

## APPENDIX 2: Curriculum of the Joint Program

### IUS Curriculum (1-4 Semesters)

<b>Semester I - IUS</b>						
No	Code	Course Name	Type	T	U	ECTS
1	ELIT100	Academic English and Effective Communication	Required	2	1	6
2	MATH101	Calculus I	Required	3	2	6
3	CS103	Introduction to Programming	Required	3	2	6
4	NS102	Physics	Required	3	2	6
5	ENS101	Introduction to Engineering	Required	2	1	3
6	xxx	University Elective I	Elective			3/6
Total				13	8	30
<b>Semester II - IUS</b>						
No	Code	Course Name	Type	T	U	ECTS
1	ELIT200	Critical Reading and Writing	Required	2	1	6
2	CS105	Advanced Programming	Required	3	2	6
3	MATH102	Calculus II	Required	3	2	6
4	MATH201	Linear Algebra	Required	3	2	6
5	ENS203	Electrical Circuits I	Required	3	2	6
Total				14	9	30
<b>Semester III - IUS</b>						
No	Code	Course Name	Type	T	U	ECTS
1	CS303	Digital Design	Required	3	2	6
2	MATH204	Discrete Mathematics	Required	3	2	6
3	CS206	Data Structures	Required	3	2	6
4	MATH202	Differential Equations	Required	3	2	6
5	MATH203	Introduction to Probability and Statistics	Required	3	2	6
Total				15	10	30
<b>Semester IV - IUS</b>						
No	Code	Course Name	Type	T	U	ECTS
1	EE201	Analog Electronics I	Required	3	2	6
2	AID101	Fundamentals of Data Science	Required	3	2	6
3	MATH205	Numerical Analysis	Required	3	2	6
4	CS309	Advanced Logic Design	Required	3	2	6
5	CS313	Theory of Computation	Required	3	2	6
Total				15	10	30

## İTÜ Curriculum (5-8 Semesters)

<b>Semester V - İTÜ</b>						
Code	Course Name	T	U	L	İTÜ Credit	ECTS
BLG 335E	Analysis of Algorithms I	3	0	0	3	4,5
BLG 351E	Microcomputer Laboratory	0	0	2	1	2
EHB 311E	Introduction to Electronics Laboratory	0	0	2	1	3
BLG 317E	Database Systems	3	0	0	3	4,5
BLG 212E	Microprocessor Systems	3	0	0	3	6
	5 <sup>th</sup> Semester Elective Course (ES)	3	0	0	3	4/5
ING 201A	Essentials of Research Paper Writing	2	0	0	2	3,5
TUR 111	Turkish for Foreign Students I	2	0	0	-	2
Total					16	29,5
<b>Semester VI - İTÜ</b>						
Code	Course Name	T	U	L	İTÜ Credit	ECTS
BLG 322E	Computer Architecture	3	0	0	3	6
BLG 312E	Computer Operating Systems	3	0	0	3	5
BLG 336E	Analysis of Algorithms II	3	0	0	3	5
BLG 354E	Signals and Systems for Computer Eng.	3	0	0	3	5
	6 <sup>th</sup> Semester Elective Course (ES)	3	0	0	3	4/5
TUR 112	Turkish for Foreign Students II	2	0	0	-	2
DAN 102 (*)	Entrepreneurship and Career Advising	0	2	0	-	1
Total					15	28
<b>Semester VII - İTÜ</b>						
Code	Course Name	T	U	L	İTÜ Credit	ECTS
ATA 121 (*)	Principles of Atatürk and History of Revolution I	2	0	0	-	2
BLG 4901E	Computer Engineering Design I	1	4	0	3	8
BLG 411E	Software Engineering	3	0	0	3	6
	7 <sup>th</sup> Semester Elective Course (ED)	2/3	0	0	2	4/5
	7 <sup>th</sup> Semester Elective Course (ED)	2/3	0	0	2	4/5
	7 <sup>th</sup> Semester Elective Course (ED)	2/3	0	0	2	4/5
	7 <sup>th</sup> Semester Elective Course (GE)	3	0	0	3	4
Total					15	32
<b>Semester VIII - İTÜ</b>						
Code	Course Name	T	U	L	İTÜ Credit	ECTS
ATA 122 (*)	Principles of Atatürk and History of Revolution II	2	0	0	-	2
EKO 201E	Economy	3	0	0	3	4
BLG 4902E	Computer Engineering Design II	1	8	0	5	10
	8 <sup>th</sup> Semester Elective Course (ED)	2	0	0	2	4/5
	8 <sup>th</sup> Semester Elective Course (ED)	2	0	0	2	4/5
	8 <sup>th</sup> Semester Elective Course (ES)	3	0	0	3	5
	8 <sup>th</sup> Semester Elective Course (GE)	3	0	0	3	4
Total					18	33
G.Total						242,5

