

# American University – Central Asia

## Program: Software Engineering

# CHECKLIST

**Student's Name** \_\_\_\_\_ **ID #** \_\_\_\_\_  
**Major** SFW **Year of Admission** 2013  
**Minor** \_\_\_\_\_ **Year of Declaration** \_\_\_\_\_

Course Name	Course #	Course ID	Credits	Prereq	Comments
<b>General Education Courses</b>			<b>Total - 86 Credits</b>		
First Year Seminar I/II			24		
Kyrgyz Language			8		
Russian Language			8		
History of Kyrgyzstan			4		
Manas Studies			2		
Introduction to Philosophy			4		
<b>Social Sciences (12 credits):</b>					
<ul style="list-style-type: none"> <li>Psychology, Sociology, Political Studies, Economics, Law, Anthropology and/or European Studies from outside the student's major</li> </ul>			12		
<b>Art/Sport</b>					
Arts			12		
Sports			0	400 hours	
<b>Natural science</b>					
Ecology/Geography/Geophysics/History and Philosophy of Science/ Physics (MAT 103/131)			3		
Linear Algebra & Analytic Geometry			6	none	
Mathematical Analysis I			6	MAT 103/131	
Introduction to Computing			3	none	
<b>Courses on Specialty</b>					
<b>Required Courses on Specialty</b>			<b>Total 114 credits</b>		
<i>From Software Engineering department</i>			<i>72 credits</i>		
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			6		
Internship: Research Project					
<b>Elective Courses on Specialty</b>					
<i>From Software Engineering department</i>			<b>42 credits</b>		
Circuit Engineering			6	COM 106/116	
Algorithm Analysis			6	COM 223.1/224	

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	
Game development			6	COM 117	
Research Methods*			6		
<i>*courses allowed not to take in case of doing Minor</i>					
<b>Courses Outside the Major</b>			<b>40 credits</b>		
Numerical Methods			6	COM 113/5/7    MAT 316/7	<i>From Natural science</i>
Discrete mathematics and mathematical logic I			6	none	<i>From Natural science</i>
Discrete mathematics and mathematical logic II			6	COM-227	<i>From Natural science</i>
Theory of Probabilities and Math. Statistics			6	MAT 103/131	<i>From Natural science</i>
Mathematical Analysis II			6	MAT-233	<i>From Natural science</i>
<b>Courses for Minor*</b>					
<b>Total Number of Credits</b>					<b>240</b>

\*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 \_\_\_\_\_

**ADMITs of 2013-2014 academic year**

<b>I семестр</b>	<b>II семестр</b>
<ol style="list-style-type: none"> <li>1. FYS I (12)</li> <li>2. Computer Essentials (3)</li> <li>3. Natural Science (3) (Ecology, Philosophy)</li> <li>4. Linear Algebra and Analytic Geometry (6)</li> <li>5. Programming I (6)</li> </ol>	<ol style="list-style-type: none"> <li>1. FYS II (12)</li> <li>2. Kyrgyz/Russian language (6)</li> <li>3. Mathematical Analysis I (6)</li> <li>4. Programming II (6)</li> </ol>
<b>III семестр</b>	<b>IV семестр</b>
<ol style="list-style-type: none"> <li>1. Introduction to Philosophy (4)</li> <li>2. Mathematical Analysis 2 (3)</li> <li>3. Physics (3)</li> <li>4. Algorithm and Data Structures (6)</li> <li>5. Discrete Structures I (6)</li> <li>6. Elective course (Circuit Engineering 6)</li> </ol>	<ol style="list-style-type: none"> <li>1. Computer Architecture (6)</li> <li>2. Discrete Structures II (6)</li> <li>3. Algorithm Analysis (6)</li> <li>1. History of Kyrgyzstan+Manas Studies (6)</li> <li>2. Numerical Methods (6)</li> </ol>
<b>V семестр</b>	<b>VI семестр</b>
<ol style="list-style-type: none"> <li>1. Operating Systems (6)</li> <li>2. Theory of Probabilities and Math Statistics (6)</li> <li>3. Social Sciences or Humanities(Kyrgyz/Russian lang) or Art (6)</li> <li>4. Database Principals (6)</li> <li>5. Elective course (6) (Computer system and Assembler, Theory of Computation, Expert Systems)</li> </ol>	<ol style="list-style-type: none"> <li>1. Introduction to WEB Programming (6)</li> <li>2. Computer Network (6)</li> <li>3. Social Sciences or Humanities or Art (6)</li> <li>3. Database Design</li> <li>4. Elective course (Programming Languages 6)</li> </ol>
<b>VII семестр</b>	<b>VIII семестр</b>
<ol style="list-style-type: none"> <li>1. Senior Paper/Seminar (6)</li> <li>2. Software Engineering I (6)</li> <li>3. Parallel programming (6)</li> <li>4. Social Sciences or Humanities or Art (6)</li> <li>5. Social Sciences or Humanities or Art (6)</li> </ol>	<ol style="list-style-type: none"> <li>1. Senior Paper/Seminar (6)</li> <li>2. Software Engineering II (6)</li> <li>3. Elective course (6)</li> <li>4. Elective course (6) (Information Security, Research Methods, Computer Graphics: Programming Basics)</li> <li>5. Elective course (6)</li> </ol>