



Necessary Skills Now:
*Integrating Technical and
Employability Skills*

ATE PI Conference 2024

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**Dedicated to facilitating collaboration
between educators and employers
to improve the **employability skills** of
entry-level technicians in STEM fields.**

Today's Agenda

- **Big Picture:** Global demand for employability (human) skills
- **Part 1:** Integrating employability skills – NSN's approach
- **Part 2:** Bite-sized chunks for big impact – Tools to use now
- **Part 3:** Prioritizing local employer partners' skill needs



NSN Resource Toolbox



<https://www.cord.org/2024-ate-pi/>





EVOLVING WORKPLACE

- Nature of work changing at unprecedented speeds
- Technology advancements eliminating some jobs, creating others
- Technicians sit at the center of this disruption
- Career paths are continuously evolving
- Education must keep up













Reskilling needs

44%

of workers' core skills
are expected to change
in the next five years



Top 10 skills of 2023


1.  Analytical thinking
2.  Creative thinking
3.  Resilience, flexibility and agility
4.  Motivation and self-awareness
5.  Curiosity and lifelong learning
6.  Technological literacy
7.  Dependability and attention to detail
8.  Empathy and active listening
9.  Leadership and social influence
10.  Quality control


Type of skill

 Cognitive skills

 Self-efficacy

 Management skills

 Technology skills

 Working with others

Source

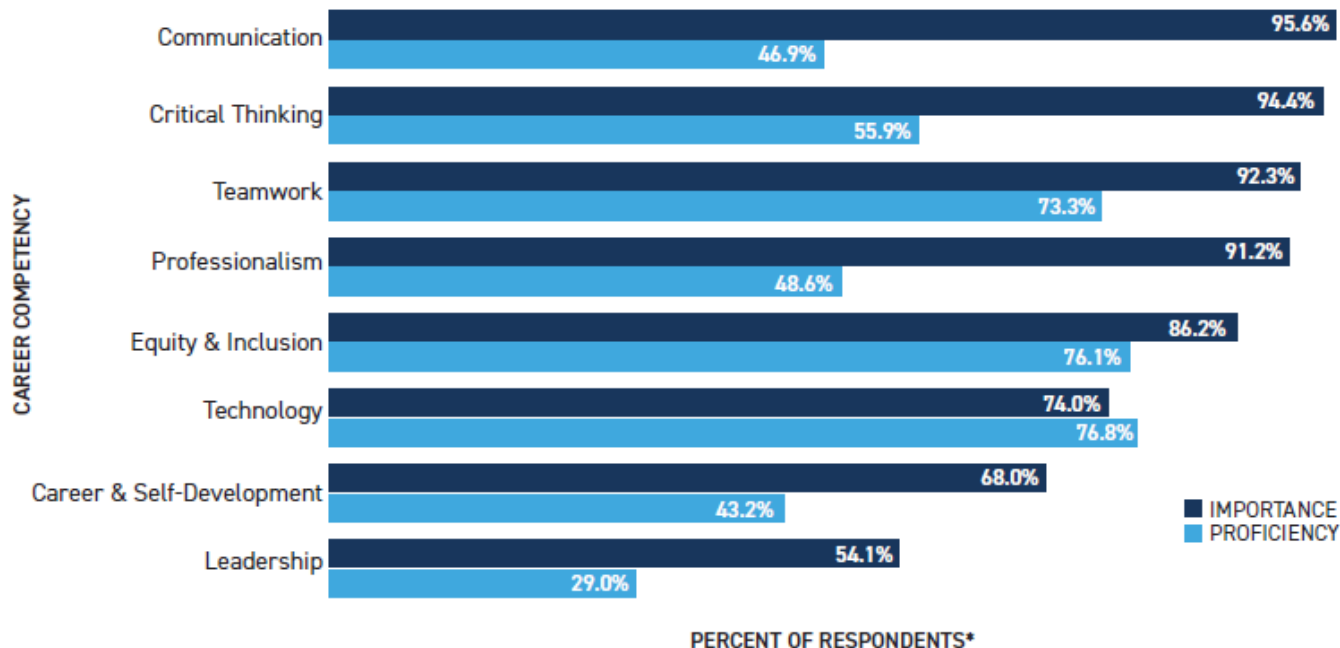
World Economic Forum, Future of Jobs Report 2023.

Note

The skills judged to be of greatest importance to workers at the time of the survey



FIGURE 46: IMPORTANCE VS. PROFICIENCY ON CAREER READINESS COMPETENCIES, BY PERCENT OF RESPONDENTS



*The percentages corresponding to "importance" represent, among all responding employers, the percentage that, on a five-point scale, indicated that the respective competency was either "very important" (4) or "extremely important" (5) for college graduates to have to enter their workforce. The percentages corresponding to "proficiency" represent, among all responding employers, the percentage that, on a five-point scale, rated recent graduates either "very" (4) or "extremely" (5) proficient in the respective competency.

GUEST ESSAY

When Your Technical Skills Are Eclipsed, Your Humanity Will Matter More Than Ever

Feb. 14, 2024

By Aneesh Raman and Maria Flynn

Mr. Raman is a work force expert at LinkedIn. Ms. Flynn is the president of Jobs for the Future.

There have been just a handful of moments over the centuries when we have experienced a huge shift in the skills our economy values most. We are entering one such moment now. Technical and data skills that have been highly sought after for decades appear to be among the most exposed to advances in artificial intelligence. But other skills, particularly the people skills that we have long undervalued as soft, will very likely remain the most durable. That is a hopeful sign that A.I. could usher in a world of work that is anchored more, not less, around human ability.

A moment like this compels us to think differently about how we are training our workers, especially the heavy premium we have placed on skills like coding and data analysis that continue to reshape the fields of higher education and worker training. The early signals of what A.I. can do should compel us to think differently about ourselves as a species. Our abilities to effectively communicate, develop empathy and think critically have allowed humans to collaborate, innovate and adapt for millennia. Those skills are ones we all possess and can improve, yet they have never been properly valued in our economy or prioritized in our education and training. That needs to change.

LinkedIn Survey:

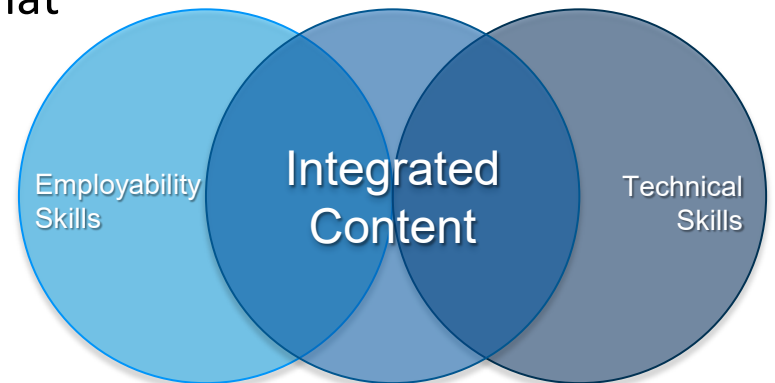
70% of execs say soft skills more important than highly technical AI skills

JFF Survey:

78% of the 10 top-employing occupations classify “uniquely human skills and tasks” as important or very important

Necessary Skills Now: The Big Picture

- Evidence from both employers and researchers reveals a **lack of employability skills** in today's technical workforce.
- Community college faculty understand the woes of employers but have **no room in their curriculum** to add content.
- Original Necessary Skills Now (NSN) project brought together **faculty** and **employers** to develop curriculum modules that **integrated both technical content AND employability skills.**



Lessons Learned

- Adopt a workplace lens; model workplace culture
- Identify priority employability skills for your discipline
- Start small – one lesson, one project
- Assess where you're already teaching employability skills and look for opportunities to enhance instruction and measure impact
- Advocate for employability skills instruction among colleagues



Necessary Skills Now Network

- Created professional development programs to support faculty
 - Taught how to replicate NSN process in any STEM discipline
-
- Conducted focus groups:
What do you need? What would you use?
 - “Bite-sized chunks!”



