

IMPLEMENTING THE BUSINESS AND INDUSTRY LEADERSHIP TEAM (BILT) MODEL OF BUSINESS ENGAGEMENT

A Guide for Strengthening Industry Commitment for Technical Programs



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Background and Overview

Almost all community and technical colleges are required to hold business advisory committee meetings annually or semi-annually to obtain business/industry input on their associate of applied sciences programs. However, these meetings could often be described as “rubber stamp” events during which faculty tell employers what they are doing in the program rather than asking business members what they *should* be doing in the program. This one-sided approach often results in graduates who are not best-aligned with business need and therefore not as employable as they could be.

The Business & Industry Leadership Team (BILT) model, originated by the National Science Foundation Convergence Technology Center of Excellence based at Collin College, puts businesses in a co-leadership role for college technical programs so they have direct input into the knowledge, skills, and abilities (KSAs) that program graduates should possess 12-36 months into the future ultimately producing candidates the businesses are much more likely to hire. Because BILT members must be Subject Matter Experts (SMEs) to truly know what KSAs are needed, BILTs should focus on a single program rather than all the programs in a division. While it is not essential for colleges adopting the BILT model to retitle their new and improved business advisory committee a BILT, doing so can help signify to employers, faculty, and administrators the importance of the group’s shift in mission and process.

Business engagement is also improved with a more structured KSA evaluation process, one that includes both discussion of and voting on each of the KSAs. A structured process removes much of the subjectivity that can occur when the KSA evaluation relies totally on discussion.

In short, think of the BILT as a traditional advisory council “on steroids” whereby the employers are more engaged, connect more frequently with educators, and develop a deep sense of pride in and ownership of the program and the students.

The table to the right illustrates some of the differences between a traditional business advisory model and the more engaged, business-led BILT model.

Advisory Board	Business-led BILT
May only give advice	Co-leads
Annual KSA* suggested	Annual KSA* required
May “rubber stamp” existing program	Actively helps faculty improve program
May only meet once a year	Meets at least three times a year
If advice is ignored, commitment may be eroded	When advice is valued, commitment is boosted
May not be highly invested in success of the program	Feels ownership of the program

* Knowledge, skills, and abilities update



Benefits of a BILT

Implementing a BILT is a win-win-win—for students, faculty, and BILT members.

For Students:	For Faculty:	For BILT Members:
Likely to be sought after by BILT members because businesses feel ownership of courses, certificates, and degrees.	Have assurance they are teaching the competencies businesses want future employees to possess.	Pipeline of “workforce ready” job candidates is increased.
First to be considered for opportunities such as internships, even before they complete the program.	Benefit from BILT members serving as guest speakers or assisting with recruitment events, on-campus and off.	Professional relationships with other BILT members and with the college are developed.
Have ready access to BILT members as mentors.	Learn about industry trends from BILT members in time for curriculum adjustment because of trend-focused meetings.	Opportunity to give back to the community in a way that makes a tangible difference.
Likely to have opportunities to attend workshops delivered by BILT members on topics such as interviewing skills, resume writing, workplace challenges, etc.	Benefit from free or reduced-cost professional development provided by BILT members.	Know that their time is valued.
Benefit from curriculum tightly aligned with employer needs.	Often asked to participate in externships sponsored by BILT members.	Meetings are efficient; their time is not wasted

“Leveraging the expertise of educators and the passion of industry leaders, the BILT framework enables powerful collaborations that ensure program curriculum meets employer needs and that students are well-prepared for the digitally-transformed workplace.”

-- Mercedes Adams, NetApp

Essential Elements of a BILT

The most successful BILTs always...

- Focus on a single program (e.g. software development) rather than focusing on all the programs within a division (e. g. IT) at the same time because BILT members must be SMEs in the program area.
- Use an efficient, structured, repeatable voting process that frames discussion to evaluate program KSAs.
- Involve faculty, who buy into the BILT model and attend the meetings, knowing that their program will be stronger when employers co-lead the work; faculty still “own” the resulting curriculum. Faculty must cross-reference the BILT-prioritized KSAs to existing curriculum, identify possible content gaps, and update curriculum as needed to address KSAs needed by businesses.
- Receive specific feedback from the college faculty regarding how they implemented the prioritized KSAs in curriculum. And, if faculty cannot implement desired KSAs for some reason, the reasons for non-implementation are discussed with the BILT for possible solutions.
- Meet 3-4 times per year.
 - 1) A longer face-to-face (or synchronous virtual) meeting focusing on the KSA voting and discussion. (Approx. 2-3.5 hours)
 - 2) 2-3 other meetings should last 45-90 minutes and can be accomplished through web meetings to focus on feedback and trends:
 - a. Feedback on KSA implementation in curriculum as well as updates on the target program and any associated grant, and
 - b. A discussion of industry trends, three years or more into the future, allowing faculty to begin planning for needed curricular changes.
 - 3) An Orientation Meeting is suggested for year one to familiarize existing advisory council members as well as potential new BILT members with the benefits of converting to the BILT model. This Orientation Meeting – which runs no more than 45 minutes to encourage attendance – is a way to introduce the BILT concept in a low-stakes setting to key employers. Attendees are there to better understand the BILT model and decide whether they’re interested and able to participate going forward.

