Getting More Out of Your Employers to Benefit Your Students – Transforming Your Advisory Council into an Engaged BILT

July 22, 2025

Agenda

- Action Plan
- Introductions
- NITIC Overview
- Why Implement a BILT?
- Seven BILT Essentials
- Recruiting
- The Job Skills Vote Meeting
- The Trends Meeting
- Recap
- Review Game
- Survey and Adjourn

Action Plan

- Three sections – recruiting, hosting a meeting, aligning curriculum
- Measurable outcomes
- Submit final plan via link

bit.ly/HITEC25nitic

NITIC
National Information Technology Innovation Center

ACTION PLAN

Using the table below, please write down strategies, best practices, and/or tools that you want to implement at your home school.

These items must have measurable outcomes. What data will tell you that the strategies, best practices, and/or tools made a positive impact in the classroom?

	Action item(s)	Who will be involved	How success/impact will be measured
1.Recruiting			
2. Hosting a meeting			
3. Aligning curriculum			

This material is based upon work supported by the National Science Foundation under Grant No. 2300188. Any opinions, findings and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

Welcome and Introductions

Icebreaker

NITIC Overview

THE NATIONAL INFORMATION TECHNOLOGY INNOVATION CENTER

NITIC Overview

National IT Innovations Center
Columbus State Community College
$7.5 million, five years

The National Information Technology Innovation Center (NITIC) is a collaborative community of educators, industry leaders, government agencies, and other IT stakeholders that are working together to prepare tomorrow's workforce for jobs in emerging technologies.

NITIC will create valuable products and deliverables that will advance knowledge in IT education, including the following:

IT Innovation Network

Join the IT Innovation Network (ITIN) and be part of our Community of Practice for faculty sharing, learning, and problem-solving.

Innovation Clearinghouse

Access or share new IT curriculum assets and resources in the Innovation Clearinghouse.

Professional Development

Take advantage of Professional Development opportunities, including Working Connections Virtual and In-Person Workshops.

Business Industry Leadership Teams

Stay up to date on industry needs and employer engagement through Business Industry Leadership Teams (BILT).

NITIC Overview

www.nitic.org

Why Implement a BILT?

Why Implement a BILT?

What is it?

- “Advisory Committee 2.0”
- Structured, repeatable process
- Puts employees in a co-leadership role which increases engagement
- Provides annual prioritization of entry-level job skills

Why Implement a BILT?

Successful BILTs do two things:

BUILD RELATIONSHIPS

ALIGN CURRICULUM

Why Implement a BILT?

Major Goals for Higher Ed and U.S. Employers –

1. STUDENTS complete certificates and degrees and are well-qualified for ready employment or transfer

2. EMPLOYERS are highly engaged and want to hire students

The BILT model has proven effective in meeting both goals

Why Implement a BILT?

Two kinds of meetings

- Cross-discipline mega-BILT meetings for **trends discussions** (1 hour)
- Single-discipline SME BILT meetings for **job skills vote and discussions** (90 minutes-2 hours)

Why Implement a BILT?

Proven track record –

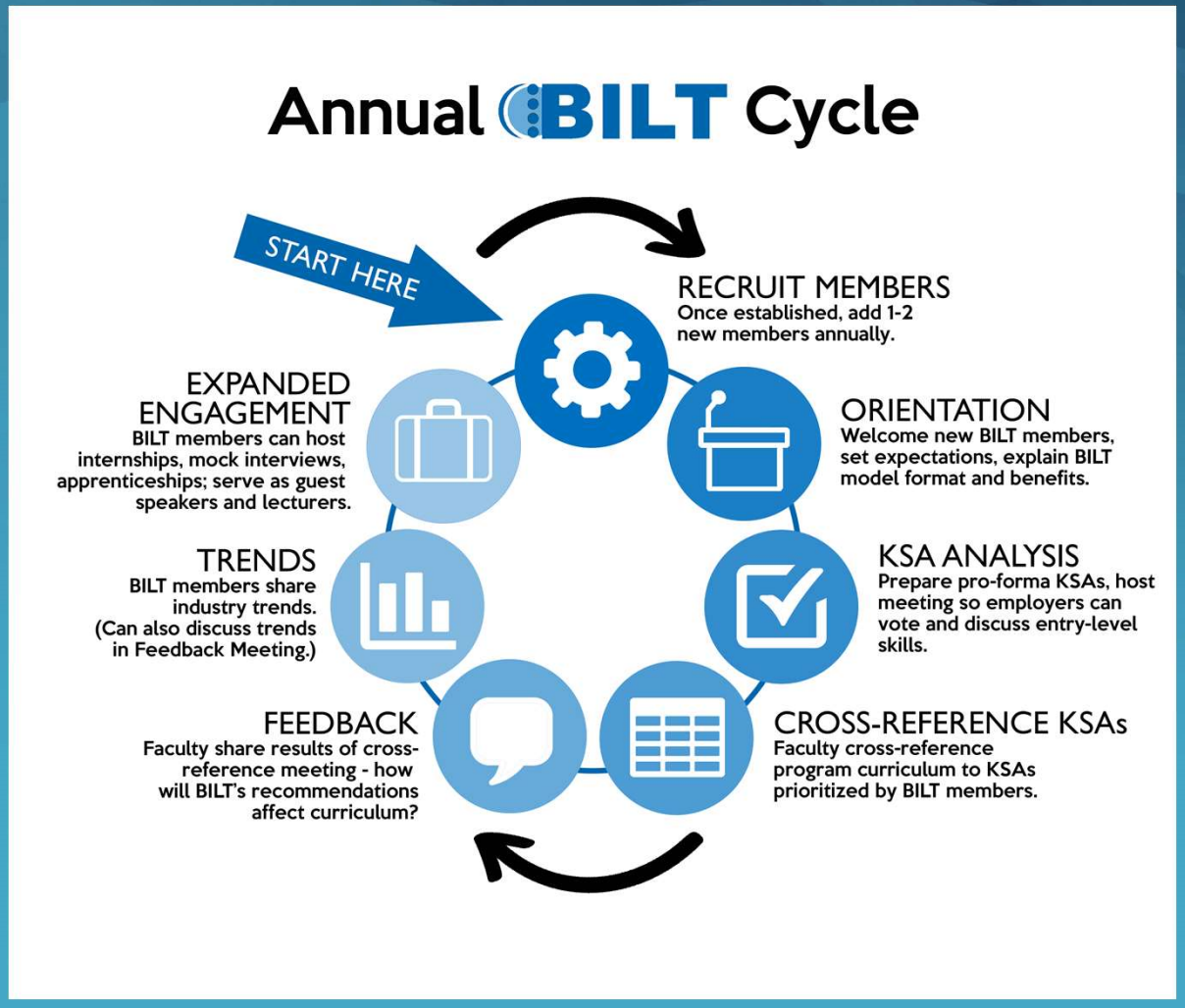
- Implemented at 100+ colleges and projects across multiple disciplines
- Department of Labor, Department of Education, and NSF recognize BILTs as a leading model for strategic employer engagement
- Scaled via NSF's "Pathways to Innovation" BILT Academy

Why Implement a BILT?

Versatile and flexible –

- Local BILT advising single college or district
- Regional BILT advising multiple colleges
- National BILT advising colleges coast to coast
- Project-specific BILT advising a particular initiative like a grant

BILTs work with any technical program at any size college.



Building and maintaining a BILT is a **high-touch activity** with **two-way communication**.