Why “Bite Sized”?

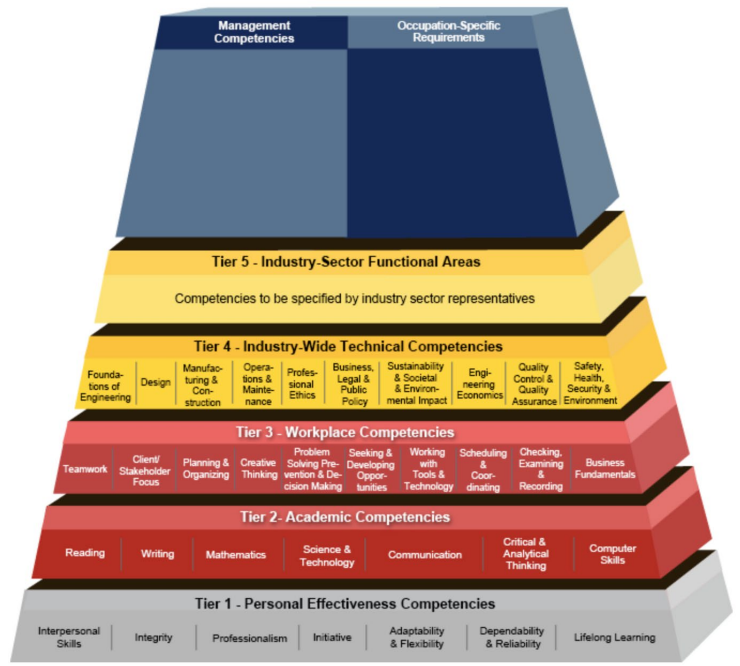
- Easier to integrate
- Develop/practice skills over time
- Expand content as you go; incorporate feedback from former students now in industry
- Incremental modifications aligned to employer needs



Inspiration from “Stacking the Deck”



USDOL Engineering Competency Model



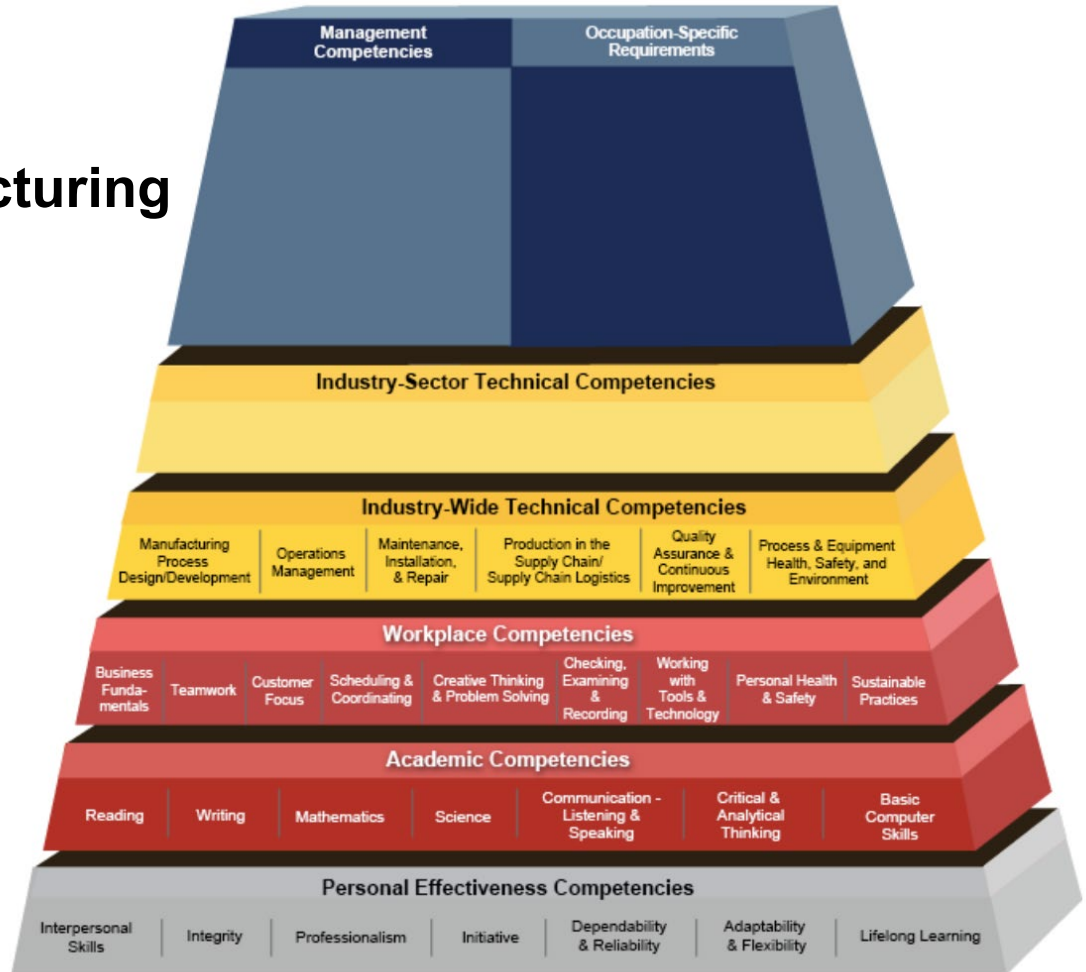
OHIO UNIVERSITY

RUSS COLLEGE OF ENGINEERING AND TECHNOLOGY
Create for Good.

A partner of the NSN Network

“Stacking the Deck”
Cards

USDOL Advanced Manufacturing Competency Model



Industry-specific Models

Prioritizing Personal and Workplace Effectiveness

A	B	C	D	E
Advanced Manufacturing Competency Model				
Employer Competency Needs Analysis Worksheet				
Rate the importance of worker competencies in your workplace.			Employer Assessment	
Competencies (from model)	Not Important	Preferred	Essential	
Tier 1: Personal Effectiveness Competencies				
1.1 Interpersonal Skills: Demonstrating the ability to work effectively with others.				
1.1.1 Interacting and working with others/Respecting diversity				
1.1.1.1	Interact respectfully and cooperatively with others who are of a different race, culture, or age, or have different abilities, gender, or sexual orientation.			
1.1.1.2	Demonstrate sensitivity, flexibility, and open-mindedness when dealing with different values, beliefs, perspectives, customs, or opinions.			
1.1.1.3	Use appropriate strategies and solutions for dealing with conflicts and differences to maintain a smooth workflow.			
1.1.1.4	Contribute to an environment that supports and accommodates a diversity of people and ideas.			
1.1.2 Demonstrating sensitivity/empathy				
1.1.2.1	Take action to help people and deliver assistance.			
1.1.2.2	Show sincere interest in others and their concerns.			
1.1.2.3	Demonstrate sensitivity to the needs and feelings of others.			
1.1.3 Demonstrating emotional intelligence				
1.1.3.1	Demonstrate flexibility for change based on the ideas and actions of others.			
1.1.3.2	Accurately interpret to the verbal and nonverbal behavior of others.			
1.1.3.3	Respond appropriately when relationships with others are strained.			
1.1.3.4	Identify others' motives and consider them when formulating responses.			

