American University – Central Asia

Program: Software Engineering

CHECKLIST

Student's Name _____ **ID #** _____

Major _____**SFW**_____ **Year of Admission** ___2016_____

Minor _____ **Year of Declaration** _____

Course Name	Course #	Course ID	Credits	Prereq	Comments
General Education Courses				**Total - 80-94 Credits**	
First Year Seminar I			6		
Introduction to Philosophy I (part of FYS)			2		
Kyrgyz Language (part of FYS)			2		
Russian Language (part of FYS)			2		
First Year Seminar II			8		
Manas Studies (part of FYS)			2		
Introduction to Philosophy I (part of FYS)			2		
Kyrgyz Language			6		
Russian Language			6		
History of Kyrgyzstan			4		
Social Sciences (12 credits):					
• Psychology, Sociology, Political Studies, Economics, Law, Anthropology and/or European Studies from outside the student's major			12		OR Second year seminar: Social science
Humanities (12 credits):					
• Modern Foreign Languages, Religious Study, History, Literature, and/or Culture from outside the student's major			12		OR Second year seminar: Humanities
Art/Sport					
Arts			12		
Sports			0	4 semesters-1 sport class	400 Hours
Natural science					
Ecology/Geography/Geophysics/History and Philosophy of Science/Concepts of Modern Science/ Physics (MAT 103/131)			6		
Mathematics (12 credits)					
Linear Algebra & Analytic Geometry			6	none	
Mathematical Analysis I			6	MAT 103/131	
Courses on Specialty				**Total 117 credits**	
Required Courses on Specialty					
From Software Engineering department				72 credits	
Programming I.			6	None	
Programming II.			6	COM-116	
Algorithms and Data Structures			6	COM-116	
Computer Architecture			6	COM-310/11/11.1	
Operating Systems			6	COM-117	
Parallel and Distributed Programming			6	COM 341.1	

Database Principles			6	COM-117	
Software Engineering I			6	COM-117	
Software Engineering II			6	COM 421.1	
Senior Project Preparation			12	COM 117/ 401.1/ 341.1	
Internship: Educational Tasks Internship: Research Project			6		
Elective Courses on Specialty					
From Software Engineering department					**42-48 credits**
Introduction to Computing*			3	none	
Algorithm Analysis*			6	COM 223.1/224	
Game Development			6	COM 117	
Computer Graphics: Programming Basics			6	COM 117	
Computer Networks			6	COM 341.1/324.1	
Computer Systems & Assembler			6	COM-117	
Database Design*			6	COM-210.1	
Website & Mobile Web App Development using HTML & CSS*			6	COM 102/4/5/6	
Information Security 1			6	COM 324.1	
Information Security 2			6	COM 424.1	
Programming Languages			6	COM 117	
System Administration			6	COM 341.1	
Theory of Computation			6	COM 324.1	
Web programming			6	COM 116	
Mobile Application Development			6	COM 117	
courses should be taken in case of doing Minor					
Elective courses Outside the Major					**30 credits**
Numerical Methods			6	COM 113/5/7 MAT 316/7	*From AMI*
Discrete mathematics and mathematical logic I			6	none	*From AMI*
Discrete mathematics and mathematical logic II			6	COM-227	*From AMI*
Theory of Probabilities and Math. Statistics			6	MAT 103/131	*From AMI*
Mathematical Analysis II			6	MAT-233	*From AMI*
Courses for Minor*					
Total Number of Credits					**240**

The Head of Major Program _____ **The Head of Minor Program** _____

Student Signature _____

Order of study for 2016 admits

	I semester (30 credits)			II semester (30 credits)	
Gen. Ed.	First Year Seminar I	6	**Gen. Ed.**	First Year Seminar I	8
	Introduction to Philosophy I (part of FYS)	2		Introduction to PhilosophyII (part of FYS)	2
	Kyrgyz Language (part of FYS)	2		Manas Studies	2
	Russian Language (part of FYS)	2		Total FYS: 12 credits	
	Total FYS: 12 credits			Social/Natural Science Humanities/KYR/RUS/ART	6
	Sport	0		Sport	0
Profile	Introduction to Computing	3	**Profile**	Programming II	6
	Linear Algebra and Analytic Geometry	6			
	Programming I	6		Mathematical Analysis I	6
	Elective course	3			

	III semester (30 credits)			IV semester (30 credits)	
Profile	Mathematical Analysis II	6	**Profile**	Computer Architecture	6
	Algorithm and Data Structures	6		Discrete Mathematics II	6
	Discrete Mathematics I	6		Elective course (Algorithm Analysis)	6
	Elective course (Game Dev., Web. Prog. Mobile App Dev etc.)	6		Numerical Methods	6
Gen. Ed.	Second year seminar	6	**Gen. Ed.**	History of Kyrgyzstan	4
	Sport	0		Sport	0
				Elective	2

	V semester (30 credits)			VI semester (30 credits)	
Profile	Operating Systems	6	**Profile**	Database Design	6
	Theory of Probabilities and Math Statistics	6		Elective course (Game Dev., Web. Prog. Mobile App Dev etc.)	12
	Database Principles	6			
	Elective course (Game Dev., Web. Prog. Mobile App Dev etc.)	6	**Gen. Ed.**	KYR/RUS:ART	12
Gen. Ed.	KYR/RUS:ART	6			

	VII semester (30 credits)			VIII semester (30 credits)	
Profile	Senior Paper/Seminar	6	**Profile**	Senior Paper/Seminar	6
	Software Engineering I	6		Software Engineering II	6
	Parallel Programming	6		Elective (System Administration)	6
	Elective (Computer Networks)	6		Natural Science	6
Gen. Ed.	Social Science	6	**Gen. Ed.**	Social Science	6