



College: Indian Hills Community College

Project: Developing Photonics Education in Iowa's Secondary Schools or Rural Iowa Photonics Education (RIPE)

• Project Goal: To Increase the Number of Rural Iowa High School Students in the U.S.A. Photonics Technician Pipeline.







Project Objectives:

- 1. Offer a dual credit photonics course to rural lowa High School students via a hybrid online learning platform.
- 2. Provide professional development and follow-up assistance to Iowa High School teachers to have photonics infused into their courses
- 3. Host a photonics summer institute to provide rural lowa high school students and teachers with more in-depth exposure to the field.

Year One (2018/2019):

Created 2 - high school courses based on 1 - college course in Photonics Fundamentals.

Created 16 lab videos and 16 lab instructions.

Contacted nine high schools.

Year Two (2019/2020):

19 tudents enrolled (four high schools)

17 finished First Semester Course (required for Second Semester Course)

9 finished Second Semester Course (three high schools)

5 of those were Seniors

1 of them enrolled in Laser & Optics at Indian Hills

Submitted No Cost Extension and proposal for Supplemental Funding for one year.

Year Three (2020/2021):

PANDEMIC!

3 students are currently enrolled (two high schools; one is a new one).

Contacted 20+ high school; most were not communicative.

Collaborations/Partnerships:

North Mahaska High School, New Sharon, IA Davis County High School, Bloomfield, IA Ottumwa High School, Ottumwa, IA

Grant activities:

Outreach to rural lowa High Schools to introduce them to the project Develop and conduct dual credit Photonics Fundamentals course for rural lowa High Schools Re-create lesson plan in light of PANDEMIC.

• P.I. contact information:

Frank E. Reed, Jr. Grant Director & P.I. Frank.reed@indianhills.edu 641.777.3538