



NSF ATE Grant #1902075: 2019 - 2022

**Increasing the Number of Workforce-Ready Engineering Technicians in Southeastern Pennsylvania**

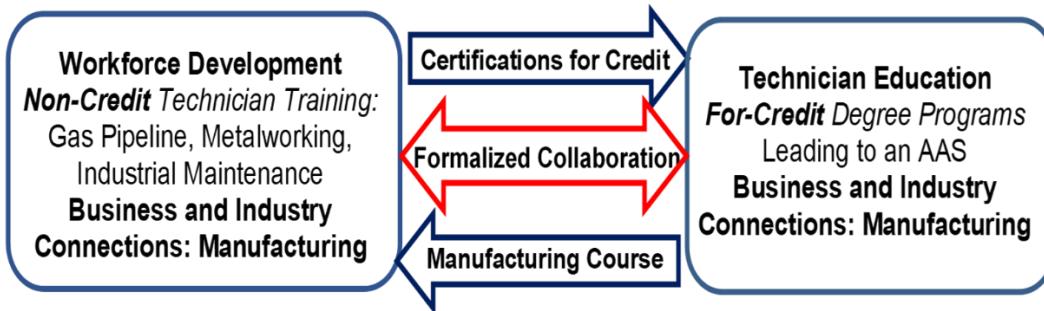
PI: Dr. Christine Delahanty, [Christine.delahanty@bucks.edu](mailto:Christine.delahanty@bucks.edu)

Co-PIs: Dr. Vladimir Genis, [genisv@drexel.edu](mailto:genisv@drexel.edu); Ms. Susan Herring, [susan.herring@bucks.edu](mailto:susan.herring@bucks.edu);  
Ms. Tracy Timby, [tracy.timby@bucks.edu](mailto:tracy.timby@bucks.edu)

**Goal #1:** Enhance the engineering technology curriculum in collaboration with our Business and Innovation Department and with our Center for Workforce Development (CWD)

**Goal #2:** Enhance our engineering design course to include additive and subtractive manufacturing

**Goal #3:** Create pathways into our programs for underrepresented groups: Community Outreach to K-12 Schools!



**ENGINEERING TECHNOLOGY (AAS 2193 Occupational)**

\*Embed career exploration and soft skills training into curriculum as part of our college readiness course (Bucks+)

**Degree Course Requirements:**

COLL101 Introduction to College

1

MGMT155 Entrepreneurship 3

ENGR112 Engineering Design and

**Manufacturing**

4

MATH115 Elementary Statistics 3

CHEM121 Chemistry I

4

MATH125 Pre-Calculus 4

Computer Science Elective

3-4

PHYS106 Physics A 4

MGMT135

3

PHYS107 Physics B 4

COMM110 Effective Speaking

3

ENGT240 Applied Circuits and 4

ECON111 Macroeconomics

3

ENGT222: Applied Statics 3

Arts/Humanities

3

Technical Electives 12

Internship 3

64 - 65

\*\*Technical Electives include Certifications through our Center Workforce Development, and Prior Work Experience

Three modes of teaching engineering technicians during the pandemic:

Online (asynchronous format), Remote (synchronous via Zoom), Hybrid (at Home and at School)

**Resources**

Bucks County Community College (Bucks) Website: <https://www.bucks.edu/>

Engineering Technology Major at Bucks: <https://www.bucks.edu/catalog/majors/stem/engineeringtechnology/>

Workforce Development at Bucks: <https://www.bucks.edu/workforcedevelopment/>

Bucks+ at Bucks: [https://www.bucks.edu/bucks+/-](https://www.bucks.edu/bucks+/)

Drexel University Engineering Technology Program:

<https://drexel.edu/engineering/academics/departments/engineering-technology/>