Department of Information Sciences at the University of Zadar

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Undergraduate and Graduate Courses in English (Academic year 2021/2022 – Winter Semester > October '21 – January '22)

LECTURERS	COURSE TITLE	SEMESTER	ECTS	LEVEL				
Assoc. Prof. Josip Ćirić,	INTRODUCTION TO	W	6	BA				
Ph.D.	LOGIC							
Assist. Prof. Krešimir	INTRODUCTION TO	W	6	BA				
Zauder, Ph.D.	PROGRAMMING	**	U	DA				
Assoc. Prof. Marijana Tomić, Ph.D.; Assitants: Nevenka Kalebić, Laura Grzunov	DIGITAL HUMANITIES	W	6	MA				
Assoc. Prof. Josip Ćirić,	PHILOSOPHY OF	W	6	MA				
Ph.D.	INFORMATION	· · · · · · · · · · · · · · · · · · ·		1,11				
TOTAL ECTS 24								
W = winter sem., S = summe	er sem., BA – undergraduate study,	MA – graduate Study	$W = winter\ sem.,\ S = summer\ sem.,\ BA - undergraduate\ study,\ MA - graduate\ Study$					

$\label{lem:courses} Undergraduate\ and\ Graduate\ Courses\ in\ English\ (Academic\ year\ 2021/2022-Summer\ Semester> March-June\ '22)$

LECTURERS	COURSE TITLE	SEMESTER	ECTS	LEVEL
Assist. Prof. Krešimir Zauder, Ph.D.	DATABASE DESIGN	S	6	BA
Assoc. Prof. Marijana Tomić, Ph.D.; Assistant: Laura Grzunov	OLD BOOKS DESCRIPTION AND ACCESS SYSTEMS	S	6	BA
Assoc. Prof. Josip Ćirić, Ph.D.	INTRODUCTION TO COGNITIVE SCIENCE	S	6	BA
Assoc. Prof. Josip Ćirić, Ph.D.	INFORMATION ETHICS	S	6	MA
Assist. Prof. Ante Panjkota, Ph.D.	DATA MINING	S	6	MA
Full Prof. Ivanka Stričević, Ph.D. Assistants: Mate Juric, Ph.D., Alica Kolarić, Ph.D., Nikolina Peša Pavlović	HUMAN INFORMATION BEHAVIOR	S	6	MA
TOTAL ECTS			36	

Department	Department of Information Sciences						
Courses	offered in a foreig	n lanş	guage in	the academi	c year 20	021/20)22
Title of the course	Introduction t	Introduction to Logic					
Name of the teacher							
Number of ECTS credits	6	6 Semester ⊠ autumn/winter □ spring/summe					
The courses will	Lectures		Semina	rs		Exer	cises
be organized as	⊠ yes □ no)	□ yes	\square no		\boxtimes ye	es 🗆 no
Description of the course	Students are introduced to classical logic as well as propositional and predicate calculus. Dealing with logic calculus syntax is considered fundamental to acquiring basic topics of scientific methodology, statistical reasoning, computer architecture and programming						
Learning outcomes of the course	By the end of course, students are expected to: • be acquainted with general history of logic; • be able to read formulas in propositional and predicate calculus; • use methods of reductio ad absurdum, truth tables, and derivations in propositional calculus; • use method of truth tables in predicate calculus						
The course is offered to	Incoming student department as a h				\boxtimes] yes	\square no
	All the incoming chosen home dep		_		×	yes	\square no
	UNIZD students department as an] yes	⊠ no
	All UNIZD stude	nts as	an elect	ive course] yes	\boxtimes no
The course will be	No						
offered for	Only if the fronta	l (live	e) teachin	g will not be	possibl	e	\boxtimes
distance learning (virtual mobility)	Together with the frontal (live) teaching						

Department	Department of Information Sciences
Courses	s offered in a foreign language in the academic year 2021/2022
Title of the course	Introduction to Programming
Name of the teacher	Krešimir Zauder, Assistant Professor