8 Competency Modules



Key Components:

1. Web-based, [student-facing content](#)
2. Instructor Reference Card for [class discussion](#)
3. Online curriculum companion
4. Employer [videos](#)

ADVANCED MANUFACTURING

Competencies
for Personal &
Career Success



ADVANCED MANUFACTURING

Competencies
for Personal &
Career Success



Competency Modules

- Created by a team of academic faculty and manufacturing industry leaders
- Based on the US Department of Labor competency model
- Specific challenges are designed to encourage exploration of competencies

∨ Interpersonal

∨ Integrity

∨ Professionalism

∨ Dependability and Reliability

∨ Teamwork

∨ Problem-Solving

∨ Personal Safety and Health

∨ Communication

ADVANCED MANUFACTURING

Competencies for Personal & Career Success



∨ Interpersonal

∨ Integrity

∨ Professionalism

∨ Dependability and Reliability

∨ Teamwork

∨ Problem-Solving

∨ Personal Safety and Health

^ Interpersonal

Open-minded and emotionally intelligent. Builds strong relationships with everyone.

Challenges

Seek out opportunities where you can...

1

Accurately interpret the verbal and nonverbal behavior of others.

2

Demonstrate cultural awareness or work to combat prejudice, bias, or stereotyping.

3

Develop a productive relationship with someone who may be difficult to work with.

4

Cooperate respectfully with others who are of a different race, culture, or age, or have different abilities, gender, or sexual orientation.

5

Demonstrate sensitivity, flexibility, and open-mindedness when dealing with different values, beliefs, perspectives, customs, or opinions.

6

Build trust and credibility with others.

7

Help others.

^ Integrity

Accountable, ethical, and fair. Consistent in thought, word, and action.

Challenges

Seek out opportunities where you can...

1

Take responsibility for finishing goals within deadlines.

2

Do the right thing – even when no one is looking.

3

Consider how your actions could impact those around you.

4

Act in a way that respects everyone's time, including your own.

5

Consider your core values and how they impact your decision making.

6

Influence others to do the right thing.

7

Demonstrate successful work behaviors.

^ Professionalism

Non-defensive and composed under pressure. Demonstrates good judgement and a positive presence in all situations.

Challenges

Seek out opportunities where you can..

- 1 Be fully present. Act wisely for the task at hand.
- 2 Receive constructive feedback with a positive attitude and growth mindset.
- 3 Seek feedback to identify opportunities for growth.
- 4 Keep your emotions in check during stressful or challenging situations; recognize the impact of your responses on others (awareness of both verbal and nonverbal cues)
- 5 Take responsibility for the quality of your work; understand its impact on your future career.
- 6 Take ownership and pride in your actions.
- 7 Positively influence a group or situation by your attitude and presence.

^ Dependability and Reliability

Consistent, timely, and prepared. Able to follow directions, attend to details, and fulfill obligations.

Challenges

Seek out opportunities where you can...

1

Develop/practice a habit of punctuality.

2

Share your personal strategies for time management and fulfillment of obligations.

3

Follow directions and ask clarifying questions as needed.

4

Explain the importance of attention to detail within the context of your career field.

5

Practice recalling details.

6

Self-assess the quality of your own work. Identify critical details that result in a successful project and quality work.

7

Identify areas for self-improvement.

8

Understand and explain the importance of policies and procedures.

^ Teamwork

Collaborative. Builds relationships and resolves conflicts to meet team objectives.

Challenges

Seek out opportunities where you can...

1

Identify your strengths and opportunities for growth within a team environment.

2

Take responsibility for leveraging your unique strengths to accomplish team goals.

3

Encourage team members to leverage their unique strengths and perspectives to accomplish team goals.

4

Actively participate in team discussions and encourage group member participation.

5

Exercise “give and take” to resolve conflicts.

6

Deliver and accept constructive feedback in a supportive, respectful manner.

^ Problem-Solving

Disciplined. Detects warning signs, uncovers causes, assesses alternatives, and uses decision-making tools. (ENG definition)

Challenges

Seek out opportunities where you can...

- 1 Identify the true nature of a problem.
- 2 Recall previously learned information that is relevant to the problem.
- 3 Locate and obtain information relevant to understanding the problem by using all available reference systems.
- 4 Take corrective action to address a problem within appropriate parameters of your role.
- 5 Evaluate the merits of potential solutions; recommend the best option.
- 6 Observe and evaluate the outcomes of implementing a solution to assess the need for alternative approaches, and identify lessons learned.
- 7 Anticipate problems by monitoring patterns and trends.

Skilled communicator. Listens and speaks clearly or uses alternative communication methods.

Challenges

Seek out opportunities where you can...

1

Prioritize what needs to be communicated and determine most appropriate form of delivery.

2

Tailor content, tone, and terminology of your writing for a specific audience and purpose.

3

Proofread a document to improve grammar, syntax, spelling, punctuation, dimensions, graphics, and use of jargon.

4

Use appropriate strategies to capture and retain important information.

5

Convey information clearly, correctly, and succinctly.

6

Apply active interpersonal communication skills using reflection, restatement, questioning, and clarification.

7

Understand the impacts of nonverbal communication (posture, appearance, expressions, gestures) on how a message is received; adapt your approach based on audience and situation/environment.

8

Understand another's perspectives and feelings through active listening and paying attention to nonverbal cues.

9

Determine when to talk and when to listen and reflect upon the proper balance.

Instructor Reference Card

Discussion Guide

[Download all 8 Cards](#)



Interpersonal Skills



Open-minded and emotionally intelligent. Builds strong relationships with everyone.

Seek opportunities where you can...

- 1 Accurately interpret the verbal and nonverbal behavior of others.
- 2 Demonstrate cultural awareness or work to combat prejudice, bias, or stereotyping.
- 3 Develop a productive relationship with someone who may be difficult to work with.
- 4 Cooperate respectfully with others who are of a different race, culture, age, gender, sexual orientation, or have different abilities.
- 5 Demonstrate sensitivity, flexibility, and open-mindedness when dealing with different values, beliefs, perspectives, customs, or opinions.
- 6 Build trust and credibility with others.
- 7 Help others.



Topics for Class Discussion

- ⊙ Developing confidence in yourself (so others can trust you)
- ⊙ Finding a solution/identifying solutions

How do you interpret the definition of Interpersonal Skills?