“As a member of the BILT for over fifteen years, I’ve seen how well the process works to deepen the connection and engagement between industry and educators.”

-- Vincente D’Ingianni, Binary Systems Inc.

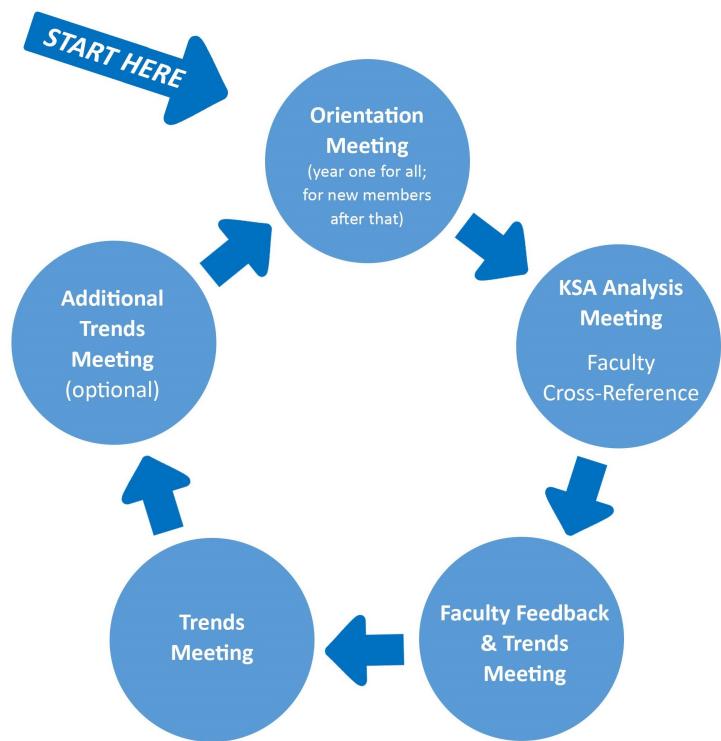


Recommended 12-Month BILT Meeting Cycle

The first convening of the BILT should be an Orientation Meeting for all BILT members to explain the process and secure interest. Inviting employers to a 1-hour orientation meeting is a much easier ask than starting out inviting them to a longer KSA meeting. After the first year, use the orientation meeting for new BILT members as they join, and aim to add 1-2 new members annually.

After that, the meetings can follow an annual schedule of one longer KSA analysis meeting and 2-3 shorter trends meetings.

The first trends meeting after the annual KSA analysis must feature detailed feedback to the BILT regarding the implementation of the KSA analysis and recommendations based on the faculty cross-reference meeting.



"I highly believe in the BILT because one of the things that I observed was that education was behind. And of the reasons why I've participated in the BILT for well over ten years is to make sure that we're arming you – the educational institution – with information on where are we going."

-- Scott Veibell, Cisco Systems

Identifying and Recruiting the Right BILT Members

- BILT members must be technical SMEs for the program being addressed and have a knowledge of future needs in the industry.
- Examples of effective members include:
 - High-level technical executives (strategists) who are responsible for evaluating future technologies for their companies
 - First-line hiring managers who are aware of the KSAs they currently need their employees to have as well as the challenges they face
 - Recent program graduates working as technicians currently doing the job represented by the sub-discipline – while technicians are often not attuned to future workforce trends, recruiting your graduates adds important perspectives

to the BILT; they have a unique position of knowing your program and also working in the industry

