

About AIM Winter Academy

The AIM Photonics Winter Academy is an annual three-day intensive program that introduces attendees to the materials science, device physics, and circuit design principles relevant for fabricating photonic integrated circuit prototypes using the Multi Project Wafer run (MPW) methodology of semiconductor chip foundries. The program provides an accelerated introduction to working directly with the most advanced state of the art 300 mm semiconductor processing research fab in the world, operated by AIM Photonics and located at SUNY Polytechnic Institute.

Who should attend AIM Winter Academy?

AIM Winter Academy's audience is primarily industry professionals with little to moderate photonics knowledge or photonics manufacturing competency; our audience also includes faculty interested in building an Integrated Photonics instructional track at their university or community college. Lastly, our audience includes advanced undergraduate and graduate university students, seeking to diversify their skill set and learn about both the fundamentals of photonics design and an introduction to photonic integrated circuit fabrication.

What will you learn at AIM Winter Academy?

Attendees acquire a core competency in photonic device design, photonic integrated circuit (PIC) layout, and PIC manufacturing principles. The Academy program will enable attendees to:

- Identify trends in the optical components industry for datacom, signal processing, sensing, and automotive applications.
- Evaluate the latest silicon photonic devices and foundry chip production methods for these applications.
- Use Process Design Kits (PDKs) to create PIC designs and learn how to submit a PIC design for fabrication with AIM Photonics.
- Evaluate and execute design tradeoffs to meet high volume manufacturing constraints for large scale integration of thousands of device components in a PIC.
- Use design rules for the design requirements to fabricate a PIC with AIM Photonics.
- Create and use product roadmaps that incorporate the benefits of electronic-photonic integration in PICs.

Quick Facts

- AIM Winter Academy runs from January 16-18, 2018 at MIT.
- Admission for the 3-day instruction and networking dinner is \$1000.
- A [map](#) of the city of Cambridge, showing important landmarks, facilities and restaurants close to MIT.
- Open to industry professionals (researchers, baccalaureate engineers, technicians, management); academic students (senior year undergraduate, graduate level Master's or PhD); and academic faculty (university, community college) with interests in related research or in building an integrated photonics track at their home institution.

- Registration is limited and based on a first come, first served basis.
- Registration requires your name, affiliation, email/phone contact information, a short description of your background in photonics, and a short description of three photonics learning goals that are a priority for you in taking this intensive program.
- Your registration will be confirmed via email, and will include additional instructions on how to complete your registration fee payment with MIT's online Ticket Office.
- Housing is off-campus and must be arranged by the attendee; [click here](#) for a comprehensive MIT online resource to find local hotels or bed-and-breakfast options.
- Coffee/tea will be available in the mornings. Lunch will be provided Tuesday through Thursday. Attendees are expected to arrange for their own dinners. Several convenient dinner options are available within MIT campus and in nearby Kendall or Central Square.
- Arriving late or departing early could compromise your learning experience. Registrants should attend all registered program dates. The Winter Academy program immerses attendees in a collaborative learning experience that includes daily team work on an integrated photonics design challenge project, and full attendance is important in order to contribute fully to this hands-on learning process and master the curriculum milestones.