National Career Pathways Network 2020

New Career Pathways and Microcredentials in Medical Device Networking, Security, and Manufacturing

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Background - What, Where, and Why?

What is Biomedical Engineering Technology?

Also called BMET, biomed, medical equipment/device repair technicians, and aka biomedical equipment technicians.

- assemble equipment
- preventative maintenance
- repair equipment
- document work
- update medical device software
- network medical devices
- maintain endpoint security

Where do they work?

- Hospitals
- Medical device manufactures
- Third party service providers

National Science Foundation: Biomedical Engineering Technology

Goal – Provide new onramps and offramps for students in BMET

Grant Objective
- Add three college credit certificates
- Add at least 15 industry identified badges/microcredentials
- Create competency based assessments for badges

Badging and Academic Pathways

ACADEMIC AND CAREER PATHWAYS

Badges/Microcredentials for Demonstrating Competencies

Three Certificate Program Tracks Embedded into A.S. Degree
30 credit hours

Associate in Science Degree including Internship
60 total credit hours

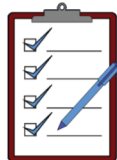### Bachelor of Applied Science Degree - 120 total credits

Badge Process

 IDENTIFY

 BUILD

 ASSESS

 PROVE

 SHARE

Badges Overview

Alignment
- Program Learning Objectives
- Course Learning Objectives
- Industry Core Competencies

Provide supporting content
Videos, activities, and articles

Define Criteria
Example "Perform tests to IEC$_{60601}$ standards"

Provide Recommended Assessment

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Medical Device Repair

Credits 24 Credit Hours
Time to complete ~1 year

Medical Device Design and Manufacturing

Credits – 27 credit hours
Time to complete ~1 year

Medical Device Networking and Cybersecurity

Credits – 27 credit hours
Time to complete ~1 year

Overall Structure

4 Year Degrees

Advanced~1 year

A.S. ~2 year

St. Petersburg College
Bachelor of Applied Science
Technology Development
and Management

Purdue University
HEALTHCARE ENGINEERING TECHNOLOGY
I.U.P.U.I CAMPUS - INDIANAPOLIS
THE DEGREE OF
Bachelor of Science

St. Petersburg College
Certificate
**Medical Device Design
and Manufacturing**

St. Petersburg College
Associate in Science
Biomedical Engineering Technology

Entry ~1 year

St. Petersburg College
Certificate
Medical Device Repair

St. Petersburg College
Certificate
**Medical Device Networking
and Cybersecurity**

Acknowledgements

Questions?

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