- Human resources professionals should not be the sole representative for a company. (Human resource staff receive their KSA knowledge from hiring managers; therefore, their knowledge is second hand.)
- Ensure department faculty understand and are engaged in the BILT member selection process. Faculty are sometimes apprehensive about the BILT “co-leading” the work. In reality, faculty retain control of the curriculum but use the BILT’s prioritized KSAs and discussion to guide curriculum updates.
- Suggestions for finding potential BILT members involve networking with your own human network, both professional and social. Possible approaches include using the following avenues to invite potential BILT members to a short Orientation Meeting:
 - Involve existing advisory council members (do not fire anyone from an existing program advisory council) and mine contacts on advisory councils for related programs.
 - Talk with workforce groups on campus who may already have contacts with employers to get leads.
 - Contact your president and ask for personal introductions to appropriate community contacts; also ask your president to mention the need to college trustees.
 - Connect with local organizations like Chambers of Commerce and economic development boards to get virtual introductions to likely BILT members.
 - Collaborate with industry associations, asking for participation so that your program can produce more qualified graduates.
 - “Cold call” on target businesses in your region. BILT is beneficial and not difficult to promote.
- Be sure to invite faculty to the BILT Orientation Meeting also.

Preparing for Your BILT Orientation Meeting

As mentioned earlier, the purpose of the Orientation Meeting is to explain to existing advisory council members and new prospective BILT members the value proposition for your implementing the BILT model. You will explain how the BILT model will invigorate your advisory council and how implementing the BILT is mutually beneficial.

This meeting is almost always held online and takes 45- 60 minutes. When inviting new BILT members to join it's often easier to get them to attend this shorter meeting.

Logistics:

- Pick a date and time.
- Use the Orientation Script template (and TIPS) to build an email and/or printed invitation to the meeting - or to create a phone script to use when calling prospective BILT members individually.
- Arrange for web-meeting invitations to be sent **three weeks** in advance with reminders sent **one week**, and **two days** prior to the meeting.



- Modify the Orientation PowerPoint template to guide your meeting.
- Host the Orientation Meeting to explain the BILT and to invite the employer attendees to fully participate in your program BILT.
- End the meeting asking for attendees to join in on the BILT KSA meeting, and tell them they will receive an invitation to that meeting.

Preparing for Your First BILT KSA Meeting



Logistics:

- Pick a date and reserve a room. For face-to-face meetings, an 8:30 am start time on a Tuesday, Wednesday, or Thursday often works best because business representatives can come directly to the meeting rather than trying to extricate themselves from their offices in the middle of the day. However, be sensitive to your employers and ask a few of them what timing will work best. Always plan for web-meeting attendance as well so that those who cannot or do not want to travel to campus can participate. This meeting is typically 2-3.5 hours (see KSA details to determine length).
- Ensure catering will be available for a meal or snacks for face-to-face meetings, especially coffee and water throughout.

Drafting Invitations

- Review the BILT KSA script template and customize for use in a printed and an email invitation as well as for a telephone follow-up. Email and printed invitations always require telephone follow-up.
- Send the KSA meeting invitation to BILT members and to faculty **3-4 weeks** prior to the meeting. You may also want to consider inviting the appropriate dean, vice



president, and even the president to give them an opportunity to learn more about your work.

- In the invitation:
 - Identify the value proposition (What's in It for Me – WIIFM) for BILT members. The value to each business representative may differ; some may want to have an improved pipeline of candidates for open jobs, while some may want to retrain their workers, etc. Almost all BILT members want to see more qualified job candidates.
 - Be clear that a meal or a snack will or will not be provided. (Quality food and coffee will improve any face-to-face meeting, but it need not be elaborate.)
 - Ask invitees to RSVP to a person who can track responses.
 - Advise the invitees that someone from the college will follow up to answer any questions, and do so via phone.
 - Include a copy of your Orientation PowerPoint detailing BILT member commitments for the year.
- For your first KSA meeting, plan to mail printed and hand-signed invitations in stamped envelopes so the invitation stands out and is more likely to be opened. Also email the invitation, but don't use email only as email is too easily ignored by individuals not yet familiar with your program.
- Once your BILT is well-established, email communication can be more effective.

KSA Invitation Follow-Up and Other Preparation

- Secure A/V equipment including a projector.
- Provide web meeting access to the face-to-face meeting, if possible, so those who cannot attend in person may phone in and/or view the meeting via web. It helps to have screen sharing capabilities to display information for discussion; meeting software such as GoToMeeting, WebEx, and Zoom have this capability.
- Secure/confirm catering; arrange for water, coffee, and meals/snacks.
- Reconfirm the room reservation and arrange for room set-up. (Typically, a "U" within a "U" plus a refreshment table and a registration table. The inner "U" is for the business representatives, and the outer "U" is for the faculty. The room arrangement may need to vary depending on the room size or shape. At minimum, the business representatives need to sit around a "U.")



