

CoLAB TalentReady IT Pathways
Software Development KSAs for Curriculum Alignment

7. Software Construction and Analytics

	KSA Description	Knowledge, Skill, or Ability?	Bloom's Taxonomy Level?	Cross-cutting KSAs	Notes
a	List the key components of a use-case or similar description of some behavior that is required for a system.	Knowledge	2		
b	Describe the requirements engineering process to elicit and validate behavioral requirements.	Knowledge	2		
c	Interpret a use-case or similar requirements model for a simple software system.	Skill	2		
d	Identify both functional and non-functional requirements in a given requirements specification for a software system.	Skill	2		
e	Apply key elements and common methods for elicitation and analysis to produce a set of software requirements for a small-sized software system.	Skill	3		
f	Describe the relative advantages and disadvantages among several major process models (e.g., waterfall, iterative, and agile).	Knowledge	1		
g	Describe the different practices that are key components of various process models.	Knowledge	2		
h	Differentiate among the phases of software development and understand associated roles and responsibilities of teammates for each.	Knowledge	2		
i	Execute phases of software development.	Ability	3		
j	Understand how programming in the large differs from individual efforts with respect to understanding a large code base, code reading, understanding builds, and understanding context of changes.	Knowledge	2		
k	Ability to participate in an agile software development team.	Ability	3		
l	Ability to work on a team; responsibilities of how each role and how they fit together.	Ability	3		
m	Knowledge of the Agile manifesto.	Knowledge	2		
n	Understanding the meaning of minimum viable product.	Knowledge	2		
o	Knowledge of DevOps.	Knowledge	2		