Emotional intelligence is the ability to understand, use, and manage your own emotions in positive ways to relieve stress, communicate effectively, empathize with others, overcome challenges, and defuse conflict. (helpguide.org)


Discuss behaviors that promote healthy teams/relationships

- Team is not too big or small
 - Members are competent in their team roles.
 - The team has a clear goal and all members are committed to accomplishing it.
 - Each member feels comfortable sharing his/her ideas.
 - Team members are willing to consider new ideas.
 - The team marks project milestones and assesses progress toward the goal.
 - Decisions are made via consensus.
- 
- Dominating every conversation
 - Withdrawing from the process altogether
 - Acting verbally or physically aggressive
 - Naysaying/blocking every idea
 - Ignoring the task at hand/performing unrelated tasks
- 

What comes to mind when you hear the word *conflict*?

Can conflict be avoided or at least minimized?

For most people, the word *conflict* is scary because of the emotional baggage it carries. Since no two people view the world the same way, disagreement is normal. One way of avoiding or resolving conflict is to listen carefully to the other speakers and calmly rephrase what they are saying, e.g. "So, I think what I hear you saying is that we should alternate days off. Is this correct?" This active listening technique can help get disagreeing parties "on the same page." Listening requires focus, remembering, and responding.



How does your attitude impact those around you?

Example: "Not my Job"


Diffusion of responsibility means that no one takes ownership for specific tasks needed to accomplish the team goals, so nothing gets done.



Here's a set of inspirational teamwork [quotes](#) with music (2:06); good as a warm-up or wrap-up for this module.

SCENARIO

Amir likes to take photos of co-workers and post them to his personal social media account along with disparaging comments about the people in the photos. He does not share the photos at work or on any company communication equipment or accounts.



Q: Can Amir be fired for these actions?

Instructor Reference Card

Discussion Guide



Integrity



*Accountable, ethical, and fair.
Consistent in thought, word, and action.*

Seek opportunities where you can...

- 1 Take responsibility for finishing goals within deadlines.
- 2 Do the right thing – even when no one is looking.
- 3 Consider how your actions could impact those around you.
- 4 Act in a way that respects everyone’s time, including your own.
- 5 Consider your core values and how they impact your decision making.
- 6 Influence others to do the right thing.
- 7 Demonstrate successful work behaviors.

Topics for Class Discussion

- ⦿ What is ethics?
- ⦿ What is the value of doing the hard thing (vs the easy thing)?
- ⦿ Identify your core values.
- ⦿ How do you define acceptable/successful work behaviors? Quantify - “Time is money”.
- ⦿ What’s the impact of your actions on the cost of the project, product, etc.?
- ⦿ What’s the opportunity cost?
- ⦿ Developing confidence in yourself (so others can trust you)
- ⦿ Finding a solution/identifying solutions

“What is a Code of Ethics?”

- Values: Beliefs in which you are emotionally invested (either for or against something)
- Ethics: Principles of conduct (a moral code adhered to by a professional)
- Integrity: Behaving according to moral principles or professional rules in which you believe, leading others to respect and trust you

“Honesty and Integrity”

- Difficult to teach, requires a lifetime to learn.
- We eventually will agree with Ben Franklin: “Honesty is the best policy.”
- The alternative, “dishonesty,” generally has adverse consequences, from which you may never fully recover.

Discuss deception:

- Misleading rather than explicitly lying
- Allowing others to come to the wrong conclusions, often motivated by benefit to yourself or the company.
 - Is this the same as lying?
- What are the consequences of deceiving or lying to others in our personal lives? In business?



SCENARIO

Claire is responsible for writing non-conformance reports to document parts that she produces that are not within specifications, therefore not usable. She discovered that she could throw the parts away in the scrap bin without anyone knowing instead of including them in the report. This improved Claire’s performance metrics. Claire’s supervisor reviews the reports and concludes that she is doing good work. What might be some consequences of Claire’s decision to hide the defective parts?

RESOURCE  [Business Etiquette Basics](#)

Instructor Reference Card

Discussion Guide

Professionalism



Non-defensive and composed under pressure. Demonstrates good judgement and a positive presence in all situations.

Seek opportunities where you can...

- 1 Be fully present. Act wisely for the task at hand.
- 2 Receive constructive feedback with a positive attitude and growth mindset.
- 3 Seek feedback to identify opportunities for growth.
- 4 Keep your emotions in check during stressful or challenging situations; recognize the impact of your responses on others (awareness of both verbal and nonverbal cues)
- 5 Take responsibility for the quality of your work; understand its impact on your future career.
- 6 Take ownership and pride in your actions.
- 7 Positively influence a group or situation by your attitude and presence.

Topics for Class Discussion

- Personal health/wellness and its impact on your work environment
- How to project a professional image; demonstrate readiness for future opportunities

“Describe professional image”

Your **outward appearance** is the first evidence people see of you and your professionalism.

- Attire and personal hygiene
 - Shower and brush your teeth
- How has society evolved regarding “professional image” (suits and ties, dresses for women, tattoos, hair color, piercings) and does this apply across the board?



“Is there or should there be a different standard?”

Lawyer/Surgeon vs Plumber/Mechanic

“What does feedback mean to you?”

- In school, it can be as simple as a grade or comment.
- At work, it can be a formal performance evaluation.
- It can be to address an “issue.”

How to receive constructive feedback with a positive attitude

[Taking Constructive Feedback Like a Champ](#)

“What does it mean to take responsibility for your actions?”

- Relates to Integrity
- “Not my job”

“What does it mean to take pride in your work?”

- Do you do just enough to get by or do you go above and beyond?



[How 'Quiet Quitting' Became The Next Phase Of The Great Resignation](#)

SCENARIO

Marcus is allowed to take 15 minutes break every 2 hours at his job. Marcus began extending his breaks to 25 minutes. His employer issued a warning to Marcus that he can only take up to 15 minutes of personal break time. Marcus feels that 15 minutes is not enough time for a break and continues to extend his time.

Q - Should Marcus be allowed to take extra time during his breaks if he feels they are necessary?



Instructor Reference Card

Discussion Guide

Dependability and Reliability



Consistent, timely, and prepared. Able to follow directions, attend to details, and fulfill obligations.

Seek opportunities where you can...

- 1 Develop/practice a habit of punctuality.
- 2 Share your personal strategies for time management and fulfillment of obligations.
- 3 Follow directions and ask clarifying questions as needed.
- 4 Explain the importance of attention to detail within the context of your career field.
- 5 Practice recalling details.
- 6 Self-assess the quality of your own work. Identify critical details that result in a successful project and quality work.
- 7 Identify areas for self-improvement.
- 8 Understand and explain the importance of policies and procedures.

Topics for Class Discussion

- Identify time management strategies for balancing personal and professional responsibilities and responsibilities to others.
- Discuss the importance of attention to detail at various levels of a project/different positions.
- Arrive on time and prepared (regardless of modality or communication format).
- Understand expectations (seek them out, ask for them).

“Why do details matter?”

You order steak but you get chicken...*oh well...it's still meat.*

How to do things and **when** to do things are critical in school and at work.

Understand expectations!

“Why is being on time and prepared so important?”

