What Skills Do All Bioscience Technicians Need?

BIO Community College Program, June 16, 2015
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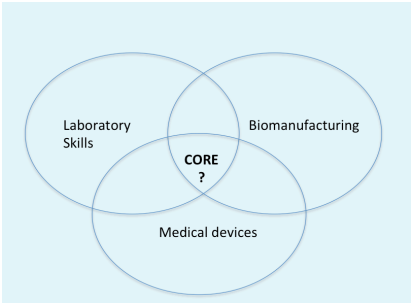
The Community College Consortium for Bioscience Credentials (c3bc) is funded by a DOL TAACCCT grant. The consortium includes 12 colleges, organized into four hubs, and is led by Russ Read at Forsyth Technical CC in North Carolina.

Biomanufacturing Hub	Laboratory Skills Hub	Medical Device Hub	Learning Hub
Led by Dr. Sonia Wallman, NBC2 Bucks County CC, PA	Led by Dr. Elaine Johnson, Bio-Link City College of SF	Led by Dr. Sengyong Lee Ivy Tech CC, IN	Led by Dr. Michael Ayers Forsyth Tech NC
Montgomery Co. CC PA	Madison Area Technical College, WI	Salt Lake City CC, UT	Alamance CC, NC
LA Valley CC, CA	Austin CC, Austin, TX	St. Petersburg CC, FL	Rowan-Cabarus CC, NC

Grant Strategies to Assist Displaced workers include:

- Expanded recruitment efforts
- **Harmonization of bioscience skill standards**
- Accelerating completion time in credentialing programs
- Building capacity for bioscience education



Bioscience Core Skill Standards: Previous bioscience skill standards have provided a useful vocabulary for educators, students and industry supervisors. In recent years, as the industry continues to mature and expand, workforce educational programs to meet diverse industry needs have multiplied. Therefore, our current efforts focus on identifying core skills that entry-level technicians would be expected to have across different subsectors of the industry in order to facilitate curriculum design, credential development, and career pathways.

Process to Identify Core: To determine the skills that are held in common across the three industry subsectors of Biomanufacturing, Medical Devices and Laboratory Skills, a working group was formed with a representative from each subsector. From a skills matrix contributed by each hub, the group determined commonalities and decided on consensus language in the chosen format. In order to make the skill standards more useful to all stakeholders, that format includes the following sections: Critical Work Functions; Key Activities; Performance Indicators, Underlying Knowledge and Assessments.

Progress to Date: Agreement has been reached on language for the Critical Work Functions and Key Activities (see back page). We are currently finalizing language for Performance Indicators, Underlying Knowledge and Assessments with a target date for completion of August 14, 2015.

Industry Recognition: Core Bioscience skill standards have been identified and vetted by educators with extensive experience in building bioscience technician education programs that are supported by industry advisory boards. In addition, a formal industry review process is currently underway.

For questions or suggestions, contact any of the team members below:

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Common Core Skill Standards for Bioscience Technicians

Critical Work Function: Maintain a safe and productive work environment	
Key Activities	Recognize unsafe conditions and take corrective and/or preventive action(s)
	Follow relevant safety policies, guidelines, and regulation (e.g. company, OSHA, EPA, CDC)
	Access and use MSDS (SDS) and other safety information sources
	Maintain a safe, clean, contamination-free, and clutter-free environment, as appropriate
	Select appropriate PPE to use to protect self from biological, chemical, and/or physical hazards
Critical Work Function: Provide routine facility support	
Key Activities	Monitor, maintain, and troubleshoot/repair equipment
	Use equipment correctly according to manufacturer's guidelines
	Maintain inventory of raw materials, parts, components and/or equipment
	Prepare materials/supplies/equipment for use
Critical Work Function: Perform measurements/ tests / assays	
Key Activities	Collect samples according to established procedures and applicable sampling plans
	Prepare samples according to established procedures
	Follow appropriate test procedures/instructions
	Document data & results according to established procedures
	Interpret and/or analyze data & results as appropriate
Critical Work Function: Comply with applicable regulations and standards	
Key Activities	Follow established policies and procedures
	Record information according to established procedures
	Exercise proper document control
	Participate in required training
	Respond to audit-related activities
	Adhere to control principles in accordance with the established quality system
	Adhere to traceability principles
	Participate in validation activities
	Recognize and address nonconformances
Critical Work Function: Manage and communicate information	
Key Activities	Comply with company communication policies
	Assist in reviewing/commenting, revising, and writing technical documents
	Suggest continuous improvements
	Use computer tools effectively
Critical Work Function: Perform mathematical manipulations	
Key Activities	Perform calculations relating to work function
	Perform data analysis

To access and view additional information associated with the Common Core Skill Standards for Bioscience Technicians, please visit https://goo.gl/XQylKG
or scan the QR code on the right with your smartphone or tablet.