Photo from: <https://classroomessentialsonline.com/blog/the-21st-century-classroom-7-ways-to-arrange-collaborative-desks/>

- Invite/confirm a person who will be the minute-taker/web-meeting chat monitor in the room. Also plan to record the meeting and use the web-meeting software's transcript capability. This individual can also staff the registration table.

“I think that the BILT model is not an option. I think it’s a must.”

-- Carolyn Corbin, Center for the 21st Century

Preparing the KSAs for Voting

The most important annual role for the BILT is to conduct a job skills validation of basic Knowledge, Skills, and Abilities (KSA), a process that originated in the US Air Force. The KSA analysis process was first used in the 1990s at Richland College and then at Collin College in 2003. It is a modified DACUM process that takes 2-3.5 hours (using the electronic voting process) and can be used for any technical program, at any size college. The process has been used successfully in rural colleges in Arkansas, Iowa, Nebraska, and South Carolina, and in urban college districts in Arizona, Florida, Texas, and beyond.

The KSA meeting relies on discussion and a voting process, and both parts are equally important. It is important to resist the urge to send out the KSAs via email and ask the BILT members to rank the items. Experience has shown that discussion only happens synchronously, not through emails. Further, those who view and rank the KSAs prior to the meeting can feel that they have already done their work and may decide that their attendance at the meeting is not needed.

That said, some colleges with busy employers have had success asking BILT members to vote on the KSAs on their own and then convene to discuss the results as a group. This is not the ideal approach, but it can work if you’re able to get the employers who vote “at home” to also attend the meeting.

The information that follows contains details and a timeline of activities to help you prepare for a KSA analysis meeting.

“The professors and instructors are very busy doing a great job of teaching the curriculum. And that doesn’t often leave enough time to really go out and do the research, attend the conferences, and do the future studies work of how that will impact businesses moving forward.”

-- Glenn Wintrich, RDM Innovation Training



Creating the Pro Forma List of KSAs

- Create the pro forma list of KSAs. Ideally, also ask key campus personnel and 1-2 employers to suggest revisions prior to the meeting. This initial list is the best guess at the possible KSAs the employers will want. Providing this list shortens the time needed for evaluation.
- Do not assume you know what employers want in graduates; let them tell you.
- Pro forma KSA list is:
 - A starting point for discussion; business representatives may add, change, or delete items during the meeting.
 - No more than 75-125 items, maybe less. Rule of thumb: 30-35 KSAs per each hour of meeting. (e.g. 2-hour meeting = 60-70 KSAs, 3.5-hour meeting = 105-125 KSAs)
 - The list may initially be largely knowledge areas (The Ks from the KSAs), especially in new programs.

Locating KSAs for the Pro Forma List

- Incorporate multiple sources of information, if possible.
- Identify similar programs at other colleges and start with the student learning outcomes of the courses within those programs.
- Identify and use national standards, if they exist.
- Involve a small number of employers to help develop pro forma list.
- Use a Google search to find KSAs.
- Note: Skills databases such as O*NET Online are good resources but recognize that they provide static KSAs for existing job titles and are not future-facing.

Be sure to eliminate duplicates from your pro forma list before sharing with your employers.

Below is a sample pro forma list prepared prior to the KSA meeting. Note the blank “4 3 2 1” columns on the right, which will be used to tally (and automatically average) the real-time voting.

C	D	E	F	G	H	I
	Infrastructure KSA					
	Knowledge	# votes (4 = most important)				
		4	3	2	1	Avg
K-1	Knowledge of computer networking concepts and protocols, and network security methodologies.					
K-2	Knowledge of risk management processes (e.g., methods for assessing and mitigating risk).					
K-3	Knowledge of laws, regulations, policies, and ethics as they relate to cybersecurity and privacy. (e.g., PCI, PII, PHI, GDPR)					
K-4	Knowledge of cybersecurity and privacy principles.					
K-5	Knowledge of cyber threats and vulnerabilities.					
K-6	Knowledge of specific operational impacts of cybersecurity lapses.					
K-7	Knowledge of communication methods, principles, and concepts that support the network infrastructure.					
	Knowledge of capabilities and applications of network equipment including routers.					

