

Maintaining Business Relevance

Contextualizing Curriculum
Development

Developing the Workforce: An Essential Partnership

Business

**Industry &
Labor**

Educators



Building and Using Skill Profiles

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1. **Background Research**
 2. **Industry Focus Groups**
 3. **Draft Skill Profiles**
 4. **Verify Draft or Revise**
 5. **New Curriculum/Revisions**

A Little More Detail

- Industry and Labor (I&L) task-force selected the occupation clusters for research
 - Given the choice to select two occupation clusters for curriculum development they chose
 - Energy Program/project management
 - Commercial Building Analysis
 - Why did they choose these two?

Core Business Processes

- Two fundamental processes energy efficiency firms must be proficient at:
 - Business development –
 - Finding and assessing energy efficiency opportunities
 - Developing proposals for clients
 - Managing service delivery for accepted proposals

In Short

- Finding potential, profitable opportunities
- Creating a proposal (making a promise)
- Following through on that promise

- Analysis, proposal, delivery

Occupation Clusters

- Commercial Building Analysis (CBA)
 - Finding potential opportunities
- Program/project management (PPM)
 - Delivering results promised in proposal
- Both occupations participate in proposal development

Business Process Constituents

- Critical Work Functions (CWA)
 - Steps in the business process
- Key Activities (KA)
 - Foundation for the process steps
 - Industry thinks in these terms – not teachable
- Skills/core competencies
 - Required to implement the CWF
 - Teachable

Business Development

Process/Commercial Building Analysis

- Critical Work Functions (CWA) for Commercial Building Analysis are the steps in the business development process
- Key Activities are the foundation for the process steps – business thinks in these terms
- Skills/core competencies are required to implement the CWF and are teachable

Service Delivery Process

Program/Project Management (PPM)

- Critical Work Functions (CWA) for Program/project management are the steps in the service delivery process
- Key Activities are the foundation for the PPM process steps – business thinks in these terms
- Skills/core competencies are required to implement the PPM CWF and are teachable

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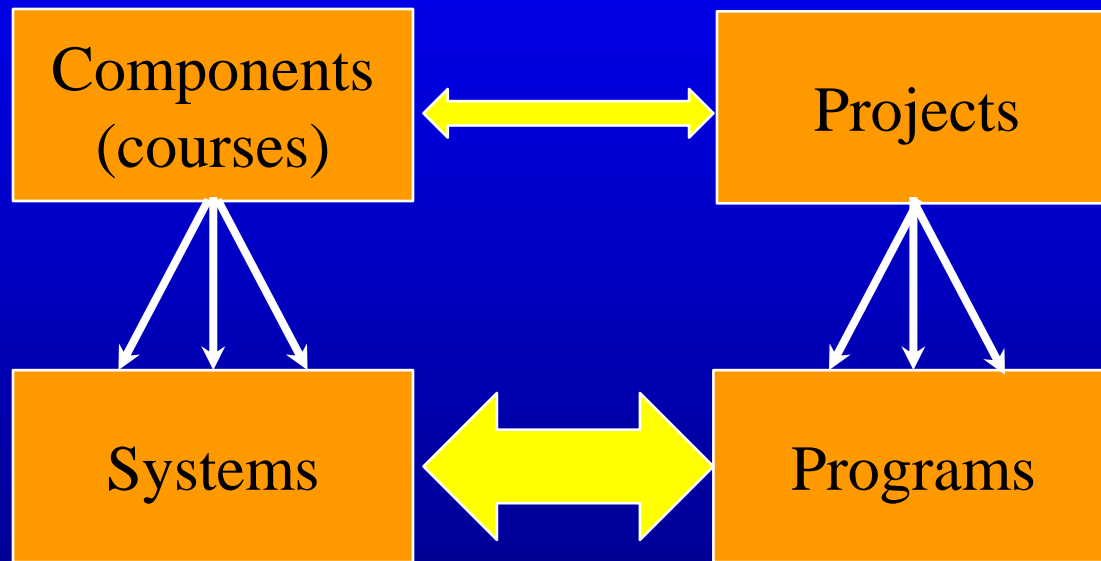
Relevant Curriculum

- Teaches core competency and skills
- Retains industry and labor process context
- Important for educators to retain the business process context when developing courses
- Benefits ??

