UNIVERSITÀ DI TRENTO

universität innsbruck

STUDY PLAN MSc IN ENVIRONMENTAL METEOROLOGY
A.Y. 2024-25
(ex D.M. 270/04)

I YEAR												
I SEMESTER - Trento campus												
Code	***No.***	***Courses***	***Lecturers***	***SSD***	***CFU***	***B***	***C***	***D***	***E***	***F***	***Hours***	***Notes***
140531	1	Introduction to meteorology and climatology*		FIS/06	6	6					60	
140532	2	Enviromental Fluid Mechanics		ICAR/01	9	9					90	
140533	3	Environmental measurements		GEO/12	9	9					90	
140534	4	Environmental physical chemistry		CHIM/03	6	6					60	
				TOT Mandatory CFU I sem.	*30*	*30*	*0*	*0*	*0*	*0*		
II SEMESTER - Trento campus												
Code	***No-***	***Courses***	***Lecturers***	***SSD***	***CFU***	***B***	***C***	***D***	***E***	***F***	***Hours***	***Notes***
140571	5	Atmospheric boundary layer and turbulence		FIS/06	6	6					60	
140536	6	Numerical methods for environmental processes		MAT/08	6		6				60	
140587	7	Hydrology**		ICAR/02	6		6				60	
140538	8	Biosphere, atmosphere and climate interactions		BIO/07	6	6					60	
				TOT Mandatory CFU II sem.	*24*	*12*	*12*	*0*	*0*	*0*		
				Total I year	*54*	*42*	*12*	*0*	*0*	*0*		

II YEAR												
I SEMESTER Innsbruck campus												
Code	***No.***	***Courses***	***Lecturers***	***SSD***	***CFU***	***B***	***C***	***D***	***E***	***F***	***Hours***	***Notes***
140539	9	Atmospheric radiation and remote sensing		FIS/06	5	5					50	
140542	10	Reading, writing and presenting scientific contents			3					3	30	
140540	11	Atmospheric chemistry and biogeochemistry		BIO/10	6	6					60	
140541	12	Dynamical and synoptic meteorology		FIS/06	6	6					60	
				TOT Mandatory CFU II sem.	*20*	*17*	*0*	*0*	*0*	*3*		
II SEMESTER Trento/Innsbruck campus												
		MSc. Thesis and courses		***SSD***	***CFU***	***B***	***C***	***D***	***E***	***F***	***Hours***	***Notes***
140543		MSc. Thesis			30				30			
				TOT Mandatory CFU II sem.	30	17	0	0	30	0		
		Elective courses			16			16				
				Total I and II Year	**120**	59	12	16	30	3		

ELECTIVE COURSES												
		Elective courses	***Lecturers***	***SSD***	**16**			**16**			***160***	***Notes***
1st Year - II Semester - Trento campus												
140585		Air pollution modelling		FIS/06	6			6			60	
140586		Hydrological modelling		ICAR/02	6			6			60	
140607		Introduction to climate change		FIS/06	6			6			60	
140575		Tropical meteorology and climate		FIS/06	6			6			60	

2nd Year - I and II Semester - Innsbruck campus***												
140564	I Semester	Physics of the Climate System		FIS/06	5			5			50	
140566		Numerical Modelling of Weather and Climate		MAT/08	6			6			60	
140567		Climate and Cryosphere Modelling		FIS/06	3			3			30	
140714		Advanced weather forecasting course		GEO/12	5			5			45	
140574		Scientific Programming		ING-INF/05	5			5			50	
140565		Mountain Meteorology		FIS/06	5			5			45	
140606		Advanced Topics: Aviation Meteorology (alternate years)		FIS/06	4			4			30	
140570		Advanced Topics: Avalanches (alternate years)		ICAR/01	6			6			60	
140568	II Semester	Geostatistics		GEO/12	5			5			45	
140572		Cryosphere in the climate system		ICAR/02	5			5			50	
140715		Advanced Topics: Boundary Layer Meteorology		FIS/06	3			3			30	
140716		Advanced Topics: Visualizing scientific data		FIS/06	3			3			30	
140717		Advanced Topics: Numerical models in glaciology		FIS/06	3			3			30	
140718		Advanced Topics: Urban Meteorology		FIS/06	3			3			30	

* Students holding a BSc Degree in Ingegneria per l'Ambiente e il Territorio from the University of Trento who have taken "*Fondamenti di meteorologia e climatologia*" may substitute this course with one of the FIS/06 elective courses, i.e. either "*Air pollution modelling*", or "*Introduction to climate change*", or "*Tropical meteorology and climate*". This option if offered also to students holding other BSc who have taken basics of meteorology at BSc level: the modified study plan needs to be passed by the Education Commiteee, upon checking the contents of meteorology exams taken at BSc level.

** Students holding a BSc degree in Ingegneria per l'Ambiente e il Territorio from the University of Trento will have "Hydrology" by default substituted with "Hydrological modelling" in their study plan. This option if offered also to students holding other BSc who have taken basics of hydrology at BSc level: the modified study plan needs to be passed by the Education Commiteee, upon checking the contents of hydrology exams taken at BSc level.

*** the list of elective courses at the University of Innsbruck may be subject to changes from one Academic year to the other. When submitting the choice of elective courses in their study plan, students are recommended to check the most updated list of available courses at the web-page https://lfuonline.uibk.ac.at/public/lfuonline_lv.home [path: Faculty of Geo- and Atmospheric Sciences/Master's Programme Environmental Meteorology according to the curriculum 2018 (120 ECTS-Credits)/2nd Year of Study (University of Innsbruck)/Compulsory Modules (30 ECTS-Credits)