

STUDY PLAN MSc IN ENVIRONMENTAL METEOROLOGY

A.Y. 2022-23

(ex D.M. 270/04)

1st YEAR												
I SEMESTER - Trento campus												
Code	No.	Courses	Modules	SSD	CFU	B	C	D	E	F	Hours	Notes
140531	1	Introduction to meteorology and climatology*		FIS/06	6	6					60	
140532	2	Environmental 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. I sem.					30	30	0	0	0	0		
II SEMESTER - Trento campus												
Code	No.	Courses		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. II sem.					24	12	12	0	0	0		
TOT. 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
		MSc. Thesis			30				30			
TOT Mandatory CFU II sem.					30	17	0	0	30	0		
		Elective courses			16			16				
Total II Year					120	59	12	16	30	3		

Elective Courses												
		Elective courses			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 Semester - Innsbruck campus												
140564		Physics of the Climate System		FIS/06	5			5			50	
140565		Mountain Meteorology		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	
140568		Geostatistics		GEO/12	5			4,5			45	
140574		Scientific Programming		ING-INF/05	5			5			50	
140572		Cryosphere in the climate system		ICAR/02	5			5			50	
140570		Advanced Topics: Avalanches		ICAR/01	6			6			60	

* 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 is 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 Committee, 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 is 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 Committee, upon checking the contents of hydrology exams taken at BSc level.