

Advisory Board / Business and  
Leadership Council

**Program Name**  
PROGRAMMING BLC (KSA Review)

**Date**  
November 22, 2024

**"Program Name"**  
Business and Leadership Council Meeting Minutes

CHAIRPERSON: Karen Boatman, CIS Department Chair		
MEETING DATE: November 22, 2024	MEETING TIME: 3:00 pm	MEETING LOCATION: Innovation Outpost
RECORDER: Collette DiAngi & Lynne Kenney		PREVIOUS MEETING: September 27.2024

**MEMBERS PRESENT: (P = Present) Add nonmembers to bottom of table with heading "Others Present."**

P?	Name and Title (List all)	Business Affiliation	Email	Best contact number
P	Brian Crabtree	Pantex	<a href="mailto:Steven.b.crabtree@pantex.doe.gov">Steven.b.crabtree@pantex.doe.gov</a>	806-236-1673
P	Teagan Jewett, Sr. Software Dev.	Region 16	<a href="mailto:Teagan.jewett@esc16.net">Teagan.jewett@esc16.net</a>	806-220-1314
P	David Neeley, Card Sys Mgr	Valero Payment Services	<a href="mailto:David.neeley@valero.com">David.neeley@valero.com</a>	806-324-4516
P	Zack Newbill, Sr. Software Dev.	AQHA	<a href="mailto:Znewbill41@gmail.com">Znewbill41@gmail.com</a>	806-420-12-17
P	David Payne, Application Dev.	Valero	<a href="mailto:David.payne2@valero.com">David.payne2@valero.com</a>	512-201-0242
P	Star Rayburn, Owner	Skylabs Technology LLC	<a href="mailto:star@skylabstechnology.io">star@skylabstechnology.io</a>	480-343-5451
P	Chandler Turner, Sr. Software Dev.	AQHA	<a href="mailto:contact@chandlerturner.com">contact@chandlerturner.com</a>	806-223-3213
P	Karen Boatman, CIS Chair	Amarillo College	<a href="mailto:keboatman@actx.edu">keboatman@actx.edu</a>	806-371-5930
P	Ryan Francis, Coordinator	Amarillo College	<a href="mailto:rfrancis@actx.edu">rfrancis@actx.edu</a>	806-335-4229
P	Christopher George, CIS Instructor	Amarillo College	<a href="mailto:C0245396@actx.edu">C0245396@actx.edu</a>	806-3715374
P	Lynn Kenney, CIS Instructor	Amarillo College	<a href="mailto:L0504159@actx.edu">L0504159@actx.edu</a>	806-371-3249
P	Joseph Melius, CIS Instructor	Amarillo College	<a href="mailto:jamelius@actx.edu">jamelius@actx.edu</a>	806-371-5213
P	Delane McUne, CIS Instructor	Amarillo College	<a href="mailto:S0059629@actx.edu">S0059629@actx.edu</a>	806-371-5220



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P	Timothy Vo, CIS Instructor	Amarillo College	<a href="mailto:Tvo212@actx.edu">Tvo212@actx.edu</a>	806-371-5217
P	Collette DiAngi, Administrative Specialist	Amarillo College	<a href="mailto:cvdiangi@actx.edu">cvdiangi@actx.edu</a>	806-371-5269



<b>Minutes</b>	
<b>Key Discussion Points</b>	<b>Discussion</b>
<b>Old Business:</b>	N/A
<b>Welcome:</b>	Karen Boatman opened meeting up at 3:00 pm with a round table introduction of the committee members and present AC faculty and staff members of the CIS department.
<b>Facilitator:</b>	Ryan Francis facilitated the KSA voting, we begin with Skill Sets. The comments regarding the specific skill set are listed as bullet points beneath their respective categories.
<b>KSA SKILL SET</b>	
<b>S-6 Skill in implementing basic user authentication and authorization</b>	Implementing user authentication at the entry-level is uncommon; while students need to understand the concepts, they should not be trusted to implement them. Basic models of authentication and fundamental security concepts should be taught. Additionally, students should be exposed to zero-trust principles. Otherwise, they will have to learn these concepts on the job.
<b>Average Score 2.44</b>	
<b>S-11 Skill in writing basic unit tests for functions</b>	<a href="#">Teach the basic concept of what unit test are, but many companies don't even do unit testing. Spend teaching time on other, more important, concepts. Star Rayburn voted high and wants junior developers to have more than just basic knowledge; wants them to have core understanding of what is being done and why; this gives the junior developer something to do and learn the business during their first year before they can be let loose on projects. Brian Crabtree with Pantex says a student who can speak to this in an interview or on a resume it will catch attention. Unique skill set needed in industry if a student likes and is interested in this area of IT/programming. Valuable for students to practice? Knowledge and writing mocks is good, but more than that might be too much. Suggestion: write in dot.net and have assignments in higher-level courses that utilize this. Train them to develop this as a habit as part of development. But what would have to be taken off the table to teach this?</a>
<b>Average score 2.44</b>	
<b>S-13 Skill in documenting test results using standard templates</b>	Seems more like an on-the-job skill to develop. As it reads, seems more of a business analyst job. Not sure of meaning. Has not used a template before. Zach Newbill of AQHA told story of a company produced template that developers used as a way to document any testing completed; all levels had to completed, but was not a required skill to get hired.. Not an industry-wide standard.
<b>Average score 2.56</b>	