- Is there a difference in being on time to class vs being on time to work?
- Are you still “on time” if you must go back to your car for your calculator or safety glasses?
- What did you miss during that time you went out to your car?



Time is money...

You are wasting money if you miss class time. Your company loses money if you are not where you are supposed to be when you are supposed to be there.

“How does the way you manage time impact you and those around you?”

We are all busy...learn how to

- Prioritize tasks
- Leave time for planning
- Schedule time for interruptions
- Anticipate problems
- Create a “to do” list
- Combine tasks

Find a method that works for you and stick with it.



[Inside the mind of a master procrastinator](#)



[Don't Eat the Marshmallow!](#)

SCENARIO

Debbie is an apprentice at her company. She is paid by her employer for her time at her job as well as the time she spends in class 2 days per week. Debbie did not attend her 2 days of school last week because she did not feel well. However, she was present for her scheduled hours at work. She did not report to her employer that she was absent from class last week.



Q: Should Debbie report to her employer that she was not present for class?

Instructor Reference Card

Discussion Guide

Teamwork



Collaborative. Builds relationships and resolves conflicts to meet team objectives.

Seek opportunities where you can...

- 1 Identify your strengths and opportunities for growth within a team environment.
- 2 Take responsibility for leveraging your unique strengths to accomplish team goals.
- 3 Encourage team members to leverage their unique strengths and perspectives to accomplish team goals.
- 4 Actively participate in team discussions and encourage group member participation.
- 5 Exercise “give and take” to resolve conflicts.
- 6 Deliver and accept constructive feedback in a supportive, respectful manner.

Topics for Class Discussion

- Receiving feedback
- Effective communication strategies when working in a team (verbal and non-verbal)
- Team roles
- Understanding the value of varying perspectives

“What comes to mind when I say...Team Project?”

Discuss good and bad experiences in working on teams at school or in a workplace.

You will always be working with a team, even if you own your own company and are the only employee (suppliers and customers).

What makes an effective team?

- Consists of competent, committed members
- Goes through several stages of development
- Works collaboratively in an atmosphere of respect and trust
- Has a clear goal to accomplish
- Understands how success (achievement of their goal) will be measured
- Benefits both the team members and their organization



Why diversity is critical to successful teams

Silos are an outdated way of solving problems.


Diversity of team members’ perspectives and experiences is an asset.

“Why do teams need ground rules?”

- Ground rules are agreements among team members about how they will conduct themselves within the group.
- Rules typically address how members will:
 - Behave toward one another
 - Make decisions
 - Solve problems
 - Prevent and manage conflict

RESOURCE

NC NET: [Interpersonal Skills and Teamwork](#)

 [How to Become a Better Collaborator](#)

SCENARIO

Arthur has been assigned as group project leader. He feels that his team mates’ ideas are weak so he makes most decisions on what the group will do and how they will do it. Other team members are growing frustrated with feeling as if they are not valued. How should the team members address this issue? What can Arthur do differently?



Instructor Reference Card

Discussion Guide



Problem-Solving



Disciplined. Detects warning signs, uncovers causes, assesses alternatives, and uses decision-making tools.

Seek opportunities where you can...

- 1 Identify the true nature of a problem.
- 2 Recall previously learned information that is relevant to the problem.
- 3 Locate and obtain information relevant to understanding the problem by using all available reference systems.
- 4 Take corrective action to address a problem within appropriate parameters of your role.
- 5 Evaluate the merits of potential solutions; recommend the best option.
- 6 Observe and evaluate the outcomes of implementing a solution to assess the need for alternative approaches, and identify lessons learned.
- 7 Anticipate problems by monitoring patterns and trends.

Topics for Class Discussion

- ⦿ How many decisions do you make in a day?
- ⦿ How do you make a decision?
- ⦿ What is a good decision?
- ⦿ Describe how you recently made a good decision. What was the process? (Strategies include Random, Gut Feel, Logical, and Process of Elimination.)

Problem-Solving Strategies

- Draw a diagram, look for patterns
- Make a list
- Trial and error
- Divide and conquer
- Work the problem backwards

“Every problem is an opportunity in disguise.”
John Adams

Problem-Solving Methodologies/Tools

- Define the problem by writing a problem statement
- Understand the current state
- Find root cause
 - 5 Whys / Fishbone (Ishikawa Diagram)
 - 6 M’s: Manpower, Method, Machine, Material, Measurement and Mother Nature
- Choose a solution
- Implement solution (one at a time)
- “Was the problem resolved?”
 - If yes: Communicate findings and train others as needed.
 - If no: Go back to the root cause tools.



What is your risk tolerance in decision making?

This will impact your decision!

“Proactive vs. Reactive”

- What does it mean to be proactive vs. reactive?
 - Proactive:* Doing the upfront work to determine if a process is reliable (This takes time, effort, and resources.)
 - Reactive:* Handling problems as they arise (This is the approach a lot of organizations take.)
- Most of the information gathered in a reactive state is lost. The problem will continue to arise.



[What is Critical Thinking?](#)

SCENARIO

It’s the end of the month and a “hot” part is being delayed at Machine 5. The operator calls her supervisor, who calls his manager. They call in support from quality, logistics, engineering, and supply chain. They all determine the “issue” and what can be done to fix the problem. The part is corrected and shipped. The next day, all those involved in getting the part shipped are praised at the morning meeting and kudos were shared via email. A week later, Machine 5 is making bad parts again. *What do you think will happen? What do you think should happen?*



Instructor Reference Card

Discussion Guide



Communication



Skilled communicator. Listens and speaks clearly or uses alternative communication methods.

Seek opportunities where you can...

- 1 Prioritize what needs to be communicated and determine most appropriate form of delivery.
- 2 Tailor content, tone, and terminology of your writing for a specific audience and purpose.
- 3 Proofread a document to improve grammar, syntax, spelling, punctuation, dimensions, graphics, and use of jargon.
- 4 Use appropriate strategies to capture and retain important information.
- 5 Convey information clearly, correctly, and succinctly.
- 6 Apply active interpersonal communication skills using reflection, restatement, questioning, and clarification.
- 7 Understand the impacts of nonverbal communication (posture, appearance, expressions, gestures) on how a message is received; adapt your approach based on audience and situation/environment.
- 8 Understand another's perspectives and feelings through active listening and paying attention to nonverbal cues.
- 9 Determine when to talk and when to listen and reflect upon the proper balance.

Topics for Class Discussion

- Identify:
 - The best/most appropriate delivery mode to communicate an important piece of information.
 - Effective personal retention strategies and appropriate notetaking methods
- How to interpret/clarify complex instructions
- feelings communicated by others (both verbally and nonverbally).

Common Types of Communications

Written: Reports, Emails, Forms

Oral: Phone Calls, Face-to-Face Discussions, Virtual Meetings, Presentations

Prepare!

- Know your audience.
- Know your subject matter.
- Use the best delivery method.

Be Aware of Body Language

Communicators need to be aware of the signals they are sending.

- Posture
- Gestures
- Eye contact
- Dress

Discuss:

1. What do slumped shoulders and lack of eye contact convey?
2. What does it convey when **you** look at your phone and not the person talking?

Take Notes!

