North Central State College was awarded the Bioscience Expansion Project grant via the ATE branch of the NSF in 2018. In year two, the authors were able to provide several deliverables but encountered a major stumbling block in March due to COVID-19. They were able to pivot with the changing educational climate via lessons learned through this grant and provide support to their entire Division.

The focus of this presentation has three components. We will be (1) discussing how our Hybrid format courses allowed a smoothed transition to a completely online format in the wake of COVID-19, (2) looking at our outreach throughout Ohio, highlighting the Mansfield Children’s Festival and (3) displaying our success in developing articulation agreements.

**Abstract**

North Central State College was awarded the Bioscience Expansion Project grant via the ATE branch of the NSF in 2018. In year two, the authors were able to provide several deliverables but encountered a major stumbling block in March due to COVID-19. They were able to pivot with the changing educational climate via lessons learned through this grant and provide support to their entire Division.

Introduction

This project’s design will assist the local workforce to fill a critical shortage in the Biotechnology field. This area is seeing increased demand in Associate Degree level jobs; this grant is designed for students to enroll in evening classes while beginning employment in the field. The grant has three main components:

1. Delivery of hybrid course content via one a night for one class model. The course materials will be available for public dissemination upon completion of the grant.
2. Building collaborations with local and national community partners in business and education to identify prospective students and assist them throughout their careers.
3. Promote workforce sustainability by targeting Career Center and High School student populations to maintain prospective employee levels for the Biotechnology field.

The experience granted by the generation of these Hybrid courses were then utilized as the backbone of our fully online course offerings during the Spring of 2020. The authors were able to support their Division in developing online coursework to support the students of north central Ohio. This was featured in the ATE IMPACTS BLOG and can be found here: [https://atecentral.net/impacts/38553/ate-project-informed-the-pivot-to-online-science-courses-in-covids-wake](https://atecentral.net/impacts/38553/ate-project-informed-the-pivot-to-online-science-courses-in-covids-wake)

The College has plans to work in a Hybrid format for the Fall of 2020, utilizing the same model as outlined by the grant.

**Current Results**

Current results include the modification of curriculum in General Biology I (BIOL 1230), General Biology II (BIOL 1231), Introduction to Bioscience Lab Techniques (BIOS 1010), Environmental Science (BIOS 1030) and Introduction to Agricultural Science (BIOS 2440) which were completed pre-COVID. Histology (BIOS 1210) was reviewed and approved in March 2020. The QM committee graciously reviewed this during the challenges of the pandemic. These modifications were undertaken at the direction of NCSC’s Quality Matters Development Process that utilizes the Quality Matters™ Rubric.

**Pivoting with a changing world**

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The College has plans to work in a Hybrid format for the Fall of 2020, utilizing the same model as outlined by the grant.

**Outreach to the community**

The authors were able to interact with the next generation of technicians through tours of the Bioscience laboratories in December of 2019 reaching more than 200 local high school students and through the Mansfield Children’s Festival in July of 2019 where more than 1000 children were in attendance. We were also able to reach approximately 100 students and industry representatives via attending the 2019 Ohio Bioscience Expo in Columbus, Ohio.

**Collaborations and partnerships**

A partnership agreement was completed with Ashland University in October of 2019. The picture contains Dr. Mason Posner and Jason Tucker M.S. seated at a table with Dr. Amy Jarstfer, Provost of Ashland University standing behind them.

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**Disclaimer**

Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.