2 Weeks before KSA Meeting

- Tabulate the RSVPs.
- Phone those who have not yet RSVP'd to promote the event and get responses.
- Aim for at least 15-20 positive RSVPs. It is typical for as many as half of those responding positively to have something come up that prevents them from attending.
- Ensure the KSA list has been finalized and reviewed; import KSAs into an electronic Google voting form and create the summary spreadsheet that will automatically tally the votes during the meeting. Test the voting form and summary sheet.
 - Votes are automatically recorded via the electronic voting form and spreadsheet. Manual vote counting is no longer required.
 - Learn more about how to use this free online system by using these resources:
 - 14-minute video (<http://bit.ly/GoogleKSA2021>)
 - Companion instruction sheet (<http://bit.ly/KSAgoogletoolJun21>)
- Test the A/V and web-meeting equipment and software, as applicable. Remember also to have handy a conference phone – even for local meetings – to allow remote participation.
- Prepare for the Faculty Cross-Reference Meeting that will follow the KSA meeting:
 - Determine date, time, and room for meeting. (Soon after the KSA meeting is optimal so that faculty can recall employer discussions more easily.)
 - Invite faculty via calendar appointment.
 - Working with faculty, identify courses that are or may be included in targeted certificate/degree.
 - Input course names or numbers into the KSA spreadsheet on the right side (hide these columns during the KSA meeting).
- Finish any remaining tasks from the Week 3 list.



"The BILT has inspired industry leaders and faculty to unite in an effort to build students into the very best workforce-ready employees."

-- Matt Glover, Le-Vel

1 Week before KSA Meeting

- Send reminder email/calendar invitations to all who were invited to the KSA meeting asking those who have not RSVP'd to do so (includes faculty). Include campus map and parking instructions along with directions to the room and a PDF of the original invite.
- Verify catering is arranged, confirm headcount, and ensure delivery aligns with your meeting schedule.
- Ensure KSA PowerPoint slides have been customized for your program and college.
- Prepare and print sign-in sheet for BILT and faculty.
- Ensure recorder and minute taker are confirmed to attend.
- Finish any tasks left from previous weeks.

2 Days before KSA Meeting

- Send another email reminder with map
- Reconfirm A/V and catering.
- Prepare table tents for all attending, including faculty; prepare some blanks as well for those who show up without RSVP.
- Load KSA meeting introductory presentation and voting spreadsheet onto facilitator's laptop.

Roles and Protocol during KSA Meeting

- Facilitator
 - Conducts the KSA analysis meeting and is responsible for its effectiveness.
 - May be an external process expert, a program chair, senior faculty member, administrator, or other person, but the facilitator may not influence the voting or discussion.
 - Politely but firmly keeps discussion on track, intentionally calling on those who are "out-talked" by the more outgoing employers at the meeting.
 - Keeps the discussion focused on the recommended KSAs rather than the minutia of curriculum and courses.
 - Should NOT be the lead faculty member for the program of focus lest he or she feel defensive about employers finding "fault" with his or her program.
 - Reminds attendees of the meeting protocol
 - Respect each employer's donated time and use it effectively.
 - Consider all employers' input, but do not let any one employer dominate.



- Faculty are SMEs
 - Serve as ex-officio BILT members, listening and asking questions without dominating the meeting. They do not participate in the prioritization votes. Faculty do not talk about the existing curriculum during the meeting as that could slant the discussion.
 - After the meeting, faculty decide how to use KSA results to create curriculum that aligns with employer-needed KSAs.
- Minute-taker
 - Minutes are taken to document employer discussion in addition to using the transcript feature from the web-meeting software
- Industry Members are SMEs
 - Participate fully in the prioritization voting and related discussion.
- Feedback
 - BILT members must always receive feedback on their recommendations. Ideally, this is done at the next BILT meeting, at which faculty describe both what can and cannot be done to change the program. Sometimes BILT members can remove barriers by providing equipment or an instructor, for example.



In the photos above, note the “U” table arrangement (upper right) to facilitate discussion among the BILT members. The “Recorder” (lower right) enters votes and BILT comments into the spreadsheet (lower left) in real time, which is projected onto the room’s screen.

The KSA Meeting Day

- Send final email reminder early on the day of the meeting (if the meeting is at night) or the afternoon before if the meeting is early in the day.

- If you plan on taking photos or recording video, have ready a release form for attendees to sign.
- Arrive early to ensure everything is set up properly. This includes any catering or in-house water and coffee.
- Set up registration table with sign-in sheet, name tents, and information about the college/program. Handouts should include copies of the KSA list for reference and a reminder of the 1-4 voting ranks. For those joining by phone, this material can be emailed.
- Do not share existing course patterns for certifications and degrees so as to not influence the discussion.
- Test the equipment set-up including A/V, the conference phone, and online access.
- Make sure all presentations and spreadsheets are on the appropriate devices.
- Greet the employers.

KSA Meeting Suggested Agenda

Be sure to record the meeting if at all possible as it helps in documenting the minutes.