Number of ECTS credits	6	Sem	nester	⊠ autumn/	winter		spring/summer
The courses will	Lectures		Semina	rs		Exer	cises
be organized as	⊠ yes □ no)	□ yes	\square no		$\boxtimes y$	es 🗆 no
Description of the	The goal of the co	ourse	is to teac	h fundament	al progr	ammi	ng skills which
course	are applicable to a	a wide	e array o	f languages a	ınd prob	lems.	
	As the fundamental way of giving instructions to the computer, programming teaches both basic computer knowledge as well as empowers the students to solve many computer-solvable problems in a versatile and adaptable manner. Furthermore, program ming teaches critical thinking as related to domain specific problems rather than just the usage of premade solutions. The language of choice for this course is Python, which is both very popular as the first programming language and as the swiss army knife of programming languages. Python is used in a wide array of computer						
	related problems and is especially popular as relating to data programming which goes well with the broader goal of educating information experts.						
Learning outcomes of the course	After successfully passing this course, students will: • understand basic programming concepts: programming, programming language, algorithm, application • understand and know how to use basic concepts in programming: value, type, variable, operator, function, conditional, loop • be able to recognise problems that are easily solved by programming • be able to write a simple python script/program						
The course is offered to	Incoming students department as a h				×] yes	□ no
	All the incoming chosen home department	stude	nts regar	dless of the] yes	⊠ no
	UNIZD students enrolled at the above department as an elective course □ yes □ no						⊠ no
	All UNIZD stude	nts as	an elect	ive course] yes	⊠ no
The course will be	be No [
offered for distance learning	Only if the fronta	l (live	e) teachin	g will not be	possibl	e	\boxtimes
(virtual mobility)	Together with the	front	tal (live)	teaching			

Department	Department of Information Sciences
Courses	offered in a foreign language in the academic year 2021/2022

Title of the course	Digital Humanities							
Name of the		Marijana Tomić, Ph.D., Associate Professor						
teacher	Nevenka Kalebić	•						
	Laura Grzunov, R							
Number of ECTS	6					. ,		
credits		Semester	⊠ autumn/v	winter	☐ spr	ring/summer		
The courses will	Lectures	Semir	nars		Exercis	es		
be organized as	⊠ yes □ no	o 🗆 yes	s 🗆 no		⊠ yes	□ no		
Description of the	The content of thi	is course incl	udes:					
course	• study of b	study of basic theoretical literature on digital humanities, its						
	theory and practic			C				
	Concept o	f institutiona	lization of a ne	ew field	, digital l	humanities.		
	Methodolo	 Methodologies of research in digital humanities. 						
	 Textual re 	Textual research in digital environment.						
			ıd visual taggi	_		lark).		
		~ .	nd digital codi	cology.				
		Digital archaeology.						
	•	y in Digital h		•,•				
	-		l Digital huma			:		
	_	manities and	information a	na com	mumicaui	on sciences		
		ion of data ir						
			its re-use in h	umaniti	es			
		n humanities		amami	Co.			
		on in humani						
	_		conducted in	the field	d of digita	al		
	humanities							
	Insight at the proj	_		id rare r	naterial c	onducted at		
	the Department of							
	Draft proposal of							
Learning outcomes	Students will be able to understand:							
of the course	1 *	 theory and practice of digital humanities 						
	 methodology 		n humanities b	ased on	the princ	ciples of		
	information te							
	 fields of digita 	al humanities	(digital palae	ography	, codico	logy, art		
	history, archae	eology, musi	cology, etc.)					
	• relation within	n Digital hun	nanities and lib	oraries				
	 Projects condu 	ucted in digit	al humanities	fields				
	Comparative a	advantages o	f research and	present	ation of	linguistic		
	corpus in digi	tal environm	ent					
	Bases of textu	al editing (T	EI, visualizatio	on)				
	Visualization of in							
The course is	Incoming student		e the above	<u> </u>				
offered to	department as a h			×] yes	□ no		
	All the incoming			□	1 100			
	chosen home depa	artment at U	NIZD] yes	□ no		
	UNIZD students	enrolled at th	e above] yes	⊠ no		

	department as an elective course		
	All UNIZD students as an elective course	□ yes	⊠ no
1110 000150 11111 00	No		
offered for	Only if the frontal (live) teaching will not be	e possible	\boxtimes
distance learning (virtual mobility)	Together with the frontal (live) teaching		