Each year --

* One job skills vote meeting (1.5-2 hours each)
* 2-3 trends meetings (1 hour each)

Emphasis is on growing a pipeline of right-skilled job candidates

Seven BILT Essentials

Seven BILT Essentials

Remember the two goals of a BILT

BUILD RELATIONSHIPS

ALIGN CURRICULUM

Seven BILT Essentials

1. **CONVENE** quarterly
2. **SCHEDULE** time BILT to talk industry trends
3. **INVITE** faculty to attend
4. **PRIORITIZE** a detailed list of job skills once a year
5. **MAP** prioritized job skills list to curriculum
6. **GIVE** regular feedback to the BILT
7. **ASSEMBLE** “single-discipline” BILTs

Seven BILT Essentials

1. **CONVENE** quarterly

Avoid “out of sight, out of mind.”

Zoom and Teams work great

Three shorter meetings for trends, one longer meeting for job skill votes.

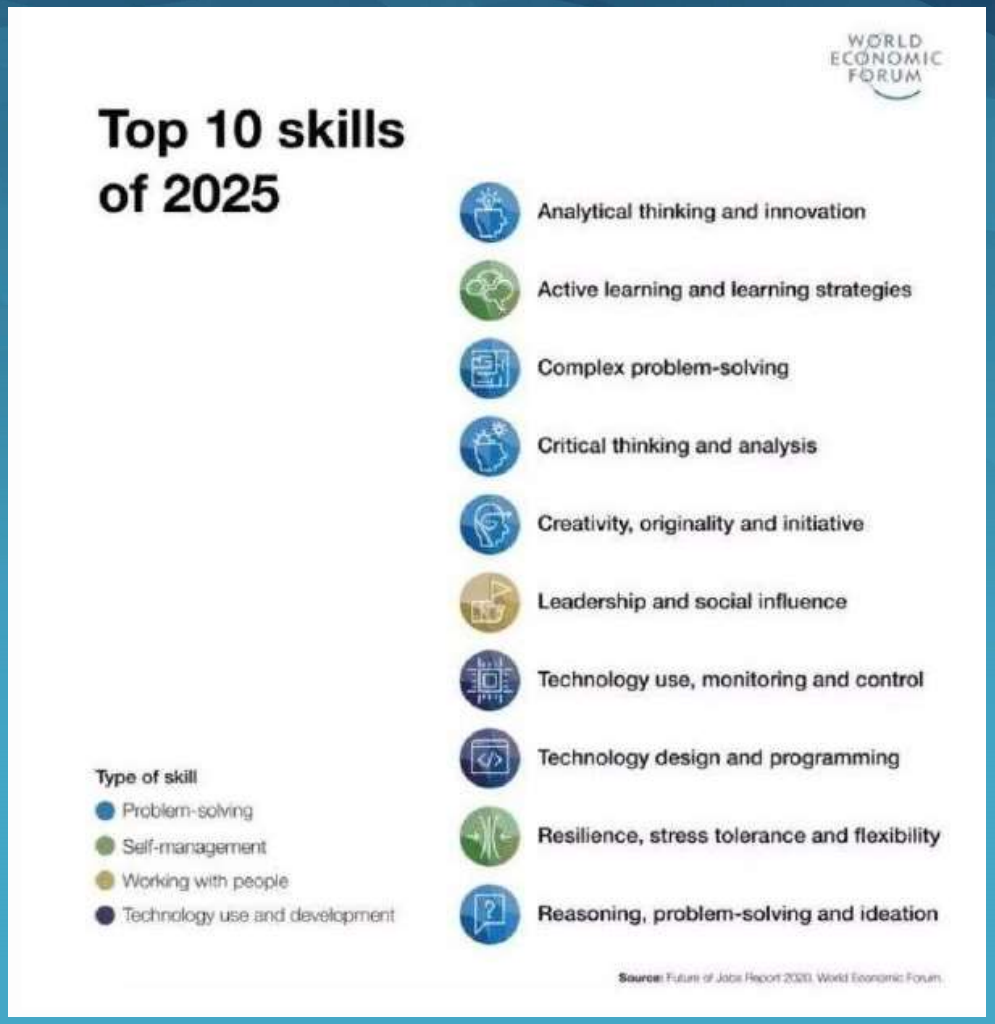
Seven BILT Essentials

2. **SCHEDULE** time to talk industry trends

Shorter meetings allow time for BILT members to share perspectives on industry trends.

Educators stay informed on what's coming.

Nothing proprietary.


WORLD ECONOMIC FORUM
Top 10 skills of 2025
Analytical thinking and innovation
Active learning and learning strategies
Complex problem-solving
Critical thinking and analysis
Creativity, originality and initiative
Leadership and social influence
Technology use, monitoring and control
Technology design and programming
Resilience, stress tolerance and flexibility
Reasoning, problem-solving and ideation
Type of skill
Problem-solving
Self-management
Working with people
Technology use and development
Source: Future of Jobs Report 2020, World Economic Forum.

FIVE I.T. TRENDS - Winter 2022

NATIONAL CONVERGENCE TECHNOLOGY CENTER

The list below summarizes IT trends discussed by the National CTC's BILT (Business and Industry Leadership Team) at the November 2022 meeting. The purpose of these "trend talks" is to keep faculty – and their students – informed on the ever-evolving IT landscape.

1. **Employability skills remain in demand.** Employers aren't interested solely in new hires' technical "hard" skills. Students also need to be nurturing their interpersonal skills, especially when it comes to working within their team and across other teams to find solutions to complex problems. Collaborating, building relationships, and problem solving are all essential skills. As much as students may dislike it, the best way to teach these concepts is through hands-on classroom group work where different personalities and perspectives must come together in pursuit of a single goal.
   Learn more: https://www.weforum.org/agenda/2020/10/top-10-work-skills-of-tomorrow-how-long-it-takes-to-learn-them/

2. **Data is increasingly moving to the edge.** More and more, there's no time for information to go all the way back to the traditional data center. Decisions and actions have to be made closer to the "edge" in a more distributed fashion. One employer noted that their customers often mistakenly think their cloud is secure based on the cloud provider's security system, but that's only securing the platform. It's up to the customer to take additional steps to secure the workloads and data that's inside the cloud at the edge.
   Learn more: https://www.redhat.com/en/blog/5-security-considerations-edge-implementations

3. **Certifications can get students past the HR gatekeeper.** It's important that students not just take certification classes, but take and pass the cert exam. At larger companies, HR will treat certifications as a filter. That is, if a job posting gets 200 applicants but the managers only want to interview 10 people, HR needs a way to winnow that pool of applicants down. Often, certifications provide the filter. Those with the cert make it to the interview, those without the cert don't.
   Learn more: https://www.indeed.com/career-advice/career-development/top-it-certifications

4. **Security clearances require a clean drug test.** One employer from a large defense contractor stressed how many fantastic, well-paying IT jobs require a security clearance. But if you can't pass a drug test cannot get the clearance. That includes marijuana use, which is not permitted. It's surprising how many otherwise qualified job applicants fail the drug test and don't get the job as a result.
   Learn more: https://www.dcsa.mil/Portals/91/Documents/pv/mbi/DCSA_SF-86%20Guide_070621.pdf

5. **AI is becoming "generative."** – Rather than task AI with "doing things," now AI will start to create value and develop new insights. That is, AI algorithms increasingly will create new content. Aside from online tools that produce art created by AI programs (https://hotpot.ai/art-generator), generative AI is happening now with pharmaceutical companies formulating new medicines and large defense contractors testing systems and predicting failures based on data rather than actual system performance. This will become more and more common across all industries.
   Learn more: https://www.altexsoft.com/blog/generative-ai/

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Seven BILT Essentials

3. **INVITE** faculty to attend

Let them hear first-hand from BILT members

Faculty available to ask and answer questions

Seven BILT Essentials

4. **PRIORITIZE** a detailed list of job skills once a year

Once a year, BILT members prioritize a detailed list of entry-level job skills for 12-36 months into the future.

Vote and discussion is a structured, repeatable process

Need more than 2 or 3 employers

Seven BILT Essentials

4. **PRIORITIZE** a detailed list of job skills once a year

You are either:
1. Developing a new job skills list
2. Updating last year's job skills list

Consensus is not the goal.