- **Welcome and self-introductions** by each attendee, including those on web meeting/phone (if used). (Remember to call on participants connected by web meeting or phone just as if they were in the room. It is a good idea to have a sign in view of the facilitator that lists who is attending via web-meeting.)
 - Ground Rules include turning off cell phones or put on silent/vibrate; respecting differing opinions; employers participating fully in validation ratings and discussion, though members who don't feel qualified to rate a particular item may abstain.



- In the photos on the previous page, BILT members in the room raise their hands to vote on each KSA item in real time – the new electronic voting method eliminates the need for hand votes.
- **Overview of purpose and characteristics of the KSA meeting**
 - Emphasize desire to develop a stronger partnership with employers by asking them to co-lead the work.
 - Remind the BILT members that they are to focus on the KSAs needed in entry-level technicians, not existing courses or certificate and degree plans.
 - Each BILT member will rate each knowledge, skill, or ability for what they expect an entry-level person to know using the link to the electronic form. (Consensus is not the goal.)
 - The average rating for each K, S, or A will be automatically calculated by the spreadsheet.
 - Discussion around the importance of the skill is useful when faculty later determine how the KSA will be addressed in a course or credential. The discussion is just as important as the voting; this is the reason that in-person, real-time, synchronous KSA analysis is so much more effective than surveys sent out in advance.
- Departmental items: Cover anything that needs to be addressed prior to undertaking the KSA analysis, such as announcements, background information, enrollment issues, etc.
- Present KSA process slides to set the stage
- **Vote on the pro forma KSA list**
 - Keep handy for the employers a copy of the chart at right explaining the rankings.
- **Discussion on voting results** with employers, especially if the votes are widely split.
- **Next steps** - conclude the meeting by telling employers about:
 - The faculty cross-reference process. Faculty will meet later to map the skills identified at this meeting to existing courses. Gaps will be identified and a curriculum strategy will be established.
 - How employers will receive feedback. Hopefully, this will occur at the next BILT meeting, usually within 2-3 months. Be sure to discuss possible dates and times before everyone leaves. Schedule the follow-up meeting if possible so attendees can put it on their calendars.
- **Adjourn** - end on time, so employers believe you recognize the value of their time.

KSA RANKINGS

- | | |
|----------|---|
| 4 | The KSA must be included in the curriculum |
| 3 | The KSA really should be included in the curriculum |
| 2 | It would be nice for the KSA to be included in the curriculum |
| 1 | The KSA can be left out of the curriculum entirely |

Faculty Cross-Referencing Meeting

- Faculty meet soon after the KSA meeting. Meeting the same day, next day, or at least within a week of the KSA meeting is best so that faculty members' recollection of the employer discussion is fresh.
- Bring discussion notes (transcript or otherwise) to the meeting to support the prioritization value per KSA. If employers suggested few changes or deletions, the meeting could reasonably be held prior to the notes being actually completed.
- Collaboratively determine the average cut-off value (usually something between 2.6 and 3.0, sometimes a little less) for items to be included in the certificate/degree.
- Use the prioritized KSA sheet with course columns no longer hidden and insert the actual course names.
- Considering one course at a time, faculty determine per K, S, or A which existing courses provide Exposure on the topic (mark with an "E"), and which provide Thorough coverage (mark with a "T").
- Once each KSA has been considered for coverage, those KSAs with no "E" or "T" and those with only "E"s need to be highlighted as follows:
 - Note each KSA that has no "E" or "T," and highlight that line of the spreadsheet in a color such as pink.
 - Note each KSA that has only "E"s, and highlight that line of the spreadsheet in a color such as yellow.
- Below is a sample pro forma list as it would look after the cross-reference faculty meeting. Note the tallied (and averaged) "4 3 2 1" votes of the BILT and the far right "Ts" and "Es" rankings per course as determined by the faculty.

C	D Infrastructure KSA	E	F	G	H	I	J	K	L	M
	Knowledge	# votes (4 = most important)				Course A	Course B	Course C	Course D	
		4	3	2	1	Avg				
K-1	Knowledge of computer networking concepts and protocols, and network security methodologies.	11				4.0	T			T
K-2	Knowledge of risk management processes (e.g., methods for assessing and mitigating risk).	7	1	2		2.5		E		T
K-3	Knowledge of laws, regulations, policies, and ethics as they relate to cybersecurity and privacy. (e.g., PCI, PII, PHI, GDPR)	8	4	1	0	3.5	E			
K-4	Knowledge of cybersecurity and privacy principles.	7	4	1		3.5		E	E	T
K-5	Knowledge of cyber threats and vulnerabilities.	3	6			3.1				
K-6	Knowledge of specific operational impacts of cybersecurity lapses.	4	3	2		3.8	T		E	
K-7	Knowledge of communication methods, principles, and concepts that support the network infrastructure.	9	1			3.9		E		T
	Knowledge of capabilities and applications of network equipment including routers,				