Department		Department of Information Sciences						
Courses	s offered in a foreig	n lan	guage in	the academic	c year 20	021/20)22	
Title of the course	Philosophy of	Philosophy of Information						
Name of the teacher	Josip Ćirić							
Number of ECTS credits	6	Semester ⊠ autumn/winter □ spring/summer						
The courses will	Lectures		Semina	ırs		Exer	cises	
be organized as	□ yes □ no	0	□ yes	□ no		□ ye	es 🗆 no	
Description of the course Learning outcomes of the course	Philosophy of information seeks to clarify conceptual issues found in the intersection of the information sciences, philosophy and cognitive sciences. Students will encounter topics such as naturalized theory of information, computational approach to information and logic, complexity, identity and information, privacy, inforgs, ecological theory of information etc. By the end of the course, students are expected to: • Be acquainted with the basic conceptual issues in the information sciences and their relation to the philosophy • Identify and describe the basic approach to understand the concept of the information • Identify and describe the basic issues in the philosophy of							
The course is offered to	information Incoming student department as a h	s who			×	yes	□ no	
	All the incoming chosen home dep		_] yes	□ no	
	UNIZD students enrolled at the above department as an elective course					□ no		
	All UNIZD stude	nts as	an elect	ive course] yes	\square no	
The course will be	No							
offered for	Only if the fronta	l (live	e) teachir	ng will not be	e possibl	le	\boxtimes	
distance learning (virtual mobility)	Together with the	Fogether with the frontal (live) teaching □						

Department	Department of Information Sciences						
Courses	Courses offered in a foreign language in the academic year 2021/2022						
Title of the course	Database Desig	Database Design					
Name of the teacher	Krešimir Zauder,		ant Professor				
Number of ECTS credits		Semester □ autumn/winter □ spring/s					
The courses will be organized as	Lectures □ no	Semina U yes	ars \Box no		Exerc ye		
Description of the course	The goal of the co	The goal of the course is to teach the fundamentals of structuring digital data for long term management and analysis.					
	database managen data. The main par practical considera broader subjects to required for differ During the course	The central technology for data in this respect in the computer age are the database management systems and specifically the relational model of data. The main part of the course is dedicated to the concepts and practical considerations of the relational model but it also teaches broader subjects to enable students to recognise various data needs as required for different goals and tasks. During the course, students will primarily work with PostgreSQL, MongoDB and SQLite database systems but other software will also be					
Learning outcomes of the course	After successfully passing this course, students will: understand the basic principles of organization of structured data in the digital environment understand several models of data organization as well as the difference between types of databases and appropriate use be able to design an entity relationship data model be able to implement a relational database be able to write SQL queries be able to implement a document oriented database						
The course is offered to	Incoming students department as a ho			\boxtimes	yes	\square no	
	All the incoming s	students rega	dless of the		yes	⊠ no	
	UNIZD students e department as an e	enrolled at the	above		yes	⊠ no	
	All UNIZD studer	nts as an elect	ive course		yes	⊠ no	
The course will be	No						
offered for	Only if the frontal	(live) teaching	ng will not be	e possible	e	\boxtimes	
distance learning	Together with the frontal (live) teaching						

(virtual mobility)	

Department		Department of Information Sciences				
Courses offered in a foreign language in the academic year 2021/2022						
Title of the course	Old Books Des	cription an	d Access Systems	5		
Name of the	Marijana Tomić, I	Ph.D., Associa	ate Professor			
teacher	Laura Grzunov, te	eaching assista	ant			
Number of ECTS	6	Semester	☐ autumn/winter	⊠ spring/summer		
credits		Semester		⊠ spring/summer		
The courses will	Lectures	Semina	ırs	Exercises		
be organized as	\boxtimes yes \square no	\Box yes	\square no	\boxtimes yes \square no		
Description of the course	 Introduction t Analytical bib Specificities of description Printed and or material Projects of dematerial –intr Content and r Standards and material – ISI Authority cont Machine reada UNIMARC – Applying con and rare mate 	to codicology bliography and of old and rarenline catalogorescribing, digroduction to I material describing for bit BD trol in the contable catalogui UNIMARC/Esceptual moderial	t and old and rare may, typography and billingraphical are material in the concues and databases of itization and research Digital humanities proposed in the concurrence of old and rare may old rare material colle	bliography nalysis ntext of its f old and rare ch of old and rare rojects re material ion of old and rare material aterial using organization of old		
Learning outcomes	Students will be able to:					
of the course			m new material			
	I	ms in the field	l: codicology, bibliog	graphy, information		
	organization					
			old and rare material			
				re material, as well as		
	_	s organization	i, evaluation, descript	tion, registration and		
	preservation	ocificities of d	locarintian of old and	I roro motorial both		
	manuscript and		lescription of old and	raic maichal, bom		
	_		printed printed and online cat	alogues of old and		
	rare material	m something p	Times and ominic cat	arogues or ord und		
		wledge of des	cription of old and ra	re material in the		
			nodels – IFLA – LRI			
		-	d and rare material in			