	Employability Skills (Abilities) August 27, 2024	# votes (4 = most important)				
		4	3	2	1	Avg
A-2	Integrity - Accountable, ethical, and fair. Consistent in thought, word, and action.	21	5	1	0	3.74
A-6	Dependability - Consistent, timely, and prepared. Able to follow directions, attend to details, and fulfill obligations.	20	6	1	0	3.70
A-1	Interpersonal Skills - Open-minded and emotionally intelligent. Builds strong relationships with everyone.	17	10	0	0	3.63
A-3	Professionalism - Non-defensive and composed under pressure. Demonstrates good judgement and a positive presence in all situations.	17	10	0	0	3.63
A-13	Critical and Analytical Thinker - Logical thinker. Analyzes information to draw conclusions.	17	10	0	0	3.63
A-12	Communications - Skilled communicator. Listens and speaks clearly or uses alternative communication methods.	16	11	0	0	3.59
A-15	Teamwork - Collaborative. Builds relationships and resolves conflicts to meet team objectives.	15	11	1	0	3.52
A-19	Problem Solving, Prevention, and Decision Making - Disciplined. Detects warning signs, uncovers causes, assesses alternatives, and uses decision-making tools.	14	12	1	0	3.48
A-14	Computer Skills - Tech-savvy. Shares information via safe and secure technology, hardware, and software.	14	10	2	0	3.46
A-8	Reading - Skilled in comprehension. Understands and uses text and figures in documents.	14	10	3	0	3.41
A-5	Adaptability and Flexibility - Agile. Able to find a path forward when situations are new, different, uncertain, unexpected, or rapidly changing.	13	11	3	0	3.37
A-4	Initiative - Self-starter. Begins challenging tasks with limited direction and sees them through to successful completion.	14	8	3	1	3.35

KS Rankings

4 The KS must be included in the curriculum

3 The KS really should be included in the curriculum

2 It would be nice for the KS to be included in the curriculum

1 The KS can be left out of the curriculum entirely

Seven BILT Essentials

5. **MAP** prioritized job skills list to curriculum

Faculty meets to map the prioritized job skills to identify gaps in program curriculum.

Curriculum adjustments are guided by gaps.

K or S	Explanation/Clarification		293	295	161	344	345	241	242	127	143	144	223	304	346	243	347	316	E's
		Avg.																	
K-1	Knowledge of how to identify the machining motion of a 3 axis CNC mill and a 2 axis CNC Turning Center	3.875	E	E		E	E		E					E	E	T	T		
K-2	Knowledge of how to identify the 4 quadrants of rectangular coordinate programming.	3.125				E	E		E						E	T	T		
K-3	Knowledge of how to identify CNC Milling machine and CNC Turning Center components.	3.375	E	E										E					
K-4	Knowledge of how to recognize incremental and absolute positioning.	3.250				E	E		E						E	T	T		
K-5	Knowledge of how to identify the proper coolant, oil, and air supply levels for CNC mills and turning centers.	3.000	E	E										E					

Seven BILT Essentials

6. **GIVE** regular feedback to the BILT

Ensures BILT members feel heard and valued.

Share how you implemented their suggestions.

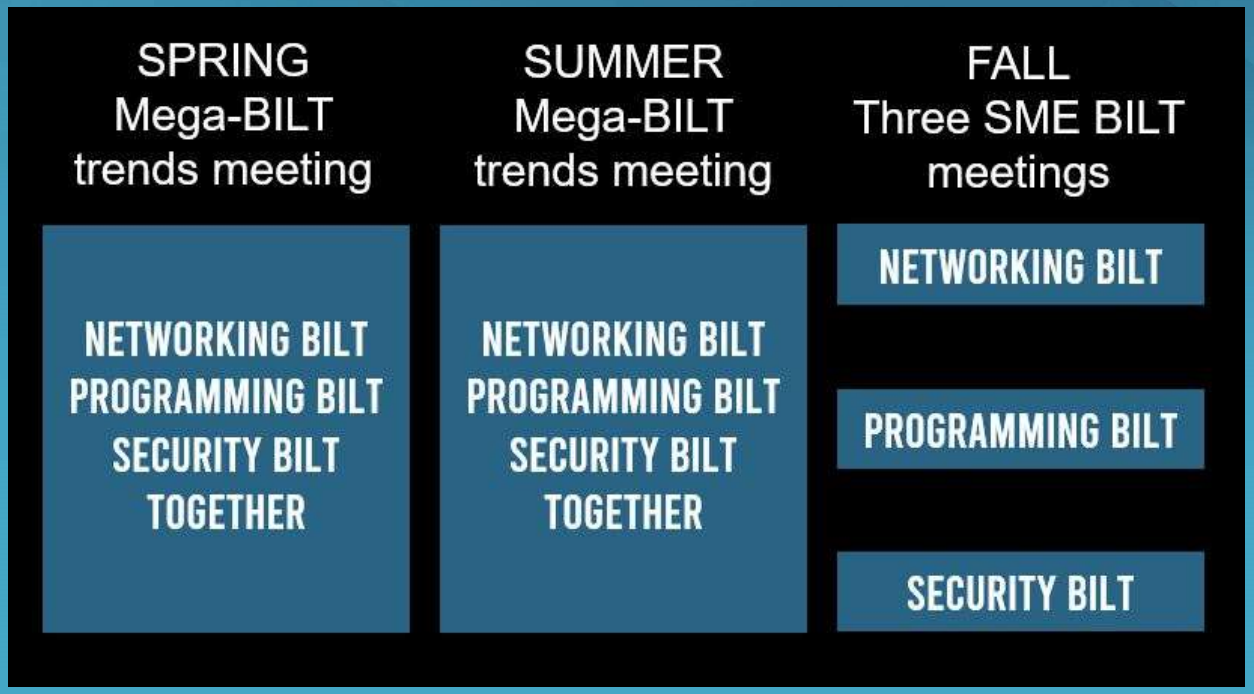
If you can't do what they ask, tell them – the BILT can sometimes offer solutions.

Seven BILT Essentials

7. **ASSEMBLE** “single-discipline” BILTs

Leverage the know-how of your subject matter experts in their specific discipline.

Seven BILT Essentials



"Mega-BILTs" for broad program discussions and trends

"SME BILTs" look at specific job skills for your specific disciplines

Synchronize input with additional sources of trends intel

Seven BILT Essentials

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The BILT Model

Free resources

EMPLOYER-LED CONTENT
https://www.nitic.org/industry/national-bilt/bilt-overview/

- Trends summaries
- Meeting minutes
- Job skills prioritization vote results

“HOW TO IMPLEMENT” CONTENT
https://www.youtube.com/@NationalITInnovationCenter

- Faculty Orientation
- Seven Essentials
- How to Use the Job Skills Spreadsheet

Recruiting Employers

Identifying the Right Members

Seek companies representative of those who hire your graduates.

Recruit various types and sizes of companies.

Confirm enough employers to get 8-10 to attend meetings.
>>50% of those who RSVP will not attend.

Identifying the Right Members

Must be able to predict both their specific future needs and the overall future needs of the industry.