- Faculty determine how to address the gaps that have no course coverage through new courses or perhaps a module for an existing course. OR, they may want to discuss the gap with the BILT members if addressing the gap has challenges. BILT members may, for example, be able to address equipment needs, provide adjunct instructors to teach emerging technologies, etc. If a gap remains, and the BILT members cannot help, BILT members need to help faculty determine what to do.
- Items covered at an Exposure level only should be discussed with BILT members during feedback session to ensure that Exposure coverage is enough.

Holding the BILT KSA feedback session

- Plan to hold the feedback session 1-3 months after the KSA analysis session.
- Share the highlighted KSA prioritized spreadsheet with the BILT members.
 - If faculty were able to determine how to fill the gaps, also share the course pattern for certificate(s) and degree(s) modified based on the KSA prioritization.
 - If faculty were not able to address all the gaps/changes, plan to discuss the challenges with the BILT and then create the modified course pattern for certificate(s) and degree(s) for presentation at a later BILT meeting.

Applying the results of the KSA prioritization and the faculty cross-reference

- Develop enhanced certificate and degree programs.
- Note that certificates will be most successful if they are created in a stackable manner. That is, the initial certificate gives the student credentials to obtain the first job, and the subsequent certificates stack atop the beginning certificate and sequentially on one another, culminating in an Associate Degree.
- Document which of the KSAs are covered by each certificate or degree by adapting the following template to show the KSA coverage per certificate (and then for a degree, if any) at the top, and the courses that are included.

Certificate in Tech Project Management

KSA's covered by Certificate
Exposure: K2,K4,K10,K11,K12,K13
Thorough: K1, K8
Gaps: K9, K13

Courses	Course Title	Credit Hrs.
ITPM1001	Intro to Tech PM	4
ITSC1374	Intro to Comp Net	3
3rd course		
4th course		
etc.		

"I have been actively involved in the Business and Industry Leadership team for the Convergence Technology Center for over ten years and students graduating from that program are exceptionally prepared to secure jobs in the workforce because they have skills that business needs."

-- Tu Huynh, Comerica Bank

Hosting Your Other BILT Meetings

Aside from the annual KSA meeting, your other 2-3 BILT meetings throughout the year will likely work better online, run shorter (between 60 and 90 minutes), and focus on two primary agenda items:

Reporting Back to the BILT

- When sharing feedback with the BILT be sure they have copies (whether emailed in advanced or provided as hard copies in the room) of the KSA spreadsheet with course cross-reference.
- If meeting in person, ensure room is set similar to how it was arranged for KSA analysis.
- Suggested agenda for the feedback portion of the meeting:
 - Thank the BILT for their dedication and commitment to the KSA analysis process.
 - Explain what the faculty did in the cross-reference process.
 - Present the spreadsheet with the priorities, but do not dwell upon it; rather, move on to the curriculum reporting.
 - Present the curriculum for each certificate and each degree, showing the K, S, and As covered by each credential, not by individual courses.
 - Talk about any new modules/courses created to fill gaps.
 - Talk about any gaps that the college is unable to fill (and why). Employers may be able to help with things like equipment outside the college budget and adjunct instructors.
 - Hold discussion of each degree or certificate, capturing employer suggestions.

Discussing Trends

- Trends discussions will focus on industry innovation three or more years into the future as well as on any questions or reporting that the college personnel may wish to discuss. These talks are much less formal than the KSA vote and discussion.
- Note that employers may not yet know the impact on curriculum of a trend they are mentioning, but it's important for faculty to be apprised of the innovations early so that they can begin thinking about possible curriculum changes. It is also important for the facilitator to ask the employers what each innovation means for curriculum. It



is common for a trend to become “clearer” over time with respect to curricular implications.

- One possible checklist to consider when discussing trends:
 - Define the trend
 - Discuss the ramifications for educators
 - Look at the trend’s timing/adoption
 - Identify the mashups needed to make the trend successful
 - Project possible risks
- Note that it is a good idea to “seed” the trends discussions by asking 2-3 of the BILT members to come to the meetings prepared to discuss 1-2 trends they are seeing; otherwise, there may be silence when a discussion of trends is requested.
- Another way to help spark the trends talk is to share an interesting workforce chart or graph and ask the BILT members to comment.