- Always have your note-taking device with you
- If you miss something, ask!
- Don't try and write everything someone is saying; get the key points.
- Review your notes before asking.

LINKS

[Body Language](#)

[The Power of Nonverbal Communication](#)



SCENARIO

Emma is shadowing her trainer during her first week on the job. She feels overwhelmed by the amount of new information being given to her and feels as if she may not be correctly understanding certain directions. What strategies should Emma consider using to ensure she is benefitting from her training?

Online Curriculum Companion

Create free account

learn.cord.org/login/index.php

Connecting Industry... NC-NET Moodle Index | High Impact...

English (United States) (en_us_wp)

Your session has timed out. Please log in again.

hcother

.....

Log in

Lost password?

Is this your first time here?

For full access to this site, you first need to create an account.

Create new account

Cookies must be enabled in your browser
Powered by Moodle Workplace

Review/extract/share content

Moodle

Hope Cotner

Developing Your Capital

- Participants
- Badges
- Competencies
- Grades
- Dashboard
- Site home
- Calendar
- Private files
- Content bank
- My courses

The purpose of this curriculum companion is to help students:

- **Develop** an **awareness** of workplace competencies
- **Understand** the **value** of workplace competencies
- **Recognize** the **importance** of how these skills shape an individual's reputation (personal brand)
- **Develop strategies** to build a personal brand
- **Understand** one's economic **value** in the workplace

Developed Using Industry Feedback

Technical skills are at the core of career and technical education. The ability to adapt curriculum and training to respond to the evolving needs of modern industry is necessary to maintain the relevancy of content and learning outcomes.

When employers are asked to identify the most essential skills necessary for success in today's workplace, they increasingly express the need for strong employability skills.

The Necessary Skills Now (NSN) Network, a National Science Foundation project, convened a group of industry leaders to give

Same Content in Canvas Commons – Search term “Necessary Skills Now”

The screenshot shows the Canvas Dashboard interface. The browser address bar displays 'canvas.instructure.com'. The dashboard title is 'Dashboard' and it shows 'Published Courses (2)'. A red arrow points from the title of the slide above to the 'Necessary Skills Now' course card in the 'Published Courses' section. The course card features a blue header with the 'Necessary Skills Now NETWORK' logo and the text 'Necessary Skills Now' and 'NSN Network' below it.

The screenshot shows the Canvas Commons interface for the 'NSN Network > Modules' section. The left sidebar contains navigation options: Home, Announcements, Assignments, Grades, People, Pages, Quizzes, Modules, BigBlueButton, Rubrics, Discussions, Syllabus, Files, Outcomes, Collaborations, and Settings. The main content area shows a list of items under the 'Necessary Skills Now' module. The items are:

- Competencies for Personal & Career Success
- Kick-off Slide Deck.pptx
- Kick-off Slide Deck.pdf
- Interpersonal
- Integrity
- Professionalism
- Dependability and Reliability
- Teamwork
- Problem Solving

Each item has a green checkmark icon on the right side, indicating it is published or available.

Developing Your Capital

Workplace competencies that
complement technical skills





Defining Your “Brand”

Does your reputation align with your personal brand?
How do you manage your reputation?

Employability Skills

- Non-technical skills necessary for success in the workplace
- Often referred to as “soft” skills



Employability Skills

89% of recruiters say that when a hire doesn't work out, it usually comes down to a lack of soft skills.

<https://www.linkedin.com/business/talent/blog/talent-strategy/global-recruiting-trends>



Hear employers from the advanced manufacturing sector talk about the importance of employability skills for entry-level technicians.

Use the buttons below to sort by topic.

- All
- Integrity
- Teamwork
- Initiative
- Advice for Students
- Problem Solving
- Interpersonal
- Dependability and Reliability



Teamwork

Nikita Murphy, Project Manager, Siemens

Summary: How to work with/trust a team.



Integrity Initiative

Nikita Murphy, Project Manager, Siemens

Summary: Soft skills such as integrity and initiative will take you the furthest.



Integrity

Nikita Murphy, Project Manager, Siemens

Summary: Treat each other as internal customers; build department to department relationships.



Advice for Students



Advice for Students



Integrity

Employer Videos





Employability Skills Lesson Reflection and Action Planning

EMPLOYABILITY SKILLS	<i>Course</i>	<i>How I teach it</i>	<i>NSN resource I could add</i>
Teamwork			
Problem Solving			
Verbal Communication			
Written Communication			
Dependability/ Reliability			
Professionalism			
Integrity			
Interpersonal			



