Attach	nment no. 3	Co	urse pr	ogra	nm of the first, second and thi	ırd cyc	le of studies				
1.	Course title	•	MUTAGENIC AND CARCINOGENIC SUBSTANC IN FOOD								
2.	Code				ITHN-24						
3.	Student program				Innovative technologies on	Innovative technologies on food and nutrition					
4.	Organiser of the stuinstitute, department	nt)		ınit,	Faculty of Technology and Technical Science						
5.	Degree (first, secon	d, third c	ycle)		Third cycle						
6.	Academic year/ semester				1 / II		Number of ECTS redits	5			
8.	Professor	Vonr.prof.d-r Gorica Pavlovska Vonr.prof.d-r Angela Vasileska									
9.	Preconditions for e	Preconditions for enrolling on the  II (second) cycle of studies									
10.	Objectives of the co	ourse prog	gram (co	ompe	etences)						
	Contents of the course program  Mutagenic and carcinogenic substances in human food. Creation of mutagenic and carcinogenic substances in food in their production, processing and storage (mutagenic substances from GMA furan, acrylamide, oxidation products of fats and oils, trans fatty acids, polycyclic aromatic hydrocarbons). Mutagenic and carcinogenic substances in food coming from the environment (heavy metals, dioxins, biphenyls). Microbial toxins (alfatoxin, ochratoxin, zearalenone, trichothecene). Consequences of the action of mutagenic and carcinogenic substances in food. A strategy for reducing the toxicity of mutagenic and carcinogenic substances in food and protection										
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18.				IIn to 50 naints	5 (Gra) (E)			
	Assessment criteria (points/grade)			Up to 50 points	5 (five) (F)			
				from 51 to 60 points	6 (six) (E)			
				from 61 to 70 points	7 (seven) (D)			
	(point	s/grauc	,	from 71 to 80 points	8 (eight) (C)			
				from 81 to 90 points	9 (nine) (B)			
10				from 91 to 100 points 10 (ten) (A)				
19.		ition for g the fina	getting a signature and al exam					
20.	Teach	ing lang	guage	Macedonian (if there is English)	s a necessity it car	ne teach in		
21.	Metho teachi		onitoring the quality of					
22.	Literature							
	22.1	Compulsory literature						
		Num ber	Author	Title	Publisher	Year		
		1.	J.P.F.D' Mello	Food Safety Contaminants and toxins	CABI Publishing	2003		
		2.	B.Sarkanj, D. Kipcic, Đ. Vasic-Racki, F.Delas, K.Galic, M.Katalenic, N.Dimitrov, T.Klapec	Kemijske i fizikalne opasnosti u hrani	Hrvatska agenija za hrana, Osiek	2010		
		3	Scot Frickel	Chemical consequences: environmental mutagens, scientist activism and the rise of the genetic toxicology	Rutgers University Press, Book News Inc, Portland, ORUSA	2004		
		Additional literature						
	22.2	Num ber	Author	Title	Publisher	Year		
		1.	Frank C. Lu	Lu's Basic Toxicology	Taylor & Francis e-Library,	2003		
		3.						