Get Meaningful Program Advice From Your Advisory Committee with BILT

HLC Annual Conference 2018

A DISCONNECT BETWEEN HIGHER EDUCATION AND THE WORKPLACE

96 percent of Chief Academic Officers rate their institution as very/somewhat effective at preparing students for success in the workforce

just **11 percent** of business leaders strongly agree that today's college graduates have the skills and competencies that their business needs.

Source: the Lumina Foundation/Gallup Poll 2013

TYPICAL ADVISORY COMMITTEE

- Meets once per year, usually over lunch or dinner

- Maybe advises, but often is just "advised" about the current state of the program

ADVISORY TEAM RESULTS

Typical	Desired
A "rubber stamp" relationship	Honest input into program needs
May or may not be truly engaged	Engaged & invested in the program
May or may not be people at the right level to really help the program	The right members to advise about program needs
May result in programs that produce graduates that are not **tightly aligned** with business needs	Degrees aligned with job opportunities Graduates with the skills for our local/regional workplace

HOW TO MOVE FROM TYPICAL TO DESIRED?

Typical Results → **Desired Results**

HOW TO MOVE FROM TYPICAL TO DESIRED?

BILT

Typical Results ➔ **Desired Results**

BILT: Business and Industry Leadership Team

EXPECTATIONS OF A BILT

One on campus meeting per year:

- ▪ to establish or update Knowledge, Skills, and Abilities (KSAs) needed from Northark graduates.

- ▪ 3-4 hours

Two to three "virtual" meetings each year:

- Trends in the field
- Reporting/feedback
- Requests/planning
- 1 hour maximum

BUSINESS & INDUSTRY LEADERSHIP TEAM

BILT is a **Leadership** partner, not an Advisory committee

HOW TO BUILD THE BILT

WHAT DO YOU WANT FROM THE BILT?

❑ Expected Time Commitment

❑ Expected Involvement & Activities:

- KSA analysis (job skills validation)
- Course & curriculum validation
- Job forecasting

- Equipment donations
- Job shadowing
- Guest speakers
- Student contacts
- Internships

THE RIGHT TEAM

Choose the right companies

- ▶ Businesses, industries, agencies, non-profits, universities
- ▶ Small, medium, & large companies
- ▶ Diverse type of businesses: not just ones that <u>focus</u> on the discipline

Choose the right representatives

- ▶ High-level technical executives
- ▶ First line managers
- ▶ Technicians
- ▶ HR reps okay, not as the sole rep for a company

NORTHARK'S NETWORK/CYBER BILT

Representatives from:

- ▶ Banks
- ▶ Telecommunications
- ▶ Schools
- ▶ Hospitals
- ▶ Marketing Firms
- ▶ IT Firms
- ▶ Trucking/Logistics Companies
- ▶ Manufacturers

RECRUIT MEMBERS

SHARE YOUR VISION OF THE PROGRAM AND THE BILT

▸ Personal contact is best (pick up the phone, follow up in writing)

▸ Start at the top – the CEO – to create buy in

  OR use existing contacts where needed or appropriate

▸ Mention grants, plans for growth, etc.

▸ Stay fresh – add new members regularly

THE ANNUAL FACE TO FACE MEETING

TYPICAL AGENDA

1. Welcome

2. Introduction to BILTs

3. Job Skills Analysis &Validation

4. Lots of Food

STARTING POINT:
ST OF KSAs

Skills for an entry-level IT worker…

National Business and Industry Leadership Team (BILT)
Knowledge Domains - updated August 2017

Skills for an entry-level IT worker looking for a job 2-3 years from Fall 2017.

KSA	Knowledge, Skill, Ability	Topics	# votes (4 = most important)			
			4	3	2	1
K1	Linux / Unix OS	Current within 3 years, as of now the operating system of the IoT				
K2	Windows Server OS	Current within 3 years, need this background for AWS and Azure				
K3	Operating System Maintenance	Includes topics such as account mgmt, installing apps, command line, directory, file structures, os scripting, config modification, backup/restore, os admin, scheduler, stopping/starting services, change control, documentation, awareness of KPI and SLA/OLA, log files and patches, ACL.				
K4	OSI Model	Layer 1: physical layer Layer 2: data link layer Layer 3: network layer Layer 4: transport layer Layer 5: session layer Layer 6: presentation layer Layer 7: application layer Provide basic framework for how it all works, including how cloud computing has impacted the conceptualization of the seven layers. Plus and awareness of IP multimedia services. Understand that OSI is the framework for all problem solving and troubleshooting				

WHERE TO GET A MASTER LIST OF KSAs?

Ours is from the national BILT of the National Convergence Technology Center (CTC)

NATIONAL SCIENCE FOUNDATION
ADVANCED TECHNOLOGICAL EDUCATION CENTERS

Fields of technology supported by the ATE program include, but are not limited to:

- ADVANCED MANUFACTURING TECHNOLOGIES
- AGRICULTURAL & BIO TECHNOLOGIES
- ENERGY & ENVIRONMENTAL TECHNOLOGIES
- ENGINEERING TECHNOLOGIES
- INFORMATION TECHNOLOGIES
- LEARNING, EVALUATION & RESEARCH
- MICRO & NANO TECHNOLOGIES
- SECURITY TECHNOLOGIES

CTC is one of several national and regional NSF ATE centers.
www.atecenters.org

Other Sources for KSAs

- Accrediting/licensure agencies

- Certification organizations

- Discipline specific national organizations

ROLES FOR THE MEETING

▶ <u>BILT Members</u> - Industry Subject Matter Experts. Participate in validation ratings and discussion

▶ <u>Faculty Members</u> – Subject Matter Experts. Observers. (can participate if called on)

▶ <u>Facilitator</u>

Responsible for efficiency & effectiveness of meeting

▶ <u>Vote Counters</u>

▶ <u>Recorder(s)</u> - Records discussion, minutes, and # of votes

KSA VALIDATION PROCESS

BILT Members rate each knowledge area/skill
from 1 (least important) to 4 (most important)

		4	3	2	1	Avg
Linux / Unix OS	Current within 3 years, as of now the operating system of the IoT	0	10	0	0	3.0
Windows Server OS	Current within 3 years, need this background for AWS and Azure	7	2	0	0	3.8

KSA VALIDATION PROCESS

BILT Members rate each knowledge area/skill from 1 (least important) to 4 (most important)

NOTE: Lots of Discussion, but NOT Attempting to Achieve Consensus

KSA VALIDATION PROCESS

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National Business and Industry Leadership Team (BILT)
Knowledge Domains - updated Augu...