- High-level technical executives
- First-line hiring managers
- Technicians

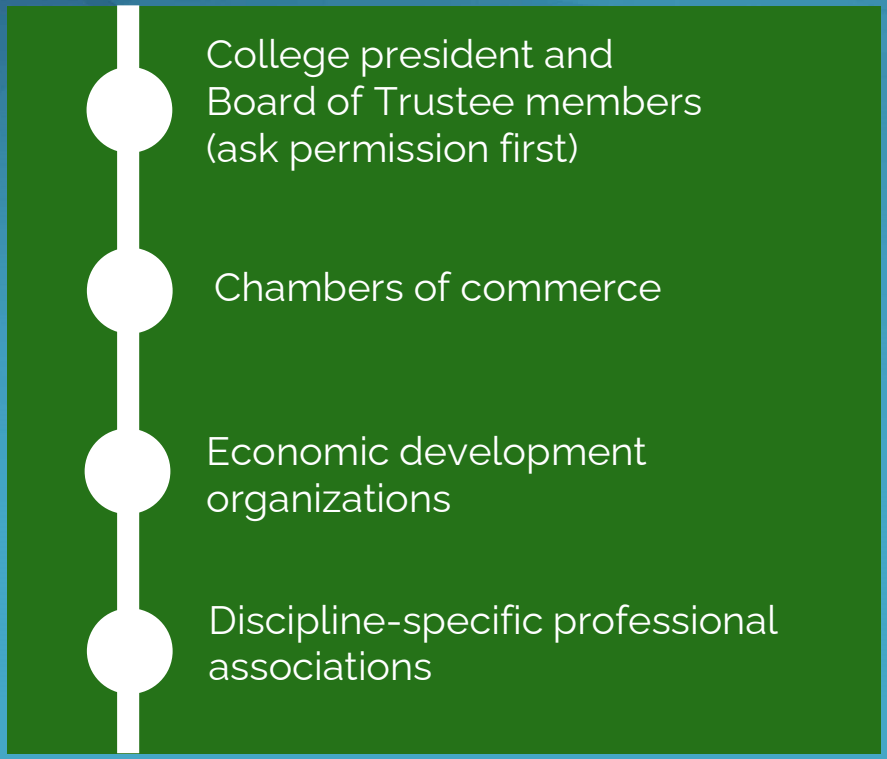
HR representatives should not be the only rep for the business.

Identifying the Right Members

Work with area groups that connect with employers.

You can also create a value proposition script and cold-call appropriate local businesses.

Address their WIIFM – what's in it for me?

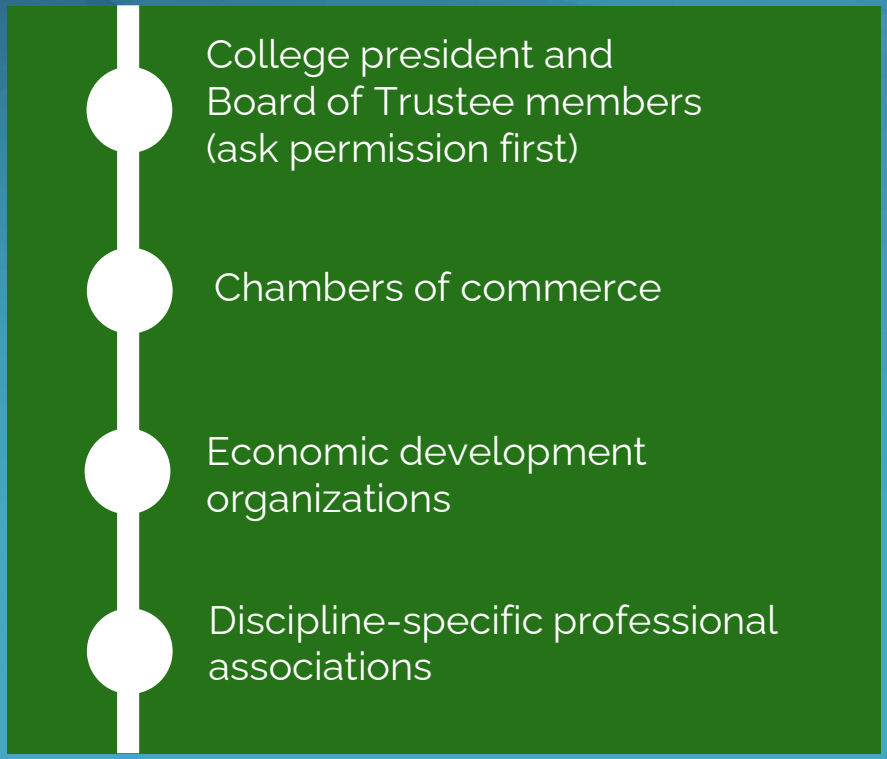


Identifying the Right Members

Ways to gauge subject matter expertise

- Ask
- Check out LinkedIn profiles
- Get referrals from those you know

Existing Advisory Council Members should not be fired!



Sample Recruitment Letter

At XYZ College, we're aware of the welding skills gap in our community and want your input on how we can increase your pool of qualified applicants. Our welding program is adopting the Business & Industry Leadership Team (BILT) model that puts employers in a co-leadership role. Our goal is to align curriculum with your talent needs so our graduates meet your requirements.

To accomplish this, we need a welding expert from your company to help identify the knowledge and skills you want in workers 12-36 months from now. The time commitment will be about 8 hours annually. We'll have four meetings: a job skills analysis meeting and 3 trends meetings.

Who from your company can join us?
(Provide date / time for Orientation or job skills meeting to close the pitch.)

The Elevator Pitch

Customize your pitch for each listener

Address the value of your work from the listener's point of view

Be mindful of their WIIFM

The Elevator Pitch

Best pitches are only 4-5 sentences and describe:

- Your program
- Why you need employer SMEs
- What you need them to do and how long it will take
- Potential WIIFM for them (can vary)
- Close by asking for participation

Addressing Concerns

Brainstorm possible objections and proactively develop responses

Develop additional questions to address other WIIFMs

- Would your company benefit from a trends discussion with other key employers in our area?

Sample Elevator Pitch

"We at (your college name) want to align a program in (program name) with employer demand in our area, and we are adopting the Business & Industry Leadership Team (BILT) Model for our advisory council. The BILT is a proven model that puts area employers in a co-leadership role for our programs.

We invite (business rep name or their company) to become part of our BILT team to guide our curriculum so that the knowledge and skills of our graduates better-align with your needs for job candidates.

Could you join us for a virtual orientation session in February or March (date TBD) to learn more about our BILT and how your participation may be beneficial? We will meet no longer than an hour."

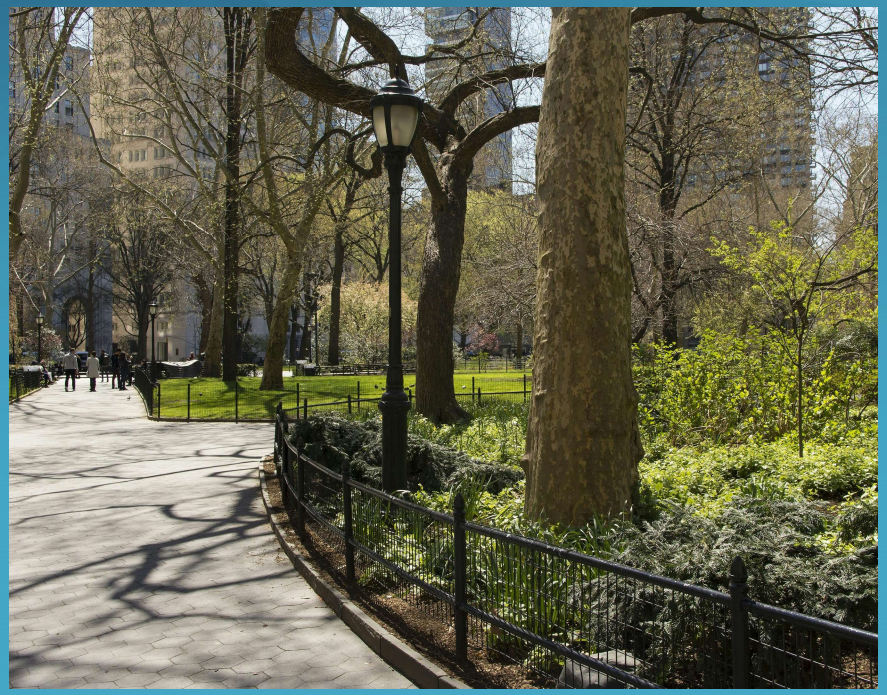
Recruiting Other Stakeholders

Recruiting Other Stakeholders

EXTERNAL TO COLLEGE
The community benefits

Workforce Boards, Economic Development Corporations, and Trade Associations typically want –

