



COMMUNITY COLLEGE
OF BEAVER COUNTY
CCBC.EDU

Process Technology: Flexible Entry/Flexible Exit Curriculum Adaptation (2018 – 2021)

Background

Community College of Beaver County (CCBC) will enhance a regionally-distinctive Process Technology (PTEC) program by converting a traditional lecture/lab structure to a Flexible Entry/Flexible Exit delivery format to increase student accessibility and the number of credentialed process technicians in the tristate region (Pennsylvania, Ohio and West Virginia).

The Flexible Entry/Flexible Exit format permits students to seamlessly enroll in PTEC technical courses at virtually any point in the academic year, complete the courses at their own pace, and increase the amount of time spent dedicated to hands-on technical education.



National Science Foundation
WHERE DISCOVERIES BEGIN

Accomplishments

The Flexible Entry/Flexible Exit (FEFE) model was launched in fall 2019

- First year Process Technology program (PTEC) 3- and 4-credit courses were modified into 14 1-credit courses. The online course content (announcements, PowerPoints, video-captured lectures, learning journal assignments, quizzes [3 per course], and final exam) and labs (lab training manuals [3 per course] and final lab assessment) were created and loaded into Blackboard.
- Second year PTEC program 3- and 4-credit courses were broken into 19 1-credit courses. The course syllabi were approved by the College curriculum committee in Third semester courses were fielded in fall 2020 and fourth semester courses will be fielded in spring 2021.

Faculty Development

- Faculty participated in pedagogy training (full indoctrination into the FEFE model and how to facilitate student learning using Blackboard and during the open lab structure), content training and vendor-led training equipment training.

Outreach and Partnerships

- Beaver County Energy and Advanced Manufacturing Partnership. This partnership held a STEM event at CCBC in October 2019. Over 800 middle school students attended the event, participated in hands-on STEM activities with over 25 area advanced manufacturing and construction companies, and enjoyed a panel presentation of young STEM professionals from large energy and construction companies.
- Tristate Energy and Advance Manufacturing Consortium (TEAM). The “TEAMing Up to Build Pathways to Jobs” project was funded specifically to: (1) align relevant curricula among higher education institutions to facilitate the creation of seamless pathways to jobs, even across state lines by providing the project with a qualified Curriculum Coordinator, (2) provide necessary online access to information and referrals to programs within energy/advanced manufacturing by funding a new website, and (3) build on the success of outreach and engagement practices that raise awareness of, change perceptions about and increase interest in pursuing occupations in these targeted STEM and manufacturing sectors by providing matching funds to partner colleges for this purpose.

Challenges

- The lead faculty/co-PI experienced health issues in spring 2019 and left the College in September 2019. After an exhaustive search, a new lead faculty was hired and began in August 2020.