

The NSF Developing Photonics Education (DPE) project (#1800935) in collaboration with the NSF Micro Nano Technology Education Center (MNT-EC) project (#2000281), hosted the 2021 Photonics Institute, July 12 – 15 at Indian Hills C.C. in Ottumwa, IA.

The following is the agenda for the week. The Indian Hills Laser & Optics Technology students joined this event on Wednesday and Thursday.

Monday, July 12th (all times subject to change):

- 0800: Meet & Greet at IHCC's Advanced Technology Center (ATC), Room 120
Early morning beverages/snacks
Getting acquainted
Questions and Answers
- 0900: An IHCC/DPE/MNT-EC presentation
- 0930: Lasers & Optics (Photonics Fundamentals) presentation
Material given:
Booklet 1: *Photonics Program Planning Guide for High Schools*
Booklet 2: *Photonics Lab Manual for High Schools*
Booklet 3: Intro to Lasers & Optics Reference Guide for Instructors (file/online at <https://laser-tec.org/>)
Textbook: *Fundamentals of Light and Lasers*
Photonics Kits (LASER-TEC)
- 1130: Lunch: IHCC Campus Cafeteria/Café
- 1230: Finish presentation
- 1500: Lab Write-up procedure with format
- 1515: Several Hands-On Labs (TBD) from Lab Instruction Manual
Please observe how components are package and placed
First LAB 1-2A - Familiarization with Optical Equipment and Components
Various labs from the Photonics Kit Lab Instruction Booklet
- 1600: Done for the day

Tuesday, July 13th (all times subject to change):

- 0800: Meet & Greet with treats & Q&A.
- 0900: Several Hands-On Labs (TBD) from Lab Instruction Manual
Please observe how components are package and placed
Various labs from the Photonics Kit Lab Instruction Booklet
- 1130: Lunch: IHCC Campus Cafeteria/Café
- 1230: Several Hands-On Labs (TBD) from Lab Instruction Manual
Please observe how components are package and placed
Re-package and replace components into kit.
- 1600: Done for the day.

Wednesday, July 14th:

- 0800: Meet & Greet with treats & Q&A.
Tours of local companies (Vermeer & Co-Line) utilizing high powered laser systems
- 0930: **Vermeer Corp**, Pella, IA: Founded in 1948; they design, manufacture and support high-quality industrial and agricultural equipment. Their customers rely on Vermeer to keep their businesses moving forward and we are committed to meeting customer's needs with full service and support in more than 60 countries. <https://www.vermeer.com/na>
- 1130: Lunch in Pella, IA at The Windmill Café.
- 1300: **Co-Line Mfg.**, Lynnville, IA: Since 1979, they have been in the metal fabrication industry. Their manufacturing facilities house some of the best metal processing equipment in the industry. Utilizing technology advancements & updated equipment makes Co-Line a one-stop shop for all your metal fabrication needs.
- 1600: Done for the day.

Thursday, July 15th:

- 0800: Meet & Greet with treats & Q&A.
- 0900: Laser & Optics Industry Panel
Four IHCC Laser & Optics Alumni
- 1130: Lunch: IHCC Campus Cafeteria/Café
- 1230: Tour IHCC ATC with emphasis on lasers/optics
- 1500: Surveys and administrative stuff
- 1600: Done for the day

The August 2 & 3, Photonics Symposium will follow an agenda much like the first 2 – days of the Institute. Currently have 2 – registered. Registration is open until the end of the first day.