

American University of Central Asia

Program: Software Engineering

CHECKLIST

Student's Name: _____

ID #: _____

Major: _____

Year of Admission: 2017

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 (6 cr)
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 (6 cr)
Art/Sport					
Arts			12		
Sports			0	4 semesters-1 sport class (400 Hours)	
Natural science					
Ecology			3+3		
Physics (prereq. LINEAR ALGEBRA)					
Mathematics (12 credits)					
Linear Algebra & Analytic Geometry for AMI/SFW			6	none	
Mathematical Analysis I for AMI/SFW			6		
Courses on Specialty			Total 146 credits		
Required Courses on Specialty			126		
From Software Engineering department			99 credits		
Algorithm Languages			6		
Algorithms and Data Structures			6		
Computer Architecture			6		
Computer Graphics			6		
Database			6		
Information Security			6		

Internship: Educational Tasks			6		
Internship: Research Project					
Introduction to Software Engineering and Informatics			6		Fall-2017
Object Oriented Programming			6		Spring-2018
Operating Systems			6		
Safety Management and Economics			3		
Senior Project Preparation I/ II			12		
Software Design and Architecture			6		
Software Engineering			6		
Structural programming	COM-118		6	None	Fall-2017
System programming			6		
			99		

Required courses from "Applied Mathematics and Informatics" department					24 credits
Mathematical Analysis II for AMI/SFW			6		<i>From AMI</i>
Discrete mathematics and math. logic I			6		<i>From AMI</i>
Discrete mathematics and math. logic II			6		<i>From AMI</i>
6 credits out of next courses:					
Numerical Methods			6		<i>From AMI</i>
Theory of Probabilities and Math. Statistics			6		<i>From AMI</i>

Elective Courses on Specialty

From Software Engineering department			Minimum 18 credits (23 cr)		
3D Design and Animation			6		
ABAP programming for SAP			6		
Algorithm Analysis*			6		
Artificial Intelligence			6		
Computer Design I / II			12		
Computer Networks			6		
Computer Systems & Assembler			6		
Database Design			6		
Digital Integrated Circuit Design			6		
Game Development			6		
Mobile Application Development			6		
Programming Languages			6		
System Administration			6		
Theory of Computation			6		
Intro to Web programming			6		
Website & Mobile Web App Development using HTML & CSS*			6		

**courses should be taken in case of doing Minor*

Courses for Minor*					

Total Number of Credits					240
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Order of study for 2017 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 Philosophy II (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			Sport (Competitive programming)	0
Profile	Introduction to Software Engineering and Informatics	6	Profile	Object Oriented Programming	6
	Linear Algebra and Analytic Geometry	6		Safety Management and Economics	3
	Structural programming	6		Physics	3
III semester (30 credits)			IV semester (31 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/Theory of Probabilities	6
Gen. Ed.	Second year seminar	6	Gen. Ed.	History of Kyrgyzstan	4
	Sport (Competitive programming)	0		Sport (Competitive programming)	0
V semester (30 credits)			VI semester (30 credits)		
Profile	Operating Systems	6	Profile	Computer Graphics	6
	Database	6		Elective course (Game Dev., Web. Prog. Mobile App Dev etc.)	6
	Elective course (Game Dev., Web. Prog. Mobile App Dev etc.)	12		System programming	6
Gen. Ed.	KYR/RUS:ART	6	Gen. Ed.	KYR/RUS:ART	6
VII semester (30 credits)			VIII semester (30 credits)		
Profile	Senior Paper/Seminar	6	Profile	Senior Paper/Seminar	6
	Elective course (Game Dev., Web. Prog. Mobile App Dev etc.)	6		Software Design and Architecture	6
	Software Engineering	6		Elective	6
	Elective	6		Information Security	6
Gen. Ed.	Social Science	6	Gen. Ed.	Social Science	6