Network/IT BILT September 29, 2017 | *Skills for an entry-level IT worker looking for a job 2...*

to establish priority KSA's

KSA	Knowledge, Skill, Ability	Topics	4	3	2	1	Avg
K1	Linux / Unix OS	Current within 3 years, as of now the operating system of the IoT	0	10	0	0	3.0
K2	Windows Server OS	Current within 3 years, need this background for AWS and Azure	7	2	0	0	3.8
K3	Operating System Maintenance	Includes topics such as account mgmt, installing apps, command line, directory, file structures, os scripting, config modification, backup/restore, os admin, scheduler, stopping/starting services, change control, documentation, awareness of KPI and SLA/OLA, log files and patches, ACL.	0	8	1	0	2.9
K4	OSI Model	Layer 1: physical layer Layer 2: data link layer Layer 3: network layer Layer 4: transport layer Layer 5: session layer Layer 6: presentation layer Layer 7: application layer Provide basic framework for how it all works, including how cloud computing has impacted the conceptualization of the seven layers. Plus and awareness of IP multimedia services.	8	1	0	0	3.9

AFTER THE MEETING FACULTY MEMBERS:

- Prepare course/KSA crosswalk
- Identify curricular gaps
- Make adjustments

IDENTIFY CURRICULAR GAPS

Faculty "map" the KSAs to existing courses and Identify Gaps

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Crosswalk: KSAs with Courses

KSA		Gap	Thorough			Exposure			
			Course 1	Course 2	Course 3	Course 4	Course 5	Course 6	
			Troubleshooting	CCNA1	CCNA2	MS OS I	MSOS II	PC Repair/A+	
K9	Troubleshooting		T	T	T	E	E	T	
K10	Infrastructure Monitoring and Restoration					T	T	T	
	Network Security:		E	E	E	T	T	E	
			T	T	T	T			
							E		
			E		E	T			
	G: Application Interactions	G							
	G: Managing Environments at Scale	G							
K11			E	E	E	E	E		
			E		T	T			
	G: Change Process Control	G							

MAKE ADJUSTMENTS

▸ Faculty determine what curricular changes are needed

▸ When necessary, changes are approved by the Curriculum Committee

Proposed Degree Plan

Information Technology (Associate of Applied Science)

Emphasis in Network/Systems Administration

Course	ACTS	Title
First Semester (Fall)		
CIS 1103	CPSI1003	Introduction to Information Technology
CIT 1103		Network Fundamentals (CCNA1)
CIT 1143		PC Repair/A+
CIT 1101		Computer Troubleshooting I
ENGL1013	ENGL1013	English Composition I
CIT 1123		Microsoft Operating Systems
Second Semester (Spring)		

THIS YEAR'S ADJUSTMENTS

▸ Microsoft Operating Systems I & II: content and description changed

▸ Security II: Content changed

▸ Creation of Special Topics in Information Technology Class

▸ Addition of hours to the Internship course

▸ Intro to Business course replaced with Human Relations

OTHER MEETINGS:
TWO TO THREE "VIRTUAL" PER YEAR

Typical Agenda

▸ Trends in the field (allows time to anticipate curricular changes)

▸ Reporting/feedback from and to Northark

▸ Requests/planning

▸ 1 hour maximum

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Northark's IT-Cybersecurity Business & Industry Leadership Team
September 29, 2017

TRENDS & ISSUES FROM THE LAST MEETING

- Future trends: what do you see as the impact of AI on your daily business practices?

- Have you experienced new forms of cyberattacks or hardware vulnerabilities? Are you seeing impacts from Meltdown, Spectre, or similar hardware vulnerabilities?

BENEFITS OF THE BILT

▸ Business ownership/investment of the curriculum and program

▸ Curriculum aligned with business/industry needs

▸ Interest and commitment in hiring our students

▸ Strong faculty & institutional connection with business and industry

BENEFITS OF THE BILT

▶ Equipment donations

▶ Commitment from business/industry for grants & projects

▶ Resources for classes and students

FROM A BILT MEMBER

I was curious as to the hours that would be needed for the Berryville classes, If they were going to be after business hours <u>I might be able to assist</u> ...

FROM A BILT MEMBER

I need a technical contact … We need to test some web programming with a representative from [company] and the contact I had, …, is no longer there. I hoped perhaps someone on BILT could help …

FROM A BILT MEMBER

I can't help with CCC, but I work in Harrison. If you need someone for your photo op and no one more photogenic than I am volunteers, <u>I could help there</u>.

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DON'T FORGET –
IT'S A RELATIONSHIP

BILT recognition

‣ News releases

‣ Thank you emails

‣ Thank you letters

‣ Certificates

Send Meeting Summary

Involve students in BILT meetings/activities

Stay in touch with individual members

Questions, comments, suggestions?

Thanks for Attending – Enjoy the Conference!

Dr. Laura Berry

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North Arkansas College

Thank you

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804 West Freeman
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