Activity:
Reflect and Plan

Employer Engagement

Prioritizing What's Important

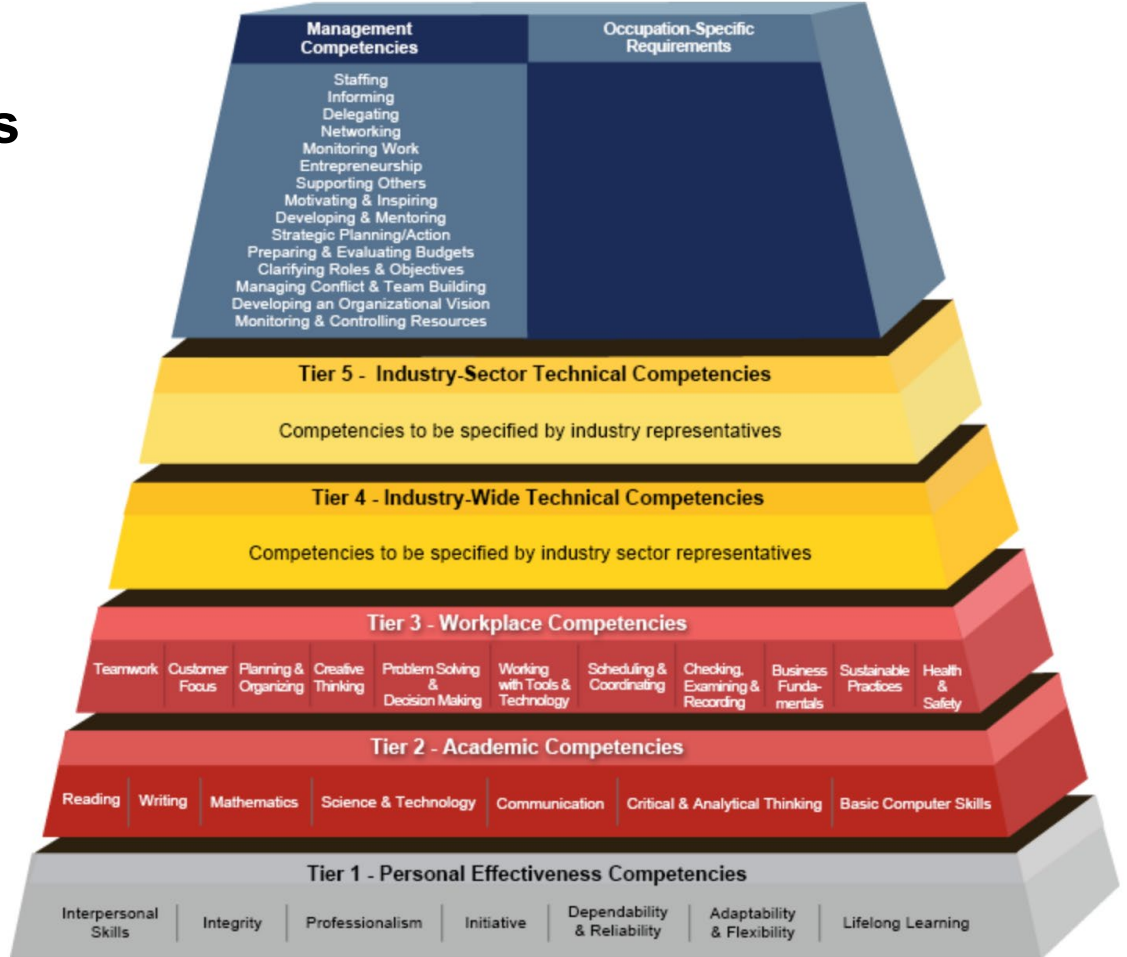


Getting Started: Prioritizing Skill Needs of Employers

1. What employability/soft skills are most critical to success at your company?
2. Which factor into hiring decisions?
3. Which employability skills do you find most deficient among entry-level employees?



USDOL Building Blocks Competency Model





Advanced Manufacturing

[◀ Back to Model Pyramid](#)

General Information









- [The "Building Blocks"](#)
- [Frequently Asked Questions](#)
- [Competency Model Development and Use \(PDF\)](#)

Advanced Manufacturing Model Download

Click on a link below to download the industry model in the formats provided -

- [PDF document](#)
- [MS Word document](#)
- [Excel spreadsheet](#)

You can also download the model in the following worksheet formats -

-   Credential Competencies Worksheet
-   Curriculum Analysis Worksheet
-   Employer Analysis Worksheet
-   Gap Analysis Worksheet

Tools for Employer Survey

	A	B	C	D	E	
1	Advanced Manufacturing Competency Model					
2	Employer Competency Needs Analysis Worksheet					
3	Rate the importance of worker competencies in your workplace.			Employer Assessment		
4				Not Important	Preferred	Essential
5	Competencies (from model)					
6						
7						
8	Tier 1: Personal Effectiveness Competencies					
9	1.1 Interpersonal Skills: Demonstrating the ability to work effectively with others.					
10	1.1.1 Interacting and working with others/Respecting diversity					
11	1.1.1.1	Interact respectfully and cooperatively with others who are of a different race, culture, or age, or have different abilities, gender, or sexual orientation.				
12	1.1.1.2	Demonstrate sensitivity, flexibility, and open-mindedness when dealing with different values, beliefs, perspectives, customs, or opinions.				
13	1.1.1.3	Use appropriate strategies and solutions for dealing with conflicts and differences to maintain a smooth workflow.				
14	1.1.1.4	Contribute to an environment that supports and accommodates a diversity of people and ideas.				
15	1.1.2 Demonstrating sensitivity/empathy					
16	1.1.2.1	Take action to help people and deliver assistance.				
17	1.1.2.2	Show sincere interest in others and their concerns.				
18	1.1.2.3	Demonstrate sensitivity to the needs and feelings of others.				
19	1.1.3 Demonstrating emotional intelligence					
20	1.1.3.1	Demonstrate flexibility for change based on the ideas and actions of others.				
21	1.1.3.2	Accurately interpret to the verbal and nonverbal behavior of others.				
22	1.1.3.3	Respond appropriately when relationships with others are strained.				
23	1.1.3.4	Identify others' motives and consider them when formulating responses.				

Employer Survey Results

	Respondent 1	Respondent 2	Respondent 3	Respondent 4	Respondent 5
Interact respectfully and cooperatively with others who are of a different race, culture, or age, or have different abilities.	Essential	Essential	Essential	Essential	Essential
Demonstrate sensitivity, flexibility, and open-mindedness when dealing with different values, beliefs, and attitudes.	Essential	Essential	Preferred	Preferred	Essential
Use appropriate strategies and solutions for dealing with conflicts and differences to maintain a smooth working relationship.	Essential	Essential	Essential	Preferred	Preferred
Contribute to an environment that supports and accommodates a diversity of people and ideas.	Essential	Essential	Essential	Essential	Preferred
Take action to help people and deliver assistance.	Essential	Essential	Preferred	Essential	Essential
Show sincere interest in others and their concerns.	Essential	Essential	Preferred	Preferred	Essential
Demonstrate sensitivity to the needs and feelings of others.	Preferred	Essential	Not Important	Preferred	Essential
Demonstrate flexibility for change based on the ideas and actions of others.	Essential	Essential	Preferred	Preferred	Preferred
Accurately interpret to the verbal and nonverbal behavior of others.	Essential	Essential	Preferred	Preferred	Preferred
Respond appropriately when relationships with others are strained.	Essential	Essential	Preferred	Essential	Essential
Identify others' motives and consider them when formulating responses.	Preferred	Essential	Not Important	Preferred	Preferred
Maintain open lines of communication with others.	Preferred	Essential	Preferred	Essential	Essential
Establish a high degree of trust and credibility with others.	Essential	Essential	Preferred	Essential	Essential
Encourage others to share problems and successes.	Preferred	Essential	Not Important	Preferred	Preferred
Choose an ethical course of action and do the right thing, even in the face of opposition.	Essential	Essential	Essential	Essential	Essential
Encourage others to behave ethically.	Essential	Essential	Preferred	Preferred	Essential
Behave ethically beyond what the law requires.	Essential	Essential	Not Important	Preferred	Essential
Use company time and property responsibly.	Essential	Essential	Essential	Essential	Preferred
Perform work-related duties according to laws, regulations, contract provisions, and company policies.	Essential	Essential	Essential	Essential	Essential
Comply with ethical standards for your field.	Essential	Essential	Essential	Preferred	Essential
Accept responsibility for one's decisions and actions.	Essential	Essential	Essential	Essential	Preferred
Treat others with honesty, fairness, and respect.	Essential	Essential	Essential	Essential	Essential
Make decisions that are objective and reflect the just treatment of others.	Essential	Essential	Preferred	Preferred	Essential
Take responsibility for accomplishing work goals within accepted timeframes.	Essential	Essential	Essential	Preferred	Preferred



Duplicate this form to use as your own.

Duplicate it

Form Menu



Advanced Manufacturing Competencies

The survey will take approximately 15 minutes to complete. For each item shown below, please rate the importance of the worker competency in your workplace. You may add additional comments at the end of the form.

1. Your name (optional)

Enter your answer

2. 1.1.1.1 Interact respectfully and cooperatively with others who are of a different race, culture, or age, or have different abilities, gender, or sexual orientation.

Not Important

Preferred

Essential

Form Link:



Scenario Development Template

A starting point – customize as needed

Share with employers how scenarios will be used to enhance student skills.

Employers provide:

- Scenario
- Company background
- Desired outcomes





Engaging Employers in Scenario Development

Use this template to gather workplace scenarios from industry partners to support employability skills instruction.

