

January 23, 2020

# GALLATIN COLLEGE: PHOTONICS DEVELOPMENT AND ONGOING PARTNERSHIP



## 1. ORIGIN OF PARTNERSHIP

In 2012 the Governor's Office of Economic Development identified a fast-growing cluster of optic/photronics companies with 450 employees in the Gallatin Valley. In 2013 the Montana Photonics Industry Alliance (MPIA) was formed. Now there are over 40 optics/photronics companies in the valley with over 700 employees.

- Fall 2014 MPIA reaches out to Gallatin College and request the development of a Photonics, Laser and Optics technician program.
- Staff at Gallatin College and members of MPIA design program and set out to apply for a National Science Foundation to assist with start up funding.
- Fall 2016 the Two-year Associate of Applied Science in Photonics, Laser and Optics starts.

## 2. NATURE OF PARTNERSHIP

Symbiotic – allows for industry growth and development utilizing skilled Gallatin College students and Gallatin College can provide relevant advanced training with the assurance of student employment placement during the program and at graduation.

- Industry partners participate on the Gallatin College Photonics Industry Advisory, provide feedback on curriculum, guest lecture.
- Partners donate equipment, materials and supplies.
- Partners hire students Gallatin College students.

## 3. HIGHLIGHTS

- National Science Foundation Grant supported the startup of this expensive program, \$35,000 per laser unit. Gallatin College now has four laser optics stations. Three students per laser is appropriate.
- Establishment of a fully equipped 4-station high powered Class IV Laser teaching lab. That meets industry specifications.

- Since fall 2016, 13 have graduated, 22 are currently enrolled. This is considered a full program, 90% enrolled.
- 11 are working in industry, one is continuing on to MSU.
- Shares 2 electronic lab spaces and one basic laser lab with MSU helped with start up cost.

#### 4. WHAT GALLATIN COLLEGE AND LEARNED

- Internships and apprenticeships were not necessary for all students because of the workforce demands. Employers wanted to hire students as soon as possible.
- Provide flexibility for students so they can work in the industry while they complete the program.
- Always validate with labor market data and employer's commitment to hire.

#### 5. WHAT CAN THE STATE DO TO INCREASE PARTNERSHIPS?

- Provide start-up funds for two-year colleges and industry to access to quickly begin new programs. New program should demonstrate industry desire, strong workforce demand and wage growth for students.
- Utilize Department of Labor and Industry to strategically identify what industries will require additional trained workers now and into the future. This should be a regional specific approach unless it's a statewide need, for example IT.
- Support local industry clusters such as MPIA.
- Assist in the message of supporting the Montana economy, 70% of future job projections in Montana require an Associates Degree or less. We need high visibility to school students, parents, counselors and legislators to understand this fact and the Montana economic need.
- The Office of the Commissioner of Higher Education is working on reducing the time to approval for these programs. Supporting this is important.
- Acknowledge that advanced technical programs are expensive because they all involve labs with equipment. With tuition being half of the four-year tuition, it is a challenge to pencil out, therefore state support is helpful.