- More qualified workers in the region
- To listen in on employer meetings



Recruiting Other Stakeholders

INSIDE THE COLLEGE

The college benefits

- Administrators are often motivated by enrollment numbers
- Faculty want to teach relevant content
- Faculty want to be involved once they understand the value of the process
- Staff benefit from seeing how you've positioned your program to be more responsive to the community

The Elevator Pitch

Recruit and inform internal stakeholders

Customize your pitch

- Other Faculty
- Faculty Chair
- Dean and/or Associate Dean
- Vice President of Workforce
- President
- Trustees? (President makes this contact in most cases)

Getting Help with BILT Recruiting

ASK EXTERNAL STAKEHOLDERS

Ask for “warm” email or phone introductions / referrals to potential BILT members

- Workforce Board
- Chamber of Commerce
- Economic Development Corporations
- Associations in the discipline

Invite external stakeholders to attend BILT meetings as observers.

Sample Elevator Pitch – College VP

"Good to see you, Vice President Smith. I'd like you to know about the work we're doing to strengthen our Welding program and better align it with employer needs. We are implementing the Business & Industry Leadership Team (BILT) model that puts employers in a co-leadership role to guide our curriculum. This model has shown positive results at colleges across the country.

We are expanding our advisory council to include future-focused welding subject matter experts from local companies. They will participate in a structured job skills analysis process to identify the job skills our graduates should possess 12-36 months from now. Faculty will align and update our curriculum to make sure it addresses these industry priorities. We're excited about deepening employer engagement to strengthen the program so we can increase enrollments and meet local workforce needs.

[Ask for what you need from Vice President Smith here.]

Implementation Challenge

"I can't find employers to come to meetings or commit."

Once BILT members understand their voice is heard and realize they are co-leading the program, they will commit.

Address BILT members' "WIIFM" – what's in it for me?

Implementation Challenge

"I can't get my institution to buy in."

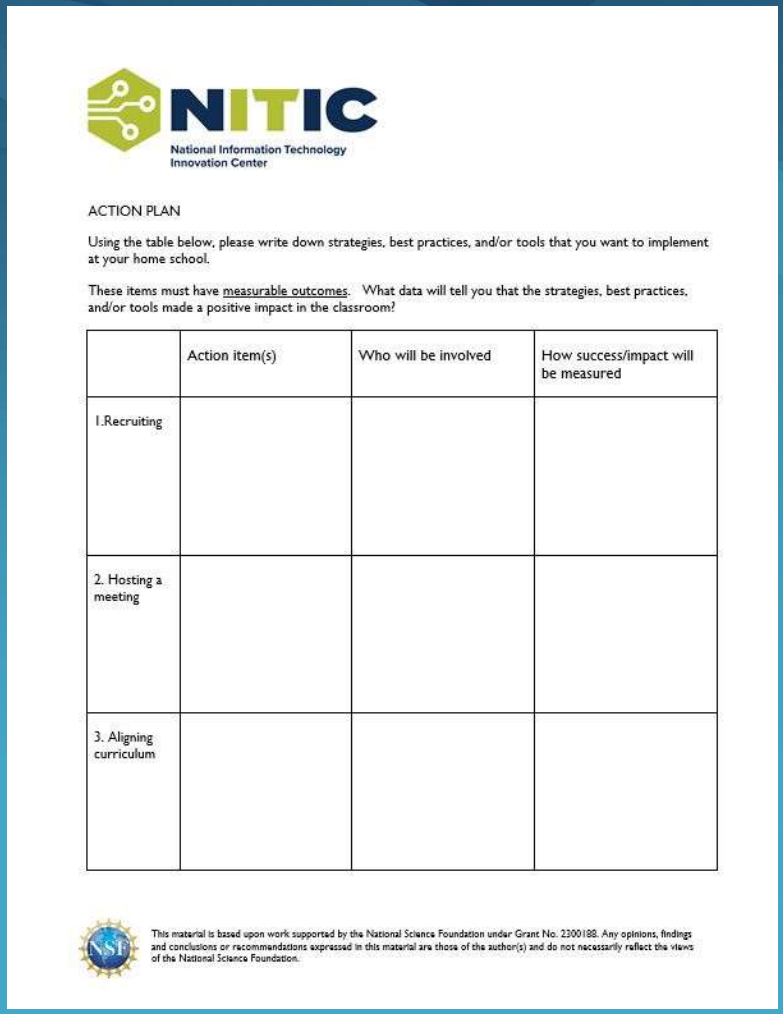
Start small (don't launch more than one!) to build your case for wider implementation. BILT success inspires copycat adoption.

Recruit a faculty "influencer" that others follow.

Call it a "pilot" project.

Action Plan

- Recruiting action items



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Break

The Job Skills Vote Meeting
Part I: Preparing

The Job Skills Vote Meeting

Start with a pro forma list, not a blank wall

The Pro Forma List

What is a pro forma list?

A starting point that provides metrics for discussion – a best estimate of knowledge/skills

Approximately 70-150 of knowledge and skills

The Pro Forma List

Creating the pro forma list

1. Compile pro forma job skills for employer evaluation using a variety of existing skill standards:
   - **NITIC job skills BILT lists**
   - NICE and NIST
   - Industry trade associations
   - CareerOneStop
   - State standards
   - Similar programs at other schools

2. Remove duplicated items

The Pro Forma List

Creating the pro forma list

3. Enter identified job skills into template spreadsheet, check again for duplicates

4. Create an online Google Form that is linked to a Google Sheet

The Pro Forma List

Using the pro forma list

- BILT members vote electronically on each item
- Prioritized results are automatically tabulated and displayed for discussion
- Employers may add, subtract, or modify items on the list
- Synchronous discussion is extremely important and is based on prioritized knowledge and skills as well as distribution of votes

A.I. Knowledge and Skills

March 4, 2025

	Knowledge	# votes (4 = most important)				
		4	3	2	1	Avg
K-1	Knowledge of History and Definition of AI.					
K-2	Knowledge of models in production.					
K-3	Knowledge of the big picture and history of AI, the					
K-4	Knowledge of Chatbots and their applications.					
K-5	Knowledge of CRISP-DM.					
K-6	Knowledge of Principles of Data literacy.					
K-7	Knowledge of Data Readiness Assessment.					
K-8	Knowledge of Developing Data Strategy.					
K-9	Knowledge of Designing Data Dictionaries.					
K-10	Knowledge of Accurate Representation of Data.					
K-11	Knowledge of Designing and Implementing Hybrid Data					
K-12	Knowledge of Ethical principles to be applied to AI					
K-13	Knowledge of Human Factors and Human Computer					
K-14	Knowledge of Human Centered Design.					
K-15	Knowledge of Management of IO Data Streams.					
K-16	Knowledge of Management of Public and Private Cloud					
K-17	Knowledge of Cloud Data Infrastructure Operations and					
K-18	Knowledge and understanding of Data/AI Accountability					

The Job Skills Vote Meeting
Part 2: Hosting

Scheduling

Ensure a non-biased facilitator can be there for job skills meeting

Invite employers once the date is set

Remember – this meeting is longer: approx. 2-2.5 hours

TIP: 50% of your “yes” RSVPs will not show up.

TIP: Early morning may work better.