Company Information

1. Company Name:
2. Your Name and Position:
3. May we include your company name and logo when sharing your scenario in _____ courses at _____ Community College?
 - Yes – company name and logo can be used
 - Yes – company name can be shared
 - No – neither company name nor logo can be shared

Employability Skills to be Emphasized

Please identify the employability skills that are emphasized in the scenario you are submitting. Check all skills that apply. To add skills to the list, please use the “Other skills” box below.

- Teamwork** (working with others to complete a collaborative, goal-driven effort)
- Problem-Solving** (using critical-thinking to handle and resolve unforeseen circumstances)
- Verbal Communications** (listen, speak, and present to peers, superiors, and customers)
- Written Communications** (read and professionally express oneself in business reports, correspondence, etc.)
- Dependability/Work Ethic** (deliver work on time reliably, confidentially, and ethically, even under duress)
- Planning and Organizing** (efficiently tackle tasks in light of company goals and resources, legal restrictions, schedules, quality, safety, etc.)
- Other skills emphasized:**

Hosting an Industry/Student Event

NSN Hosted “Industry Insights” - 1 hour Zoom webinar in the evening

- 4 industry panelists shared perspectives on importance of employability/ professional skills by responding to questions from 4 students + moderator
- Ten classes (from NSN cohort) had the opportunity to pose questions in advance and also in Q&A / chat.
- Student audience members joined as a class or individually
- Recording available on NSN website; easily adapted for your region



Network Activities

The NSN Network fosters collaboration among educators and employers to improve the employability skills of technicians in STEM-related occupations. The Network's Community of Practice facilitates interdisciplinary conversations enabling members to share promising practices to advance employability skills instruction across the STEM disciplines.



RECENT EVENTS:

Industry Insights: A Conversation with Manufacturing Employers

Webinar: April 24, 2024, 6:00–7:00 pm

The Necessary Skills Now Network hosted an engaging discussion between employers and students preparing to work in the manufacturing sector. A panel of industry representatives and community college students talked about the importance of employability and professional skills in today's workplace.

Industry Panelists included:

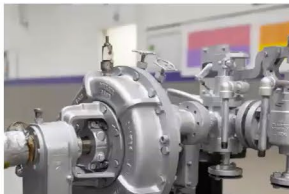
- Andrew Strickland, Framatome
- Jake Speaks, Dynamic Machining X Manufacturing (DM²)
- Nikki Murphy, Siemens
- Terry Swade, Salem 1, Inc.

[Click here to watch the video.](#)

Industry Insights



NSN Industry Insights: A Conversation with M...



That's the repair refurbishment portion, or we manufacture new components to, build new engines.

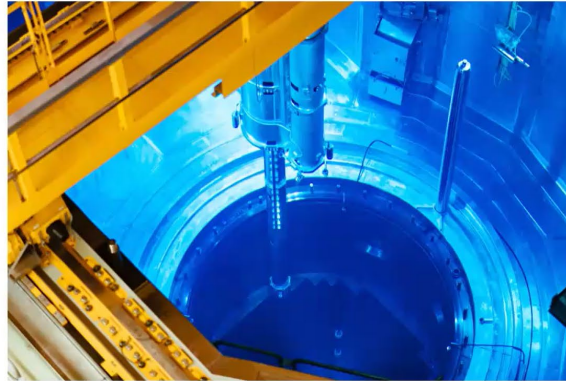
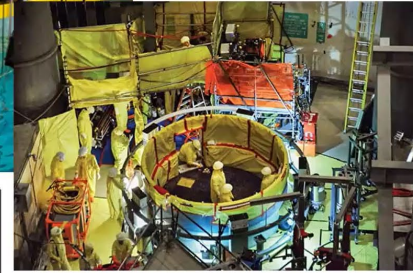
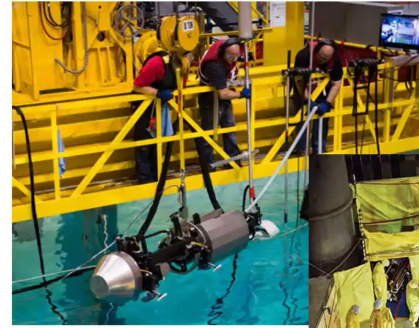
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[Audio Transcript](#) [Chat Messages](#)

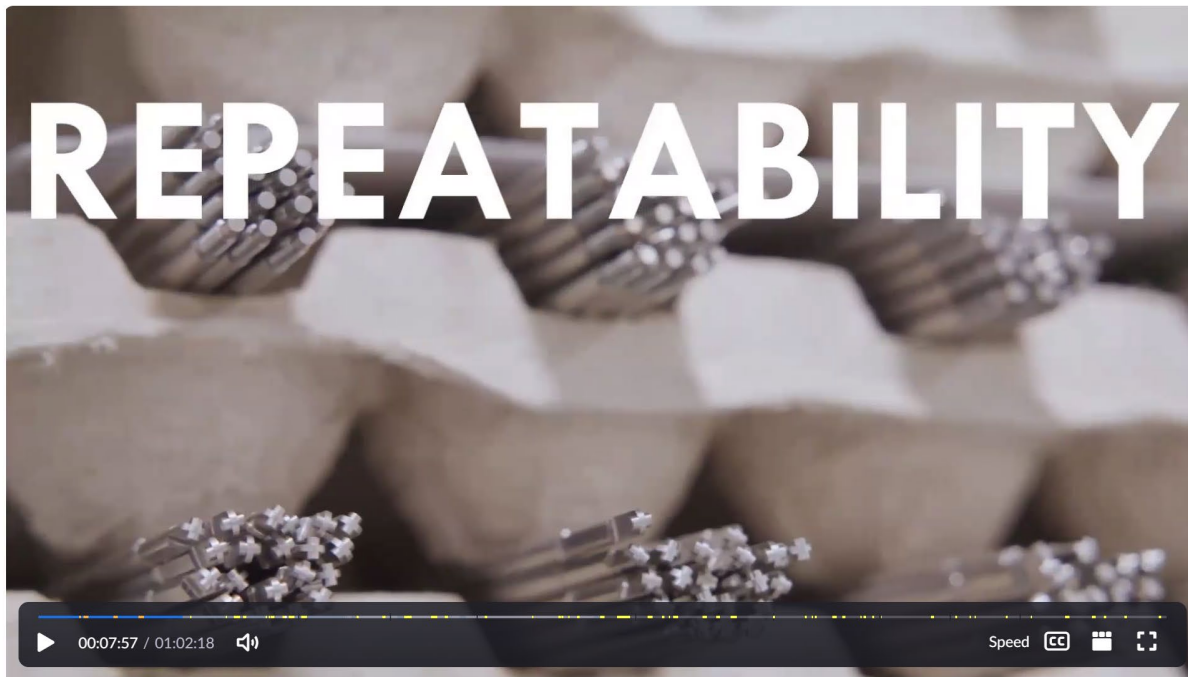
🔍 Search transcript

we definitely would like to know who's with us in the audience. So please feel free to introduce yourself in the chat. You can either type in your name or your class. You know we've got some some entire classes that are going to be joining us this evening. Just include your name, your college and your State.



Andrew Strickland
Supervisor
Resource Development

framatome

[Audio Transcript](#)[Chat Messages](#)

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a project of the National Science Foundation's advanced technological

Wrap-Up

- Key Takeaways
- Questions



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Have a great conference!