Attachment 2 - Curriculum of Joint Bachelor's Program

Computer Engineering Curriculum IU - IUS

International University of Sarajevo, Faculty of Engineering and Natural Sciences (FENS)
Undergraduate Curriculum - Computer Sciences and Engineering Program
Academic Year: 2022-2023
Click on the course code or title to see its syllabus.

Semester I

Code	Title	Prerequisites	T	P	ECTS
ELIT100	Academic English and Effective Communication		2	1	6
MATH101	Calculus I		3	2	6
CS103	Introduction to Programming		3	2	6
NS102	Physics		3	2	6
ENS101	Introduction to Engineering		2	1	3
xxx	Foreign Language Elective I		0	2	3
		Semester Total =			30

Semester II

Code	Title	Prerequisites	T	P	ECTS
ELIT200	Critical Reading and Writing		2	1	6
CS105	Advanced Programming	CS103	3	2	6
MATH102	Calculus II	MATH101	3	2	6
MATH201	Linear Algebra	MATH101	3	2	6
xxx	University Elective I *	See Table 1			3
xxx	Foreign Language Elective II	For. Lang. Ele. 1	0	2	3
		Semester Total =			30

Semester III

Code	Title	Prerequisites	T	P	ECTS
MATH203	Introduction to Probability and Statistics	MATH101	3	2	6
MATH204	Discrete Mathematics		3	2	6
xxx	Faculty Elective I	See Table 2			6
CS206	Data Structures	CS105	3	2	6
MATH202	Differential Equations	MATH102	3	2	6
		Semester Total =			30

Semester IV

Code	Title	Prerequisites	T	P	ECTS
ENS203	Electrical Circuits I	MATH101	3	2	6
CS304	Computer Architecture	CS105	3	2	6
MATH205	Numerical Analysis	MATH102	3	2	6
CS306	Database Management	CS105	3	2	6
CS207	Analysis of Algorithms	CS201 and MATH204	3	2	6
		Semester Total =			30

Elective Pools

Table 1: University Electives					
Code	**Title**	**Prerequisites**	**T**	**P**	**ECTS**
Social Sciences Subpool					
CULT101	Understanding Cultural Encounters		2	0	3
NS111	Understanding Nature and Knowledge		2	0	3
NS112	Understanding Science and Technology		2	0	3
SPS140	Understanding Religion		2	0	3
ECON105	Understanding Business		2	0	3
ECON107	Python		1	1	3
ECON108	Matlab		1	1	3
ECON111	Introduction to Microeconomics		3	0	6
ELIT101	Introduction to Literature		2	1	6
HUM100	Social Responsibility and Sustainable Development		2	0	3
IR101	Introduction to International Relations		3	0	6
MAN102	Management		3	0	6
POLS102	Introduction to Political Science		3	0	6
PSY103	Introduction to Psychology		3	0	6
SOC102	Introduction to Sociology		3	0	6
SPS103	Law and Ethics		3	0	6
SPS120	Critical Thinking		3	0	6
SPS150	World History		3	0	6
VA121	History of Art I		3	0	6
Language Elective Subpool					
xxx	Foreign Language Elective I **(&)**		2	0	3
xxx	Foreign Language Elective II **(&)**	For. Lang. Ele. 1	2	0	3

(&) *Scholarship students will take either Turkish Language I and II or Bosnian Language I and II.*

Table 2: Faculty Electives					
Code	**Title**	**Prerequisites**	**ECTS**		
EE201	Analog Electronics I	ENS203	6		
EE202	Electrical Circuits II	ENS203	6		
EE305	Instrumentation and Measurements	ENS203	6		
ENS201	Electromagnetics	MATH102	6		
ENS202	Thermodynamics	NS102 and MATH102	6		
ENS205	Materials Science		6		
ENS206	System Modeling	MATH202	6		
ENS207	Engineering Graphics		6		
ENS208	Introduction to Manufacturing Systems	MATH101	6		
ENS209	Statics	MATH101	6		
ENS211	Signals and Systems	MATH102	6		
ENS302	Engineering Optics	NS102	6		
MATH207	Vector Calculus	MATH101	6		
MATH209	Discrete Mathematics II	MATH204	6		
MATH306	Statistical Modeling	MATH203	6		
ME304	Fluid Mechanics	MATH202	6		
ME306	Heat and Mass Transfer	MATH202	6		
NS122	Physics II	NS102	6		
NS209	Genetics I		6		
IE301	Production Planning I	MATH203	6		
IE303	Operations Research I	MATH201	6		
IE307	Quality and Reliability Engineering		6		
Natural Sciences Subpool					
CS100	Computer Skills		0	2	3
ENS105	The Brain		3	0	6
NS103	Biology		3	0	6
NS104	General Chemistry		3	2	6
Arts Subpool					
ARCH107	Understanding Art and Architecture		2	0	3

*** In accordance with Istanbul University Associate and Undergraduate Program Internship Directives, completing compulsory summer internships is a requirement for graduation.