

DIGITAL BUSINESS INFORMATICS - SECOND CYCLE OF STUDIES

Table 1.

IX semester

Code	Course	Classes	ECTS	Workload
CS501	Intelligent Systems	2+2+0	7	210
NT501	Methodology of NIR	2+2+0	6	180
One elective course from the following list of items (University elective courses)				
MG501	Strategic Management	2+2+0	5	150
MG502	Management with Computer Centers	2+2+0	5	150
One elective course from the following list of items (University elective courses)				
CS502	Modeling and Simulation	2+2+0	5	150
MG503	Management Information Services	2+2+0	5	150
SE501	Bases of knowledge and semantic Web	2+2+2	7	210
Total		22	30	900

X semester

Code	Course	Classes	ECTS	Workload
MG512	Theory of Decision	2+2+0	6	180
CS511	Systems Based on Knowledge	2+2+0	7	210
	Master Thesis	12	12	360
One elective course from the following list of items (University elective courses)				
IS511	Strategic Planning for Information Systems	2+2+0	5	150
NT511	Intellectual Property	2+2+0	5	150
MG511	Controlling	2+2+0	5	150
Total		24	30	900

Table 2.

No.	Study program-subprogram	Duration of study (years) / ECTS	Total number / percentage of teaching subjects	Number / percentage of core courses in the group (60%)	Number / percentage of elective courses group (30%)	Number / percentage of elective courses group (10%)
1.	Digital Business Informatics, first cycle (eight semesters)	4 year 240 ECTS	40 100%	24 60%	8 20%	8 20%
2.	Digital Business Informatics, second cycle (two semesters)	1 year 60 ECTS	8 100%	4 50%	2 25%	2 25%

In Table 3 is given a list of free elective courses proposed by each separate unit of the University, from which can be choosed only one course program.

Table 3. List of free elective teaching subjects proposed by each unit of the university, i.e. University elective courses

No.	Course programs (teaching courses)	ECTS
1.	English Language 1	5
2.	German Language 1	5
3.	English Language 2	5
4.	German Language 2	5
5.	Academic Writing	5
6.	History of Civilizations	5
7.	Sociology	5
8.	Accounting	5
9.	Financial Management	5
10.	Digital Society	5
11.	Law of E-commerce	5
12.	Network Operating Systems	5
13.	Human - Computer Interfaces (HCI)	5
14.	Data Mining	5
15.	Quality and Measurement in Informatics	5
16.	Modeling of Business Processes	5
17.	Management of Production Processes	5
18.	Product Management	5
19.	Modeling and Simulation	5
20.	Management Information Services	5

From Table 3, students chooses courses from the university list of free elective courses proposed by each unit of the university according to the structure of university studies, especially to meet the elective 10% under article 99 from the Law of Higher Education.

In Table 4 are proposed mandatory course programs for the program Digital Business Informatics.

Table 4. Study subprogram Digital Business Informatics

No.	Mandatory course programs (courses)	ECTS
1.	Bases of Economics	6
2.	Information Technology	5
3.	Mathematics	8
4.	Programming I	6
5.	Internet Technologies	5
6.	Statistics	8
7.	Financial Mathematics	6

8.	Algorithms and Data Structures	6
9.	Principles of Management	5
10.	WEB design and development	6
11.	Programming II	6
12.	Operating Systems	6
13.	Business Law	6
14.	Database Systems	7
15.	Computer Networks	7
16.	Operations Research	6
17.	Software Engineering	6
18.	Design of Information Systems	7
19.	Security of Computer Systems	6
20.	Systems Theory	6
21.	Distributed and Object Database Systems	7
22.	System Requirements	5
23.	Distributed computing systems	6
24.	Advanced WEB Development	6
25.	Intelligent Systems	7
26.	Methodology of NIR	6
27.	Bases of knowledge and semantic Web	7
28.	Theory of Decision	6
29.	Systems Based on Knowledge	7

In Table 5 are proposed faculty elective courses programs for Digital Business Informatics program, intended from I to X semester. From the list of proposed course programs (teaching courses) are selected course programs according university studies structure.

Table 5. List of elective study programs for study subprogram Digital Business Informatics.

No.	Course programs (courses)	ECTS
1.	Management Economy	5
2.	Digital Commerce	5
3.	Multimedia	5
4.	Management of small business	5
5.	Management of human resources	5
6.	Business Communication and Ethics	5
7.	Business Processes	6
8.	Project Management	6
9.	Network Operating Systems	6
10.	Human - Computer Interfaces (HCI)	6
11.	Data Mining	6

12.	Product Information Systems	5
13.	MIS (Management Information Systems)	5
14.	Information systems for environmental protection	5
15.	Business Information Systems	5
16.	Organizational Behavior	5
17.	Entrepreneurship	5
18.	Strategic Management	5
19.	Management with Computer Centers	5
20.	Strategic Planning for Information Systems	5
21.	Intellectual Property	5
22.	Controlling	5

NOTE: Rules are defined for activating of courses programs in direction for the regular program to be realized only when, on the subject programs are registered at least 5 students. When the number of students is less than 5, mentoring classes are organized.

According to the Law on Higher Education and the University Statute lectures are held in Macedonian and English.