Course code ending in letter E is taught in English.

(ES) Pool of Engineering Science courses

(ED) Pool of Engineering Design courses

(GE) Pool of General Education courses

(\*) Although the course code is not representing so, these courses are being conducted in English for foreign students in separate cohorts following the Turkish syllabus.

**Elective Pools – İTÜ**

<b>Engineering Design (ED) Pool</b>			
<b>Code</b>	<b>Course Name</b>	<b>İTÜ Credit</b>	<b>ECTS</b>
BLG 430E	Computer Networks	2	4
BLG 433E	Computer Communications	2	5
BLG 434E	Introduction to Expert Systems	2	4
BLG 435E	Artificial Intelligence	2	5
BLG 438E	Digital Signal Processing Lab.	2	5
BLG 439E	Computer Project I	2	5
BLG 440E	Computer Project II	2	4
BLG 443E	Discrete Event Simulation	2	5
BLG 444E	Computer Graphics	2	5
BLG 447E	Compiler Design	2	5
BLG 449E	Programming in Parallel and Distributed Systems	2	5
BLG 450E	Real-Time Systems Software	2	4
BLG 451E	Real-Time Systems	2	5
BLG 452E	Microprocessor Design Laboratory	2	5
BLG 453E	Computer Vision	2	5
BLG 456E	Robotics	2	5
BLG 459E	Computer Security	2	5
BLG 460E	Secure Programming	2	5
BLG 468E	Object Oriented Modelling and Design	2	4
BLG 475E	Software Quality and Testing	2	5
BLG 477E	Multimedia Computing	2	5
BLG 478E	Network Security	2	4

<b>Engineering Science (ES) Pool</b>			
<b>Code</b>	<b>Course Name</b>	<b>İTÜ Credit</b>	<b>ECTS</b>
BLG 337E	Principles of Computer Communication	3	5
BLG 368E	Operations Research	3	5
BLG 454E	Learning from Data	3	5
BLG 442E	Technology and Innovation Management for Information Technology	3	4
BLG 448E	Project Management in Engineering	3	4

<b>General Education (GE) Pool</b>					
<b>Code</b>	<b>Course Name</b>	<b>T</b>	<b>L</b>	<b>İTÜ Credit</b>	<b>ECTS</b>
ALM 101	German I	2	2	3	4
ALM 102	German II	2	2	3	4
ALM 201	German III	2	2	3	4
ALM 202	German IV	2	2	3	4
ALM 301	German V	2	2	3	4
ALM 302	German VI	2	2	3	4
ALM 401	German VII	2	2	3	4
BLG 463E	Innovative Leadership in Computer Engineering	3	0	3	4
CIN 101	Chinese I	2	2	3	4
CIN 102	Chinese II	2	2	3	4
CIN 201	Chinese III	2	2	3	4
FRA 101	French I	2	2	3	4
FRA 102	French II	2	2	3	4
FRA 201	French III	2	2	3	4
FRA 202	French IV	2	2	3	4
FRA 301	French V	2	2	3	4
FRA 302	French VI	2	2	3	4
ING 103A	Creative Writing	3	0	3	4
ING 103AC	Urban Ecology	3	0	3	4
ING 103AD	Advanced English for Engineers	3	0	3	4
ING 103B	Business English	3	0	3	4
ING 103C	Great Moments in Science	3	0	3	4
ING 103CO	Professional Communication for Engineers	3	0	3	4
ING 103ES	Intercultural Citizenship	3	0	3	4
ING 103G	Business Communications	3	0	3	4
ING 103H	Public Presentations	3	0	3	4
ING 103I	Short Stories	3	0	3	4
ING 103L	Mythology	3	0	3	4
ING 103N	Film Studies	3	0	3	4
ING 103O	Psychology	3	0	3	4
ING 103P	Poetry	3	0	3	4
ING 103SC	Science Communication	3	0	3	4
ISL 465E	Introduction to Entrepreneurship and Innovation	3	0	3	4
ISL 478E	Entrepreneurship	3	0	3	4
ISP 101	Spanish I	2	2	3	4
ISP 102	Spanish II	2	2	3	4
ISP 201	Spanish III	2	2	3	4
ISP 202	Spanish IV	2	2	3	4
ISP 301	Spanish V	2	2	3	4
ISP 302	Spanish VI	2	2	3	4
ITA 101	Italian I	2	2	3	4
ITA 102	Italian II	2	2	3	4