Typical Agenda

- The typical meeting agenda for the shorter, non-KSA meetings will include:
 - Welcome and Introductions of employers and educators
 - Employers highlight new trends and discuss each; other attendees may ask questions or contribute additional information.
 - Faculty share feedback on how previous BILT recommendations and KSA votes have been implemented into the program
 - College personnel present additional opportunities for involvement such as student mentoring, resume review, mock interviewing, speaking in classes, participating in employer panels, providing internships, etc.
 - Discuss any other items related to the program that may be interesting to the BILT.
 - Ask BILT members who else should be added to the team and request their assistance with introductions. It is a good idea to try to add at least one new member per quarter to keep ideas fresh.
 - Close by specifying the date and purpose of the next BILT meeting.

Leadership of the BILT

Because the main premise of the BILT involves co-leadership, it is a good idea to select a business chair who will co-lead the meetings along with the person leading on the education side. Typically, this chair is not chosen before the first meeting, because the entire BILT needs to learn the roles and responsibilities of the BILT. Further, the educational co-chair needs to ensure that the BILT co-chair is a person in a position within his or her company that is aware of future trends as well as current hiring requirements. It is better to delay the choice than to hastily choose a co-chair.

In the 2014 photo on the next page, the National CTC transfers BILT chair leadership from Glenn Wintrich (right) of Dell to Matt Glover (left) of AMX Harman in a short ceremony before the start of a BILT meeting.





The BILT co-chair should typically be selected when the educational co-lead is familiar with the initial BILT members and can see which one has the time to give and is naturally a leader among the BILT community. And, there is no real hurry in choosing this person. It may take a few meetings for the leader to become apparent. It is a good idea to allow the educational lead to select the BILT co-chair so that the working relationship does not contribute added stress.

At the point the potential BILT co-chair has been identified, it is important to privately ask this person if he or she is willing to take on the extra responsibility for approving the agenda prior to each BILT meeting, co-leading the KSA analysis, and helping plan and manage the trends discussion agenda for the virtual meetings (or finding others on the BILT who are willing to identify trends each time). He or she will likely already be at the KSA analysis face-to-face meeting, so no additional time should be required. With respect to trends, though, the commitment could take additional time, and it is important that the person commit to providing the trends.

“Our goal is to produce graduates that are ready to work. And that means we need to teach them the most up to date skills in the classroom. That’s why the BILT is necessary.”
-- Abe Johnson, Collin College

Common Implementation Challenges

Reluctance to schedule frequent meetings.

- Meetings don't have to be elaborate, catered, in-person events. Virtual meetings work.
- If you're only connecting with your business group once a year, it will be very hard to get them invested in your program. You need frequent meetings to develop the lasting connections and relationships that makes a BILT thrive. Strive to meet once a quarter.

Reluctance to conduct the annual KSA vote.

- A free-flowing discussion without a vote can be difficult to analyze. To properly align BILT recommendations with curriculum content, faculty needs concrete, actionable metrics via the KSA vote.
- The days of long, time-consuming manual vote counts are over – the online voting method is a much more efficient process. Going through 150 KSAs often takes no more than 20 minutes. That allows you to devote more of your meeting time to discussing the vote results, which provides additional context and perspective.

Inability to find committed employers.

- Once businesses realize that they truly are being heard and are helping to steer the program as “co-leaders,” they will commit. It takes time to find the right people. Aside from working with regional resources to recruit employers, you should also “network with the network.” That is, as you bring employers into the BILT, leverage their contacts to find other employers.
- Keep in mind the "WIFFM." What's in it for me? Connect with your BILT members regularly to be sure you understand what they're hoping to get out of their involvement. Those kinds of conversations – that happen outside the BILT meetings will help make them feel valued and appreciated.

Difficulty getting institutional buy-in.

- Start small. Build the BILT for a single program. Over time, that program’s success will inspire others to adopt the model. This has been the pattern at a number of colleges. Also consider recruiting an “influencer” that others follow – this could be a faculty member, a dean, or maybe even a vice president.
- You need a champion who not only sees the value in the BILT model, but can also both inspire others to adopt the BILT and clear some of the institutional barriers that may be impeding the adoption.

Faculty fear losing control to employers.

- BILT meetings focus on the KSAs, not classroom content. The faculty are the ones who design the curriculum and decide how and when to cover the entry-level skills the employers request. The BILT model simply keeps the educators better informed.
- Faculty stays 100% in control of the curriculum. Even though the BILT model calls employers “co-leaders,” the faculty remain the education experts.

For Questions:

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