LOGISTICS ENGINEERING TECHNOLOGY

Compression Planning & Job Skills Analysis

OVERVIEW

Columbus State ATE projects have created, piloted, and launched an effective new model for an "accelerated DACUM" known as a Job Skills Analysis with Compression Planning. This model was piloted in the ATE project entitled Building an Academic Pathway for Industrial Engineering Operations Technicians (1400452). It was then successfully replicated for the ATE project Ohio Region Cybersecurity Technician Training Pipeline (1501194) and other programs.

A trained facilitator led a small group of industry representatives who generated, categorized, and rank ordered the roles, responsibilities, and major tasks of logistics engineering technicians. The group further identified the general skills, soft skills, and specialized equipment used by these technicians. The Compression Planning method proved to be a highly-effective and efficient process in extracting necessary job skills data and information from key industry partners in hours rather than days. Faculty used this information to craft a job description of a logistics engineering technician which became the basis for curriculum development. Through the use of Compression Planning, the session can take less than 25% of the time required for a full DACUM—which requires industry representatives to participate for two full days. Compression Planning provides efficiency and flexibility for the team. The resulting process typically can be accomplished in half of a day.

On February 6, 2015, Columbus State Community College held a Job Skills Analysis using Compression Planning on campus with the project's industry leadership team. The attendees included the following individuals

- John DiCecco, 31 Gifts
- Rob Wright, L Brands
- Michael Bradley, COTA
- Thomas Wessel, formerly of Pacer Global Logistics
- Frank Rumiski, ODW Logistics
- Jim Dykstra, Boar's Head
- JJ Schultz, CSCC
- Wesley Blyth, CSCC
- Jeff Woodson, CSCC
- Peter Carswell, CSCC
- Neil Herbkersman, CSCC
- Shane Kirby, CSCC
- JP Vandermark, CSCC
- Scott Wegeng, CSCC
- Lana Rucks, Rucks Group

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COMPRESSION PLANNING RESULTS

CORE KNOWLEDGE & COMPETENCIES

Accounting & Finance	• Understand basic accounting and finance terminology • Apply managerial and cost accounting concepts in daily work • Conduct return on investment analysis • Employ inventory and inventory controls • Formulate and use key performance indicators
Communication	• Use appropriate interpersonal communications • Utilize effective oral and written presentation skills • Interpret data and translate to co-workers and supervisor
Information Technology	• Be proficient with the Microsoft Office software suite • Operate a labor management system • Operate a warehouse management system • Conduct data mining and analysis • Depict results of data mining into a report • Extract data from a programmable logic controller and analyze results • Use data identification systems including barcodes and RFID (radio frequency identification) tags
Leadership	• Achieve key performance indicators of the employer • Achieve key performance indicators of immediate customers • Serve as liaison between the operations team, equipment and space • Conduct “what if” analyses of multiple scenarios • Serve as a project manager
Logistics	• Understand the full spectrum of supply chain management • Manage the deployment of material handling equipment

TECHNICAL KNOWLEDGE

Industrial Engineering Technology	• Troubleshoot and resolve issues with unfamiliar processes • Understand basic capabilities and uses of simulations • Review vendor specifications • Use basic AutoCAD software functions • Adhere to safety concepts in operations and materials handling • Be aware of the regulatory environment • Apply ergonomics concepts within daily work • Conduct fundamental work measurement and time study • Adopt continuous process improvement to discover and resolve problems • Optimize resources (machines, technology, space, funding) within an environment

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Industrial Engineering Technology	• Review facility layouts for optimization • Design the optimal process for moving products • Understand the impacts of process on operations and equipment • Assist with the conceptual design and execution of processes • Exercise effective decision-making
Electro-mechanical Engineering Technology	• Understand the use and programming of programmable logic controllers • Recognize the fundaments of machine control • Use warehouse control systems • Understand basic IT networking for the location of data drops • Operate barcode scanners • Operate industrial electricity controllers • Be aware of the basics of heating, ventilating, and air conditioning within a warehouse • Apply basic facilities management principles

GENERAL KNOWLEDGE

• Basic mathematics (algebra, geometry, and statistics) • Customer service • Customer focus • Cultural diversity and respect • Expectation for continued personal and professional growth and development • High ethical standards	• Manage vendor relationships • Problem-solving • Project team skills • Read and interpret facility drawings • Time management • Work independently but knows when to reach out for direction and assistance

WORKPLACE DISPOSITIONS

• Common sense • Appropriate dress • Attention to detail • Confident • Dedicated • Efficient • Energetic	• Flexible • Good hygiene • Honest • Motivated • Personable • Proactive • Positive	• Punctual • Resourceful • Team player • Thorough • Trustworthy • Willing to ask questions • Willing to change • Work unsupervised

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