The course is offered to	Incoming students who choose the above department as a home department	⊠ yes	□ no
	All the incoming students regardless of the chosen home department at UNIZD	⊠ yes	□ no
	UNIZD students enrolled at the above department as an elective course	⊠ yes	□ no
	All UNIZD students as an elective course	□ yes	⊠ no
The course will be	No		
offered for	Only if the frontal (live) teaching will not be	e possible	\boxtimes
distance learning (virtual mobility)	Together with the frontal (live) teaching		

	_					
Department	Department of Information Sciences					
Courses	s offered in a foreig	gn lang	guage in	the academic year 20	021/2022	
Title of the course	Human Inforn	natio	n Beha	vior		
Name of the	Ivanka Stričević,	Ph.D.	., Full Pr	ofessor		
teacher	Mate Juric, Ph.D.					
	Alica Kolarić, Ph					
), 1 1 2 C C C C	Nikolina Peša Pa	vlov1ć			T .	
Number of ECTS credits	6	Sem	ester	☐ autumn/winter	⊠ spring/s	summer
The courses will	Lectures		Semina	irs	Exercises	
be organized as	\boxtimes yes \square no	0	\square yes	□ no	⊠ yes	\square no
Description of the	The content of the	is cou	rse inclu	des:		
course				nd models in Human	Information	
	Behaviour (H					
			ork for u	understanding of user	r information	needs
	in various cor		4:			
	Typology of iInformation n			ers duals and groups		
				rmation needs and be	shaviour ralat	ed to
	particular con		and mio	illiation needs and be	mavioui ieiai	eu io
	-		s and me	thodology used in H	IB research	
				rmation services and		
	_			ries and research res		ee
	 Participation in group discussions about the HIB related issues 					
	 Presentation of students' drafts of pilot research studies 					
Learning outcomes	Students will be a	able to):			
of the course	_	_		proaches in users' inf	formation nee	ds and
	behaviour theories and studies					
	_			field and interpret it t	-	
	_			human information		
	 Describe major theories of information behaviour and identify 					

	leading authors						
	Explain information needs and behaviour related to particular context						
	of information usage						
	 Recognize and explain characteristics of 	systems and s	services based				
	on the concept "meeting user needs "						
	 Apply knowledge on HIB to the needs o users 	f potentially d	isadvantaged				
	• Describe and compare information behavior	viour connecte	ed to				
	information institutions with information seeking for everyday life purposes						
	Apply appropriate methodology in user needs and behaviour studies						
	• Create and apply research instruments for	• Create and apply research instruments for pilot user studies					
The course is	Incoming students who choose the above	⊠ yes	Ппо				
offered to	department as a home department	⊠ yes	□ no				
	All the incoming students regardless of the chosen home department at UNIZD						
	UNIZD students enrolled at the above		∇ no				
	department as an elective course	□ yes	⊠ no				
	All UNIZD students as an elective course ☐ yes ☐ no						
The course will be	No \square						
offered for	Only if the frontal (live) teaching will not be possible						
distance learning (virtual mobility)	Together with the frontal (live) teaching						

Department	Department of Information Sciences						
Courses offered in a foreign language in the academic year 2021/2022							
Title of the course	Data Mining						
Name of the teacher	Ante Panjkota, Ph	ı.D., <i>I</i>	Assistant	Professor			
Number of ECTS credits		Sem	ester	☐ autumn/winter	\boxtimes	spring	g/summer
The courses will	Lectures		Semina	ars	Exercises		
be organized as	⊠ yes □ no)	□ yes	□ no	\boxtimes	yes	□ no
Description of the course	Byes □ no □ yes □ no □ yes □ no □ yes □ no □ no □ yes □ yes □ no □ yes □ yes □ yes □ no						