<b>S-15</b> <b>Skill in running and interpreting automated test results</b>  <b>Average score 2.11</b>	<p>Can they read an exception and know what it means--is important. Depends on the organization and their standards. But, individuals should know how to test their own app. Better lesson is learned if they turn in code that does not run and they fail a particular assignment.</p>
<b>S-22</b> <b>Skill in performing basic database backups and recovery procedures</b>  <b>Average Score 2.00</b>	<p>Gloss over, but do not spend a lot of time on; DBA or SQL senior level people need to be responsible for this. Maybe if a company runs a local instance of a database an entry level employee might need to know. Would not search for this skill on a resume or in an interview for a junior developer.</p>
<b>S-23</b> <b>Skill in creating simple stored procedures and functions</b>  <b>Average Score 2.38</b>	<p>Star: unless SQL developer, is not needed. Brian Crabtree from Pantex thinks using stored procedures provides usability and knowledge of how to store is important. Zach thinks it is valuable to introduce in a classroom setting, not necessarily an assignment to turn in to develop skills. Better as a knowledge item. Maybe teach using a process inside of a function instead of always using SELECT, so they gain experience in this area; can teach 2 things at the same time to show both sides. Region 16 has an interview question about this--do you even know what this is; knocked down applicants who could not speak to this in any way</p>
<b>S-25</b> <b>Skill in optimizing basic queries for performance</b>  <b>Average Score 2.22</b>	<p>Not expected of entry-level as a skill; knowledge definitely</p>
<b>S-29</b> <b>Skill in using CSS frameworks (e.g., Bootstrap)</b>  <b>Average Score 2.44</b>	<p>How can you target this since either very specific or frequently changing; need to understand basics of a framework for sure--basic CSS; but the employee will use the framework their organization uses. Star thinks Bootstrap steers students away from core concepts of CSS and leaves them at a disadvantage. After they learn the core stuff, can show them how Bootstrap works.</p>
<b>S-30</b> <b>Skill in making AJAX calls to APIs</b>  <b>Average Score 2.56</b>	<p>Just built into to being a web developer. Does not need to use AJAX. Do need to understand APIs. Region 16 had WT interview candidates who did not and was not impressed. Objecting to this skill specifically because of the use of AJAX. Fetch was mentioned instead because of greater flexibility for requests.</p>



<b>S-37</b> <b>Skill in deploying web applications on hosting services/servers</b>  <b>Average Score 2.11</b>	Knowledge of how to run on a server or being deployed rather than skill as entry-level. Star had to do this as a junior developer but learned on the job. Overall, the group likes the idea of exposure and core knowledge; nice to have, but not a requirement to get hired. Last comment: feels like students learning to use containers fulfill the basic knowledge required.
<b>S-38</b> <b>Skill in breaking down user stories into technical tasks</b>  <b>Average Score 2.44</b>	Would love developers to be able to estimate how long it would take to complete a task. Others feels like it is too difficult to truly estimate based on other factors.
<b>S-39</b> <b>Skill in creating flowcharts for process flows</b>  <b>Average Score 2.44</b>	Good to communicate with non-technical people. Depends on the organization. As an entry level they will not be communicating with others who are non-technical. Real question is "can you clearly define the task?" Exposure is good; especially as a new learner in a class to see the process.
<b>S-40</b> <b>Skill in documenting system requirements</b>  <b>Average Score 2.22</b>	Exposure good, especially in class as a new learner.
<b>S-41</b> <b>Skill in identifying basic system dependencies</b>  <b>Average Score 2.56</b>	Too general. Needs to be reworded.
<b>S-42</b> <b>Skill in estimating task completion time</b>  <b>Average Score 2.44</b>	Not entry level; extremely difficult to do; can it even be taught? Hard to estimate things you have not done, because cannot predict how long it will take to learn new things. Nice to have them document how long an assignment took, because it starts that process of them thinking about "time to complete" as a concept. Better listed as a knowledge item.



