

Study programme: **Environmental Data Science**

 Type of study: **Bachelor study program**

 Study form: **full time form of study**

 Guarantor: **Ing. Mgr. Ioannis Markonis, Ph.D.**

St. year: 1		2021/2022												
Code	Compulsory subjects	1st Semester winter						2nd Semester summer						Guarantee
		Le	Pr	FE	ECTS	Cr	Ex	Le	Pr	FE	ECTS	Cr	Ex	
ETZ04E	Algorithm Development	2	1	-	5	z	zk							Ing. Havránek, Ph.D.
ZVX112E	Earth System Sciences	2	2	-	5	z	zk							Ing. Mgr. Markonis, Ph.D.
ZGX118E	Fundamentals of Physical Geography	2	-	-	5	z	zk							Ing. Moravec, Ph.D.
ZVX103Z	Introduction to EDS	1	-	-	1	z								prof. Hanel
TAZ40E	Mathematics with Applications I	2	2	-	5	z	zk							doc. Jedlička
ZVX104Z	Productivity Tools	2	1	-	4	z								prof. Hanel
ZVX113E	Programming in R	2	1	-	4	z	zk							Mgr. Martínková, Ph.D.
ZVX114E	Exploratory Data Analysis							2	1	-	5	z	zk	Ing. Mgr. Markonis, Ph.D.
ZEX101E	Fundamentals of Ecology							2	1	-	5	z	zk	doc. Morelli
ZVX116E	Machine Learning							2	1	-	5	cr	ex	Ing. Havlíček, Ph.D.
TAZ41E	Mathematics with Applications II							2	2	-	5	z	zk	doc. Jedlička
ZVX115E	Meteorology and Climatology							2	-	-	5	z	zk	doc. Kyselý
ETZ03E	Programming in Python							1	2	-	4			Ing. Stočes, Ph.D.
<b>Σ</b>		<b>13</b>	<b>7</b>	<b>0</b>	<b>29</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>7</b>	<b>0</b>	<b>29</b>	<b>0</b>	<b>0</b>	<b>58</b>

Study programme: **Environmental Data Science**

 Specialization: **Informatics**

 Type of study: **Bachelor study program**

 Study form: **full time form of study**

 Guarantor: **Ing. Mgr. Ioannis Markonis, Ph.D.**

St. year: 2		2021/2022													
Code	Compulsory subjects	3rd Semester winter						4th Semester summer						Guarantee	
		Le	Pr	FE	ECTS	Cr	Ex	Le	Pr	FE	ECTS	Cr	Ex		
ZVX105Z	Advanced R Programming	1	2	-	5	cr									prof. Hanel
ZVX107E	Air Pollution	2	2	-	6	cr	ex								Mgr. D. Waldhauserová, Ph.D.
ZGX103E	Geographic Information Systems I	2	2	-	6	cr	ex								Msc. Malavasi, Ph.D.
ZVX108E	Hydrology	2	1	-	6	cr	ex								doc. Máca
ZVX115Z	EDS Seminar							2	-	-	3	cr			prof. Hanel
ETZ06E	Markup Languages							2	1	-	5	cr	ex		Ing. Vasilenko, Ph.D.
ETZ07E	Programming							2	1	-	5	cr	ex		Ing. Stočes, Ph.D.
ZGX106E	Remote Sensing I							2	2	-	6	cr	ex		Ing. Moravec, Ph.D.
ZGX109E	Statistics							2	2	-	6	cr	ex		RNDr. Hrach, Ph.D.
	Optional subjects (min. 15 ECTS)										15				
<b>Σ</b>		<b>7</b>	<b>7</b>	<b>0</b>	<b>23</b>	<b>4</b>	<b>3</b>	<b>10</b>	<b>6</b>	<b>0</b>	<b>40</b>	<b>5</b>	<b>4</b>		<b>63</b>

 Study programme: **Environmental Data Science**

 Specialization: **Informatics**

 Type of study: **Bachelor study program**

 Study form: **full time form of study**

 Guarantor: **Ing. Mgr. Ioannis Markonis, Ph.D.**

St. year: 3		2021/2022													
Code	Compulsory subjects	3rd Semester winter						4th Semester summer						Guarantee	
		Le	Pr	FE	ECTS	Cr	Ex	Le	Pr	FE	ECTS	Cr	Ex		
ETZ05E	JavaScript	2	1	-	5	cr	ex								Ing. Masner, Ph.D.
ETZ08E	Web Design	2	1	-	5	cr	ex								Ing. Šimek, Ph.D.
ZXX101Z	Bachelor Thesis WS	-	-	-	5	cr									Supervisor
ZXX109Z	Bachelor Thesis SS							-	-	-	25	cr			Supervisor
	Optional subjects (min. 25 ECTS)				15						10				
<b>Σ</b>		<b>4</b>	<b>2</b>	<b>0</b>	<b>30</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>35</b>	<b>1</b>	<b>0</b>		<b>65</b>

Study programme: **Environmental Data Science**

 Specialization: **Informatics**

 Type of study: **Bachelor study program**

 Study form: **full time form of study**

St. year: 2		2021/2022												
Code	Optional subjects	3rd Semester winter						4th Semester summer						Guarantee
		Le	Pr	FE	ECTS	Cr	Ex	Le	Pr	FE	ECTS	Cr	Ex	
ZVX107Z	Big Data Analysis and Cloud Computing in R							2	1	-	5	cr	ex	prof. Hanel
ZVX114Z	Hydroclimatological Data Analysis							2	1	-	5	cr	ex	Ing. Rakovec, Ph.D.
ETZ09E	Operating systems and computer networks							2	1	-	5	cr	ex	Ing. Vaněk, Ph.D.
EIZ06E	Software Engineering							2	1	-	5	cr	Ex	prof. Vrana

 Study programme: **Environmental Data Science**

 Specialization: **Informatics**

 Type of study: **Bachelor study program**

 Study form: **full time form of study**

St. year: 3		2021/2022												
Code	Optional subjects	5th Semester winter						6th Semester summer						Guarantee
		Le	Pr	FE	ECTS	Cr	Ex	Le	Pr	FE	ECTS	Cr	Ex	
ZGX107Z	Cloud-computing and Analysis of Environmental	1	2	-	4	cr								doc. Šmejda
EIZ01E	Component-based SW Development	2	1	-	5	cr	ex							Ing. Brožek, Ph.D.
EIZ02E	Database Systems	2	2	-	5	cr	ex							doc. Vostrovský
EIZ03E	Human Computer Interaction	2	1	-	5	cr	ex							Ing. Pavlíček, Ph.D.
EIZ04E	Interaction Design	2	1	-	5	cr	ex							Ing. Pavlíček, Ph.D.
ZVX110Z	Interactive Web Visualization for Hydroclimatological Data	2	1	-	5	cr								Ing. Horáček, Ph.D.
EIZ05E	UNIX Operating Systems	2	1	-	5	cr	ex							doc. Veselý