American University – Central Asia

Program: Software Engineering

CHECKLIST

Student's Name_____ **ID #** _____

Major _____**SFW**_____ **Year of Admission** ___2014_____

Minor _____ **Year of Declaration** _____

Course Name	Course #	Course ID	Credits	Prereq	Comments
General Education Courses				**Total - 86-90 Credits**	
First Year Seminar I/II(KYR/RUS 2/2 cr)			24		
Kyrgyz Language			6		
Russian Language			6		
History of Kyrgyzstan			4		
Manas Studies(Part of FYS)			2		
Introduction to Philosophy			4		
Social Sciences (12 credits):					
• Psychology, Sociology, Political Studies, Economics, Law, Anthropology and/or European Studies from outside the student's major			12		
Art/Sport					
Arts			12		
Sports			0		
Natural science					
Ecology/Geography/Geophysics/History and Philosophy of Science/ Physics (MAT 103/131)			6		
Linear Algebra & Analytic Geometry			6	none	
Mathematical Analysis I			6	MAT 103/131	
Introduction to Computing			3	none	
Courses on Specialty					
Required Courses on Specialty				**Total 114 credits**	
From Software Engineering department		*72 credits*			
Programming I. Introduction to Object			6	None	
Programming II. Object Oriented			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 341.1/324.1	
Database Principles			6	COM-117	
Software Engineering I			6	COM-117	
Software Engineering II			6	COM 421.1	
Senior Project Preparation			12		
Internship: Educational Tasks Internship: Research Project			6		
Elective Courses on Specialty					
From Software Engineering department		**42 credits**			
Circuit Engineering			6	COM 106/116	
Algorithm Analysis			6	COM 223.1/224	

Course				Credits	Code	Notes
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	
Dynamic HTML & Web-page design*				6		
Expert Systems*				6	COM-228	
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	
IT Project Management*				6	COM 105/6	
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	
Research Methods*				6		

*courses allowed not to take in case of doing Minor

Courses Outside the Major				**40 credits**		
Numerical Methods				6	COM 113/5/7 MAT 316/7	*From Natural science*
Discrete mathematics and mathematical logic I				6	none	*From Natural science*
Discrete mathematics and mathematical logic II				6	COM-227	*From Natural science*
Theory of Probabilities and Math. Statistics				6	MAT 103/131	*From Natural science*
Mathematical Analysis II				6	MAT-233	*From Natural science*

Courses for Minor*						

Total Number of Credits						**240**

*for Minor students are allowed not to take 24 credits from Elective courses from Software Engineering department

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

Student Signature   _____

ORDER OF STUDY FOR ADMITS OF 2014

I semester	II semester

1. FYS I (8)
2. Russian (2)
3. Kyrgyz (2)
              (12)
4. Computer Essentials (3)
5. Linear Algebra and Analytic Geometry (6)
6. Programming I (6)
7. Elective (3)
8. Sports
 	
Total   credits: 30
	1. FYS II (10)
	2. Manas Studies (2)
	              (12)
	3. Mathematical Analysis I (6)
	4. Programming II (6)
	5. Natural Science (6)
	6. Sports
	
	Total credits: 30

III semester	**IV semester**
1. Mathematical Analysis 2 (6) 2. Algorithm and Data Structures (6) 3. Discrete Structures I (6) 4. Elective course (Circuit Engineering 6) 5. Kyrgyz/Russian language (6) 6. Sports Total credits: 30	1. Computer Architecture (6) 2. Discrete Structures II (6) 3. Algorithm Analysis (6) 4. History of Kyrgyzstan(4) 5. Philosophy (4) 6. Kyrgyz/Russian language (6) 7. Sports Total credits: 32
V semester	**VI semester**
1. Operating Systems (6) 2. Theory of Probabilities and Math Statistics (6) 3. Database Principals (6) 4. Computer Networks (6) 5. Elective course (6) (Computer system and Assembler, Theory of Computation, Expert Systems, Mobile Application Development) Total credits: 30	1. Database Design (6) 2. Elective course (Programming Languages) (6) 3. Numerical Methods (6) 4. Elective course (Introduction to WEB Programming 6) 5. Social Science (6) Total credits: 30
VII semester	**VIII semester**
1. Senior Paper/Seminar (6) 2. Software Engineering I (6) 3. Parallel programming (6) 4. Art (6) 5. Elective (4) Total credits: 28	1. Senior Paper/Seminar (6) 2. Software Engineering II (6) 3. Elective course (6) 4. Elective course (6) (Information Security, Research Methods, Computer Graphics: Programming Basics) 5. Art (6) Total credits: 30