ITA 201	Italian III	2	2	3	4
ITA 202	Italian IV	2	2	3	4
ITA 301	Italian V	2	2	3	4
ITB 020E	Formations of Modernity	3	0	3	4
ITB 037E	Knowledge, Language and Logic	3	0	3	4
ITB 087E	Media and Society	3	0	3	4
ITB 094E	International Relations and Globalization	3	0	3	4
ITB 095E	Technology, Policy and Law	3	0	3	4
ITB 143E	Durell and Said: Orient Perspective	3	0	3	4
ITB 151E	Human Resources and Management	3	0	3	4
ITB 171E	Science, Technology and Society	3	0	3	4
ITB 201E	Introduction to Humanities and Social Sciences	3	0	3	4
ITB 202E	World History	3	0	3	4
ITB 203E	Sociology	3	0	3	4
ITB 204E	Political Science	3	0	3	4
ITB 205E	Philosophy	3	0	3	4
ITB 206E	Issues in World Politics	3	0	3	4
ITB 207E	Ottoman History	3	0	3	4
ITB 208E	Formations of Modern Turkey	3	0	3	4
ITB 209E	Turkey in World Affairs	3	0	3	4
ITB 213E	Topics in Literature and Society	3	0	3	4
ITB 215E	Topics in History and Society	3	0	3	4
ITB 216E	Economy and Society	3	0	3	4
ITB 217E	Engineering Ethics	3	0	3	4
ITB 218E	History of Science and Technology	3	0	3	4
ITB 219E	Ethics	3	0	3	4
ITB 220E	Psychology	3	0	3	4
ITB 221E	Anatolian Archaeology	3	0	3	4
ITB 222E	City and Society	3	0	3	4
ITB 224E	Environment and Society	3	0	3	4
ITB 227E	Political Theory	3	0	3	4
ITB 228E	Gender Studies	3	0	3	4
ITB 230E	Disaster Awareness	3	0	3	4
ITB 231E	Volunteering Studies	2	2	3	4
ITB 233E	Anthropology	3	0	3	4
ITB 234E	The Rise of Civilizations	3	0	3	4
JPN 101	Japanese I	2	2	3	4
JPN 102	Japanese II	2	2	3	4
JPN 201	Japanese III	2	2	3	4
JPN 202	Japanese IV	2	2	3	4
RUS 101	Russian I	2	2	3	4
RUS 102	Russian II	2	2	3	4
RUS 201	Russian III	2	2	3	4

## Elective Pools – IUS

Code	Title	T	P	ECTS
<b>Social Sciences Sub-pool</b>				
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 Programming	1	1	3
ECON108	Matlab Programming	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
<b>Natural Sciences Sub-pool</b>				
CS100	Computer Skills	0	2	3
ENS105	The Brain	3	0	6
NS103	Biology	3	0	6
NS104	General Chemistry	3	2	6
<b>Arts Sub-pool</b>				
ARCH107	Understanding Art and Architecture	2	0	3
VA121	History of Art I	3	0	6