	conducted experiments, students are finishing almost the whole cycle of the research process. With this course concept, students are qualified for applying data mining techniques as a complementary research method in their master thesis.					
Learning outcomes of the course	 By the end of the course, students will be able to: Describe basic tasks in the data mining Explain the principles of the data mining classification algorithms, regression algorithms, clustering algorithms, and association rules algorithms Choose an appropriate data mining model for the task of interest Formulate problems suitable for solving by using data mining techniques Define relevant measure of quality for data mining model evaluation Plan, design and carry out the data mining experiments Use WEKA data mining environment to perform data mining experiments Visualize and interpret results obtained from data mining experiments 					
The course is offered to	Incoming students who choose the above department as a home department	⊠ yes	\square no			
	All the incoming students regardless of the chosen home department at UNIZD	□ yes	⊠ no			
	UNIZD students enrolled at the above department as an elective course □ yes □ no					
	All UNIZD students as an elective course	□ yes	⊠ no			
The course will be	No					
offered for	Only if the frontal (live) teaching will not be possible					
distance learning (virtual mobility)	Together with the frontal (live) teaching					

Department	Department of Information Sciences					
Courses offered in a foreign language in the academic year 2021/2022						
Title of the course	Introduction t	o Co	gnitive	Science		
Name of the teacher	Josip Ćirić					
Number of ECTS credits	6	Sem	nester	□ autumn/winter	⊠ sprii	ng/summer
The courses will	Lectures		Semina	ars	Exercises	S
be organized as	⊠ yes □ no	O	□ yes	\square no	□ yes	\square no
Description of the course	Cognitive science is a cluster of philosophy, neuroscience, psychology, linguistics, computer science and cognitive anthropology. It is strongly connected with development of computers and artificial intelligence, and it is of use to develop interdisciplinary contextualization for information					

	science students.					
Learning outcomes of the course	By the end of the course, students are expected to: • be acquainted with general characteristics of each of six compound- sciences that form cognitive science; • be acquainted with interdisciplinary approach to the concept of mind and its faculties; • be capable to link knowledge gathered in this course with other related information science courses, like user studies, logic, and computer related skills					
The course is offered to	Incoming students who choose the above department as a home department	⊠ yes	\square no			
	All the incoming students regardless of the chosen home department at UNIZD	⊠ yes	□ no			
	UNIZD students enrolled at the above department as an elective course					
	All UNIZD students as an elective course	□ yes	□ no			
The course will be	No					
offered for	Only if the frontal (live) teaching will not be possible					
distance learning (virtual mobility)	Together with the frontal (live) teaching					

Department of Information Sciences						
Courses offered in a foreign language in the academic year 2021/2022						
ormation Ethics	6					
p Ćirić						
Sen	Semester □ autumn/wint		⊠ spring/summer			
tures	Semina	irs	Exercises			
res 🗆 no	⊠ yes	□ no	□ yes □ no			
Students are introduced to basic issues of morality considering information-communication technology (ICT), like digital divide, intercultural ethics, ecological analogy, infosphere agents, etc. Starting from classical ethical theories, students are presented with viable approaches to social and ethical implications of ICT. An interdisciplinary approach including philosophy, sociology and philosophy is used						
By the end of the course, students are expected to: • be able to identify and analyze the role of ICT and related ethical issues; • be acquainted with standard and non-standard models in moral theory; • be acquainted in applicability of information ethics in						
֡֡֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜	rmation-communic rcultural ethics, econ classical ethical troaches to social ar roach including phi the end of the cours be able to ident es; be acquainted vory; be acquainted in	rmation-communication tectrcultural ethics, ecological and classical ethical theories, stoaches to social and ethical toach including philosophy, the end of the course, studen be able to identify and a tes; be acquainted with stancory; be acquainted in applica	rmation-communication technology (ICT), like of rcultural ethics, ecological analogy, infosphere an classical ethical theories, students are presented roaches to social and ethical implications of ICT roach including philosophy, sociology and philothe end of the course, students are expected to: be able to identify and analyze the role of IC es; be acquainted with standard and non-standardry;			

The course is offered to	Incoming students who choose the above department as a home department	⊠ yes	□ no
	All the incoming students regardless of the chosen home department at UNIZD	⊠ yes	□ no
	UNIZD students enrolled at the above department as an elective course	□ yes	□ no
	All UNIZD students as an elective course	□ yes	□ no
The course will be	No		
offered for	Only if the frontal (live) teaching will not be		
distance learning (virtual mobility)	Together with the frontal (live) teaching		