Logistics

In-person environment –

Verify audiovisual capability
- Screen
- Sound system, including mic
- Conference phone
- Wireless internet access

U-shape table
Catering (coffee/water at minimum)
Convenient location
Explain to attendees there will be internet voting

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Meeting Agenda

- Welcome - program lead's supervisor
- Introductions around the room
- Explanation of BILT approach and goals of the meeting
- Share the voting link, voting begins
- Discussion of results (bulk of meeting)
- Q&A
- Discuss next steps
- Schedule next meeting that will provide feedback to the BILT

Invitations

STEP 1: Send invitation with meeting details via email

Include…

- “WIIFM” (value proposition)
- Meeting format - face-to-face, virtual, or both (suggest both)
- Whether or not there will be food provided if in-person

TIP: Your first email contact should NOT be a calendar appointment request. After they say “yes,” then send a calendar invitation.

Invitations

STEP 2: Follow ups

One week after the invitation goes out, phone those who have not responded and ask them to attend

One week prior, email reminder to all (except those who said no) and provide…

- Agenda
- Meeting connection info - virtual
- Map and parking instructions - in-person

One day prior, email this reminder again

Creating the Voting Form

One week prior to the meeting…

1. Make sure you are satisfied with the pro forma job skills list BEFORE you convert it into the linked Google Form/Sheet. (Changes often require starting over.)

2. Convert the pro forma job skills list into the linked Google Form/Sheet – directions via this QR code.

3. Run an office test vote to check the form (test votes can be removed).

Meeting Roles

Industry Subject Matter Experts - Participate in ratings and discussion

Faculty Subject Matter Experts - Attend as active listeners

Facilitator - Process expert responsible for the efficiency/effectiveness of meeting

Minute-taker - Records discussion, prepares meeting minutes (video recording)

Spreadsheet Editor - Captures BILT comments on spreadsheet in real-time

BILT Roles - Business

Co-lead college programs through quarterly meetings

Annually prioritize knowledge and skills they want graduates to have 12-36 months into the future using structured, repeatable voting process

Predict labor market demand

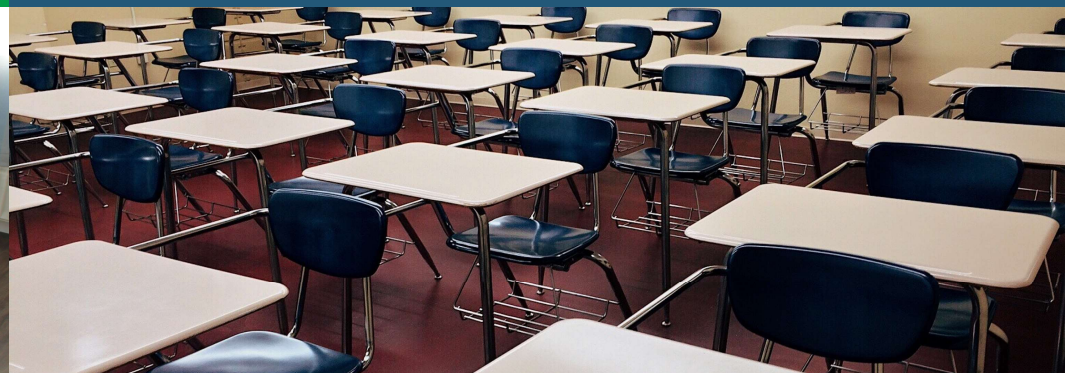
Identify industry trends that could impact the program

BILT Roles – Faculty

Cross reference knowledge and skills to existing curriculum

Update curriculum to address job skills prioritized by businesses

Provide businesses with feedback regarding implementation



BILT WIIFM - Business

Entry-level employees with “hit-the ground-running” skills (Saves $$)

Ability to tangibly give back to the community

Ability to tap eager talent in transitioning to the workforce

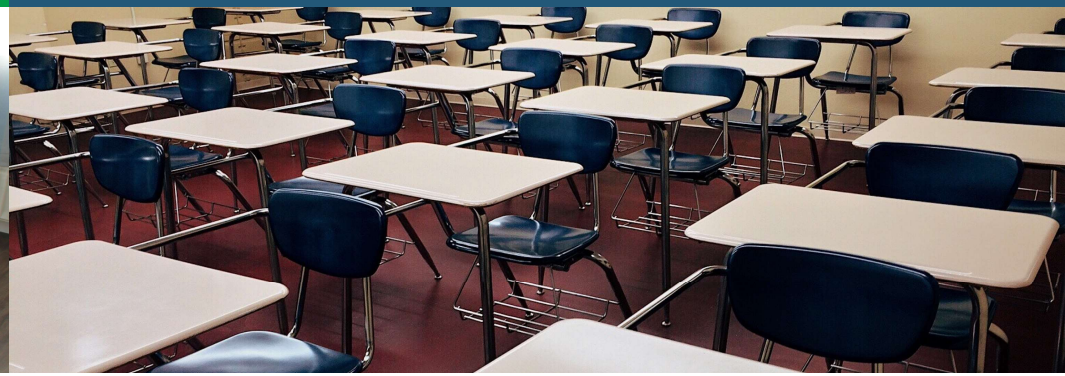
Time value realized and appreciated

BILT WIIFM – Faculty

Delivering relevant, industry sought-after skills

Students more prepared to enter the workforce

Early business engagement exposes students to business perspective (mentoring, internships, business-graded capstone courses)



Implementation Challenge

"No one wants to do the vote meeting."

Free-flowing discussions will not provide actionable metrics for faculty to reference when updating curriculum.

Free online tools now make voting simple and efficient.

Implementation Challenge

"Faculty don't want to give up control of the program to employers."

BILT meetings focus on job skills, not course content.

Educators remain the classroom experts – they decide how and when to teach the BILT's requested job skills.

Voting Demo

- Knowledge – awareness and understanding of theoretical (not practical) concepts; this is NOT "knowing how to do it"
- Skills – capabilities or proficiencies developed through hands-on experience; this is "knowing how to do it"

Abstentions are okay if you're uncomfortable voting on a specific item

Discuss skills, not courses

KS Rankings

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

Voting Demo

Vote demo – prioritizing life skills high school grads need to know

KS Rankings

4 The KS must be included in the curriculum

3 The KS really should be included in the curriculum

2 It would be nice for the KS to be included in the curriculum

1 The KS can be left out of the curriculum entirely

Two Vote Meeting Elements

Both are equally important

VOTING

Create prioritized rankings

DISCUSSION

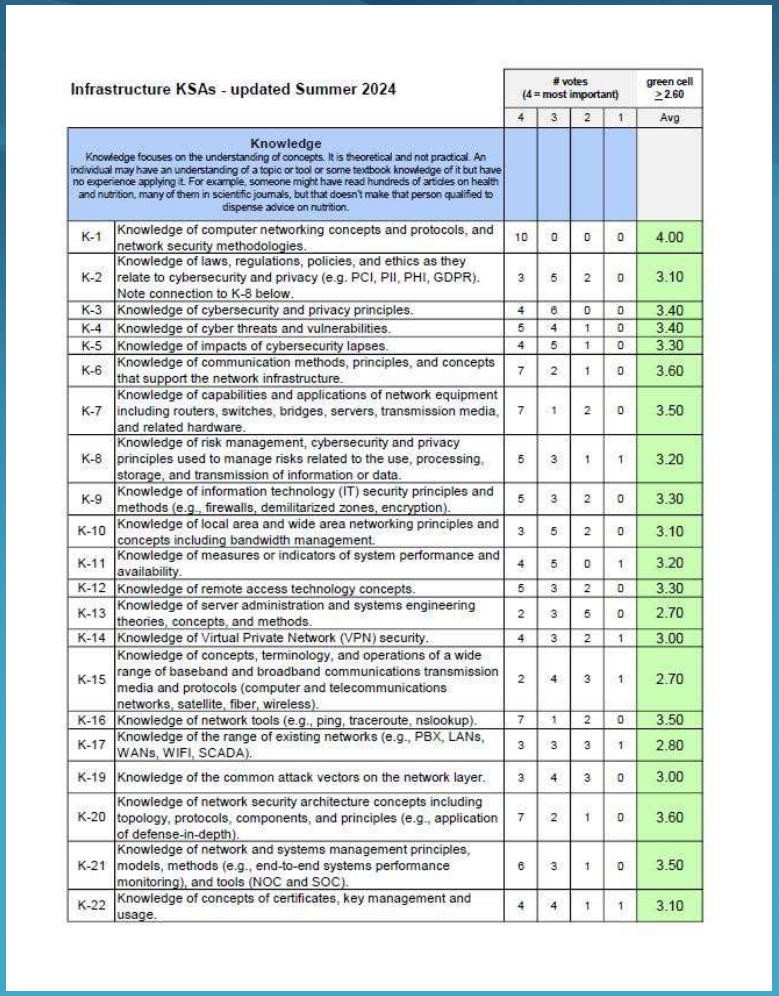
Talk about the vote results
Ask clarifying questions
Edit line items as needed