The Program/Project Opportunity

- In industry a program is a collection of interacting projects managed together
- Example – building analysis, proposal development, equipment selection and installation, verification, monitoring system deployment
- Example – community energy projects
 - Solar PV generation, distribution, consumption

Programs and Systems



Systems are Interacting Components

- Energy Systems
 - Generation (solar PV, biomass, wind)
 - Distribution (microgrid, DC subgrids)
 - Consumption (energy audit, HVAC design)
- We often use projects to teach students system components
- We teach students introductory project management and basic team skills

Program Opportunity

- What if we taught students enough program management that they could work collaboratively to design systems?
- Many of the colleges have areas of expertise that are components of the energy system
- Couldn't our students start working together to create integrated systems designs?
- Benefits ??

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Creating a Career Lattice: Terms

- Educational Pathway: Collection of courses at an institution
- Career Pathway: Education pathway evaluated for industry specified skills
- Educational Lattice: Education pathways from more than one institution
- Career Lattice: Educational lattice evaluated for industry specified skills

Steps in Career Lattice Process

- Identify pathways and courses at your institution
- Find related pathways to form potential education lattice
- Develop or modify new courses as needed
- Evaluate existing or developed courses using industry skills

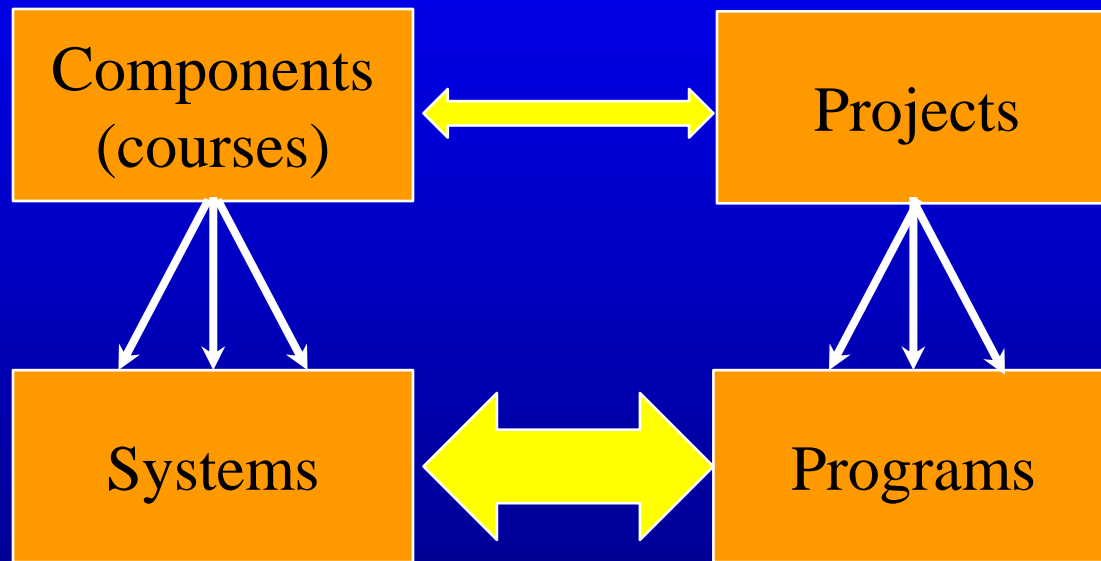
A Little More Detail

- A collaborative effort – YOU do not need to create the entire educational or career lattice
- We have developed simple, easy to use tools and aids to assist you with assessing courses for industry skills

Choose a Work Group: Sign Up!

- Choose where you would like to work today
 - Evaluating existing course (Tom Barr)
 - Developing new course (Mel Oyler)
 - Commercial building analysis
 - Program/Project management
 - Other energy related area
 - Strategy (Alison Pugh and Randy Sibley)

Programs and Systems



One More Time

- Relevant Curriculum
 - Teaches core competency and skills
 - Retains industry and labor process context
- Program Opportunity
 - What if we taught students enough program management that they could work collaboratively to design systems by integrating components?

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