LIFELONG LEARNING SKILLS: A fundamental target of the course is making the students able to adapt their behavior according to the events and to the possible changes of underwater conditions.</p>
Course contents	<p>The course is divided in three parts: lessons which will be carried out in the classroom, practical activities in the swimming pool, practical activities in the sea.</p> <p>Theoretical lessons will be dedicated to explain new concepts, while stressing their consequences for the practical activities.</p> <p>On the other side, practical activities will focus on two objectives: 1) Experimental demonstration of previously described phenomena 2) Giving the students all the information required to carry out underwater surveys in safety conditions</p>
Teaching methods	<p>Lessons: 16 h/year Practical activities: 14 h/year</p>
Recommended or required readings	<p>CMAS P1-Manual</p>
Assessment methods	<p>The exam is composed by a written text (multiple choice + open-ended questions). Improvements done during the practical activity in water will be subject to continuous evaluation</p>
Further information	
Sustainable development goals - Agenda 2030	<p>\$Ibl legenda sviluppo sostenibile</p>