Job Skills Spreadsheet

Three categories of BILT feedback

- Items to keep
- Items recommended to remove
- Emerging items that should be discussed next time

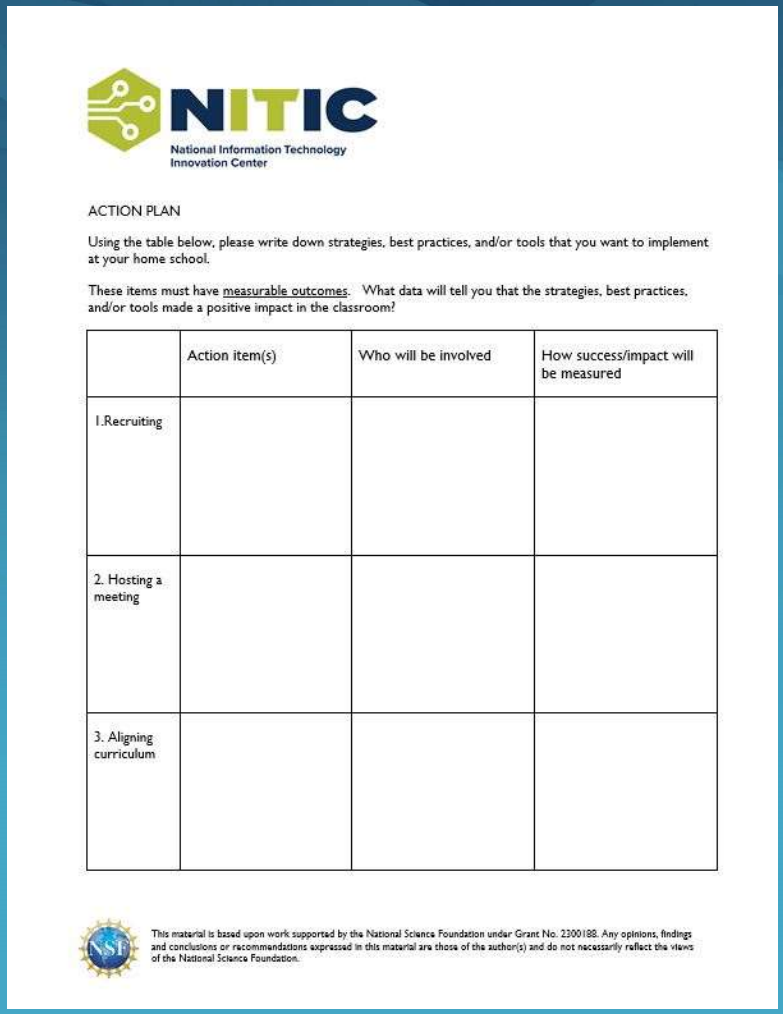
Kinds of job skills that are prioritized and discussed will vary



Infrastructure KSAs - updated Summer 2024		# votes (4 = most important)				green cell ≥ 2.60
		4	3	2	1	Avg
Knowledge Knowledge focuses on the understanding of concepts. It is theoretical and not practical. An individual may have an understanding of a topic or tool or some textbook knowledge of it but have no experience applying it. For example, someone might have read hundreds of articles on health and nutrition, many of them in scientific journals, but that doesn't make that person qualified to dispense advice on nutrition.						
K-1	Knowledge of computer networking concepts and protocols, and network security methodologies.	10	0	0	0	4.00
K-2	Knowledge of laws, regulations, policies, and ethics as they relate to cybersecurity and privacy (e.g. PCI, PII, PHI, GDPR). Note connection to K-8 below.	3	5	2	0	3.10
K-3	Knowledge of cybersecurity and privacy principles.	4	6	0	0	3.40
K-4	Knowledge of cyber threats and vulnerabilities.	5	4	1	0	3.40
K-5	Knowledge of impacts of cybersecurity lapses.	4	5	1	0	3.30
K-6	Knowledge of communication methods, principles, and concepts that support the network infrastructure.	7	2	1	0	3.60
K-7	Knowledge of capabilities and applications of network equipment including routers, switches, bridges, servers, transmission media, and related hardware.	7	1	2	0	3.50
K-8	Knowledge of risk management, cybersecurity and privacy principles used to manage risks related to the use, processing, storage, and transmission of information or data.	5	3	1	1	3.20
K-9	Knowledge of information technology (IT) security principles and methods (e.g., firewalls, demilitarized zones, encryption).	5	3	2	0	3.30
K-10	Knowledge of local area and wide area networking principles and concepts including bandwidth management.	3	5	2	0	3.10
K-11	Knowledge of measures or indicators of system performance and availability.	4	5	0	1	3.20
K-12	Knowledge of remote access technology concepts.	5	3	2	0	3.30
K-13	Knowledge of server administration and systems engineering theories, concepts, and methods.	2	3	5	0	2.70
K-14	Knowledge of Virtual Private Network (VPN) security.	4	3	2	1	3.00
K-15	Knowledge of concepts, terminology, and operations of a wide range of baseband and broadband communications transmission media and protocols (computer and telecommunications networks, satellite, fiber, wireless).	2	4	3	1	2.70
K-16	Knowledge of network tools (e.g., ping, traceroute, nslookup).	7	1	2	0	3.50
K-17	Knowledge of the range of existing networks (e.g., PBX, LANs, WANs, WIFI, SCADA).	3	3	3	1	2.80
K-19	Knowledge of the common attack vectors on the network layer.	3	4	3	0	3.00
K-20	Knowledge of network security architecture concepts including topology, protocols, components, and principles (e.g., application of defense-in-depth).	7	2	1	0	3.60
K-21	Knowledge of network and systems management principles, models, methods (e.g., end-to-end systems performance monitoring), and tools (NOC and SOC).	6	3	1	0	3.50
K-22	Knowledge of concepts of certificates, key management and usage.	4	4	1	1	3.10

Action Plan

- Hosting action items



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ACTION PLAN

Using the table below, please write down strategies, best practices, and/or tools that you want to implement at your home school.

These items must have measurable outcomes. What data will tell you that the strategies, best practices, and/or tools made a positive impact in the classroom?