<b>S-43</b> <b>Skill in creating basic technical specifications</b>  <b>Average Score 2.33</b>	Not entry level.
<b>S-44</b> <b>Skill in analyzing user workflows</b>  <b>Average Score 2.33</b>	Not entry level. Maybe knowledge how to handle if you are given contradictory requirements being able to recognize that needs to be dealt with.
<b>S-45</b> <b>Skill in identifying potential technical risks</b>  <b>Average Score 2.56</b>	No comments
<b>S-46</b> <b>Skill in evaluating solution alternatives</b>  <b>Average Score 2.44</b>	Not entry level. Good if you can identify alternatives, but not required.
<b>K-5</b> <b>Knowledge of operating systems and network protocols</b>  <b>Average Score 2.44</b>	Too broad a question. OSI model useful
<b>K-12</b> <b>Knowledge of development environment and deployment concepts (CI/CD)</b>  <b>Average Score 2.22</b>	Knowledge is good. Inherit in courses by getting exposure to different development environments.



<b>K-13</b> <b>Knowledge of basic system architecture principles</b>  <b>Average Score 2.56</b>	Too broad. Service-oriented architecture? Distributed system? Be more specific. Basic architectures critical.
<b>K-14</b> <b>Knowledge of web services and microservices concepts and patterns</b>  <b>Average Score 2.44</b>	Client-server? Yes. Microservices? No. APIs? Yes.
<b>K-16</b> <b>Knowledge of scalability and performance concepts</b>  <b>Average Score 2.56</b>	Basics about algorithms. Splitting work into atomic units. Understanding how to run a task. Simple performance concepts.
<b>K-18</b> <b>Knowledge of basic DevOps principles</b>  <b>Average Score 2.11</b>	This is important to introduce.
<b>K-19</b> <b>Knowledge of system integration methods</b>  <b>Average Score 2.11</b>	Too broad. Drill down to what is meant.
<b>K-20</b> <b>Knowledge of containerization principles and orchestration</b>  <b>Average Score 2.33</b>	Orchestration is not entry level. Containers in general is important to include.



<b>K-21</b> <b>Knowledge of distributed computing concepts</b>  <b>Average Score 2.11</b>	Nice to have, but not vital.
<b>K-30</b> <b>Knowledge of standard workplace procedures and project workflows</b>  <b>Average Score 2.56</b>	On-the-job learning. Knowing what a sprint is, an SDLC process, etc. Not too deep. General workflow: develop locally, move to QA, user acceptance of some type, production. Is the developer testing their own stuff along the way. Understand the general process of the work flow.
<b>A-9</b> <b>Ability to communicate technical concepts to non-technical audiences and remain composed under system challenges</b>  <b>Average Score 2.56</b>	Learned skill; entry level does not focus on.
<b>Things to consider in the program:</b>	<ul style="list-style-type: none"><li>• Team collaboration: can someone read your code; paired programming.</li><li>• Work on a project throughout a course that builds from week to week instead of a new assignment task each week; implement like a progressive story that each student adds to the program--where they have to read and understand the other person's code.</li><li>• Give them some code that they have to read and interpret for practice.</li><li>• PowerShell!!!!</li><li>• Read a stack trace and follow where errors are and what application is doing.</li><li>• Know how to use a debugger; give them something broken and have them fix it.</li><li>• Developing a work ethic because it is not all fun and games.</li><li>• Applicant resumes are not structured well and need to improve to be more effective in getting past gatekeepers</li><li>• Applicants need more practice articulating their responses to interview questions.</li><li>• Applicants need to be able to tell a story about themselves as problem-solvers, continuous learners, understanding the business focus of the company interviewing with,</li><li>• Do not pretend to know something you do not--instead acknowledge not having current knowledge, but relate to something you do know</li></ul>



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	<ul style="list-style-type: none"><li>Practice behavioral interview style questions which are more story-driven because it permits the interview to learn more about you; do not "copy" the answer provided by some video; you want to tell your story and it must sound genuine; think about projects you completed in courses that you particularly enjoyed or that failed, but you learned something from</li></ul>
Curriculum Decisions:	N/A
Other:	N/A
Adjourn:	Meeting adjourned at 4:30 pm.

Committee Chairperson: Karen E. Boatman	MEETING DATE: 11/22/2024	NEXT MEETING: TBD
Recorder's Signature: <i>Collette V. DiAngi</i>	02/14/2025	
DEPARTMENTAL CHAIRPERSON SIGNATURE: <i>Karen Boatman</i>	DATE: 02/14/2025	
DIVISION DEAN'S SIGNATURE <i>Eddie Carter</i>	DATE: 02/14/2025	