	Action item(s)	Who will be involved	How success/impact will be measured
1.Recruiting			
2. Hosting a meeting			
3. Aligning curriculum			

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Aligning Curriculum

Cross-Reference

Compare the recommendations of the BILT members to your curriculum – looking for gaps

- Involve all faculty teaching in the program under consideration.
- Determine the vote “cutoff” value

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K-3	Knowledge of cybersecurity and privacy principles.	4	6	0	0	3.40
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K-6	Knowledge of communication methods, principles, and concepts that support the network infrastructure.	7	2	1	0	3.60
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K-22	Knowledge of concepts of certificates, key management and usage.	4	4	1	1	3.10

Cross-Reference

A	B	C	D	E	F	G
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.	6	9	2	2	3.00
K-2	Knowledge of risk management processes (e.g., methods for assessing and mitigating risk).	2	9	5	3	2.53
K-3	Knowledge of laws, regulations, policies, and ethics as they relate to cybersecurity and privacy.	3	9	6	1	2.74
K-4	Knowledge of cybersecurity and privacy principles.	5	10	2	2	2.95
K-5	Knowledge of cyber threats and vulnerabilities.	2	11	2	4	2.58
K-6	Knowledge of specific operational impacts of cybersecurity lapses.	3	9	5	2	2.68

- Green cells are high-priority items
- Pink cells are low-priority items

Cross-Reference

A	B	C	D	E	F	G	J	K	L
Infrastructure KSA									
Knowledge		# votes (4 = most important)					IT 1100	ITNW 1105	CYBR 1105
		4	3	2	1	Avg	Intro to Computers	Intro to Networking	Intro to Cybersecurity
K-1	Knowledge of computer networking concepts and protocols, and network security methodologies.	6	9	2	2	3.00			
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Create columns to the right for all program courses

Cross-Reference

A	B	C	D	E	F	G	J	K	L
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K-6	Knowledge of specific operational impacts of cybersecurity lapses.	3	9	5	2	2.68			E

Take one course at a time and insert…

- “E” for introductory or exposure coverage
- “T” for thorough coverage
- Leave blank if there is no coverage for the course

Cross-Reference

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K-5	Knowledge of cyber threats and vulnerabilities.	2	11	2	4	2.58			
K-6	Knowledge of specific operational impacts of cybersecurity lapses.	3	9	5	2	2.68			E

- High-priority “green” cells with no coverage that remain, highlight in red
- High-priority “green” cells with “E” coverage only, highlight in yellow

Add a module or create a whole new course

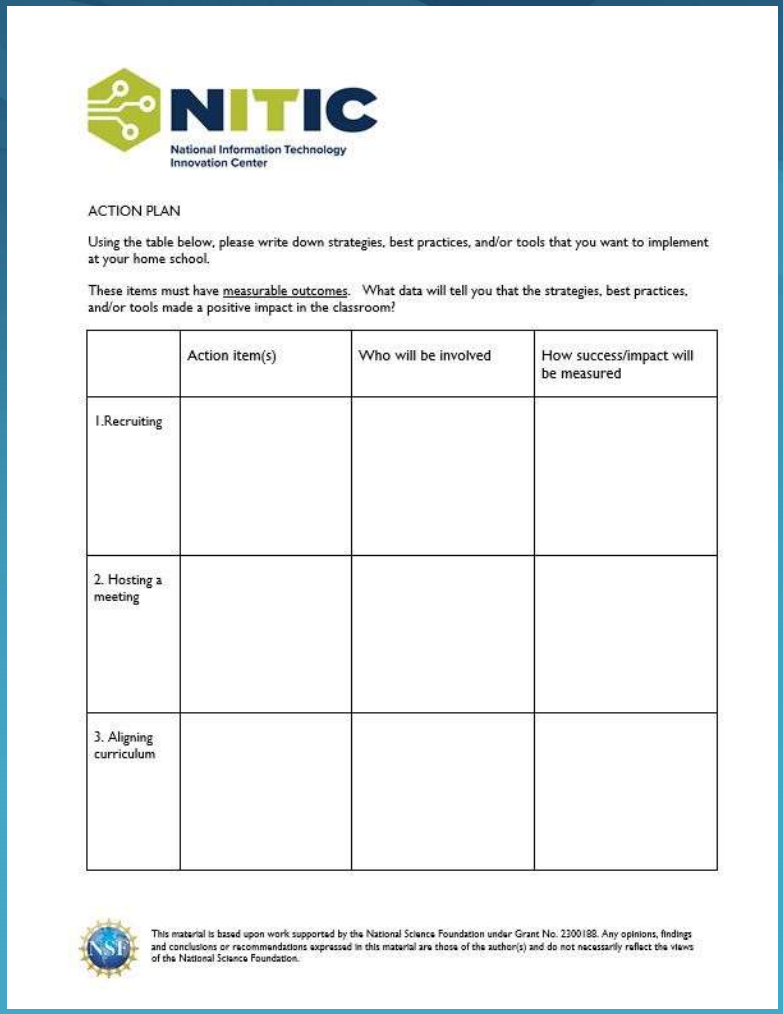
BILT Feedback Meeting

- Show the final color-coded sheet
- Explain the mappings
- Ask first about the red lines (remaining green cells with no coverage) -- problem-solve with BILT possible solutions or determine if that item really necessary for the graduate?
- Ask next about the yellow lines (green cells with only exposure) – does that item need more depth?

Based on this feedback, faculty decides on next steps, then reports to BILT at the next meeting.

Action Plan

- Aligning curriculum action items



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The Trends Meeting

The Trends Meeting

1. Industry Trends (85%) – Listen to BILT member insights

- What keeps them up at night?
- What new trends are on the horizon?

Keeps faculty informed between annual vote meetings

2. Progress Report (15%) – Share results of the faculty mapping meeting

- What did you do with BILT feedback?
- What can't you do with BILT feedback?

Make them feel heard and valued

The Trends Meeting

Job search strategies	Handling data sets ethically	Generative AI
IP and AI	Value of foundational IT skills	Understanding the business context
Integrated sensors	Agentic AI	Essential soft skills
Cloud providers	LLMs	Containers and microservices

Recap

Everyone Wins

Employers
connect with a pipeline of "workforce ready" candidates/ talent

Faculty
have assurance they're teaching the skills the workforce demands.

Students
are first to be considered for internships/ apprenticeships and job openings.

Programs
develop a pool of industry expert advisers to support all aspects of a program.

Business Advisory Council	BILT
May meet once or twice a year	Meets quarterly
May “rubber stamp” existing program	Actively helps faculty improve the program
Faculty may drive meeting agenda	Employers help develop agenda – especially sharing trends
May only give advice and suggestions	Co-leads
Job skills recommendations delivered through discussions	Job skills recommendations created through voting process
May not be highly invested in success of the program	Feels an ownership in the program and its students
May not be kept in the loop on how suggestions implemented	Regularly informed on how suggestions implemented

What Can You Do?

- Be sure your BILT is sufficiently focused (one BILT per sub-discipline)
- Schedule regular, frequent meetings
- Invite faculty to attend BILT meetings
- Allow BILT members to regularly share perspectives on future trends
- Conduct annual job skills validation
- Crosswalk those updated skills to curriculum and make adjustments
- Report back to the BILT – ensure they feel heard and valued

Review Game

- 16 questions
- 1-2 points per question
- Last question worth 5 points
- Picking avatar and entering name (keep your name short)
- Slides with Friends

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TONIGHT at HITEC	5:15pm-6:15pm, Networking Mixer St Croix room – 6th floor
TOMORROW at HITEC	10:15am-11:00am, Showcasing Top IT Trends Transforming Technical Education St Croix room – 6th floor
	9:45am-10:15am, 3:00pm-3:15pm, 4:00pm-5:15pm, Exhibit Hall booth #124

THIS FALL, for ITIN members –

- Tue, Aug 19 – quarterly "megaBILT" trends web meeting, 10:30am-11:30am Eastern
- Fri, Sep 12 – ITIN web meeting (Welcome Back!), 1:00pm-2:00pm Eastern
- Wed, Sept 17 – Tech Talks: Emerging IT and Cross Sectors Integration, 1:00pm-2:00pm Eastern
- Fri, Oct 3 – ITIN web meeting (Equipped for the Job Market), 1:00pm-2:00pm Eastern
- Wed, Oct 8 – ITIN webinar (AI tools part 1), 1:00pm-2:30pm Eastern
- Wed, Oct 15 – ITIN webinar (AI tools part 1), 1:00pm-2:30pm Eastern

Action Plan

Please upload your final action plan items!

bit.ly/HITEC25nitic

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Pathways to Innovation
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