Portland Community College

Electronic Engineering Technology

Associate of Applied Science

Portland Community College

What do EET techs do?

Electronic Engineering Technicians apply electrical and electronic skills under the direction of an engineer, to *manufacture, repair, troubleshoot, service, and operate electronics systems*. They can also assist engineers with the design process.

How much are the EET techs usually paid?

The US Department of Labor reports that Portland Metro area electronic engineering technicians earn between $21 and $43 per hour. The median annual salary in the
Portland Metro area is around $63,000.

What is the difference between engineering technology and engineering?

•Engineering Technology:

- Employable in 2 years as a technician
- Math prerequisite is placement in Math 111 (College algebra)
- Technician does hands on work and usually works under the supervision of an engineer
- EET AAS degree transfers only into BSEET 4-year degrees, most often to Oregon Institute of Technology (OIT)
- Technician Salaries range from $21 to $43 hourly, with the **median** of around $31 hourly (or about $65,000 yearly)

•Engineering:

- Employable in 4+ years as an engineer
- Math prerequisite is placement in Math 251 (Calculus I)
- Engineer designs and manages projects and people
- Take up to 2 years at PCC, and transfer to PSU, OSU, OIT or other 4-year universities
- Engineer Starting Salaries range between $28 to $61 hourly, with a **median** of around $43 hourly (or about $91,000 yearly)

What are the degrees/certificates offered in the EET department?

PCC Offers an **Associate of Applied Science (AAS) of Electronic Engineering Technology**

To understand what is required for the option *you select*, you would need to select one of the following as your major:

- **Associate Degree: Electronic Engineering Technology**
  - EET: Biomedical Engineering Technology
  - EET: Renewable Energy Systems Technology
  - EET: Wireless and Data Communication Engineering Technology
  - EET: Mechatronics/Automation/Robotics Engineering Technology

There is also a Career Pathway certificate offered – Electronic Engineering Technology (EET) Certificate

What about transferring to a 4-year degree program?

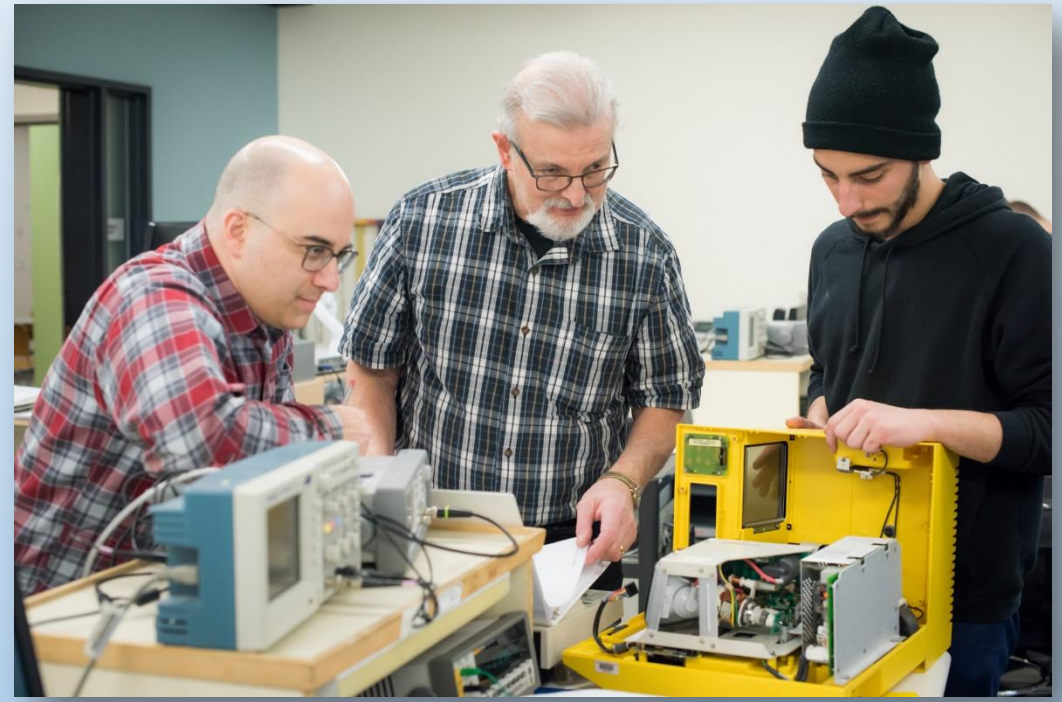
- EET students can transfer *some* credits to Oregon Tech for a Bachelor of Applied Science in EET or a BS EET degree program, but not an ***electrical engineering (EE)*** program.

- In Oregon, PCC has a transfer agreement with **Oregon Institute of Technology (Oregon Tech)** — check the EET website to see the course-by-course transfer agreement with OIT

Prerequisites for all programs**

- *Placement into* Math 111
- *Completion* of Writing 121

**Biomedical Engineering Technology has additional program prerequisites *before the second year*: Medical Terminology (MP 111) *and* Anatomy and Physiology (BI 120 OR BI 121/122 OR BI 231/232/233)



How do I prove I meet the prerequisites?

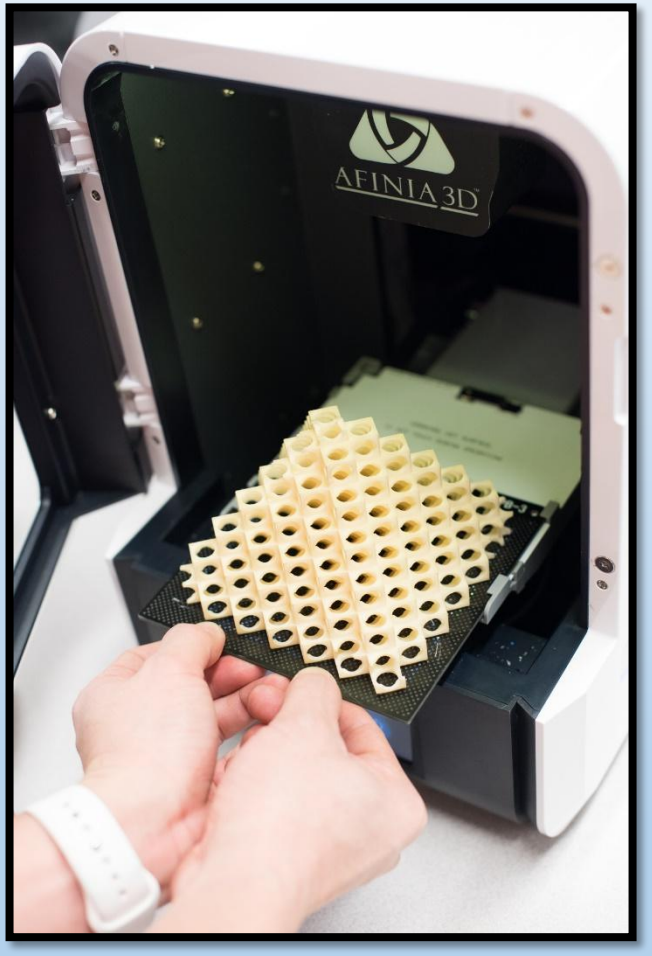
Take a Placement Test

- ❑ Apply for admission to PCC
- ❑ Take the ALEKS online Math placement test
- ❑ Take the Reading and Writing placement test at any PCC campus

OR

Submit transcripts from previous schools:

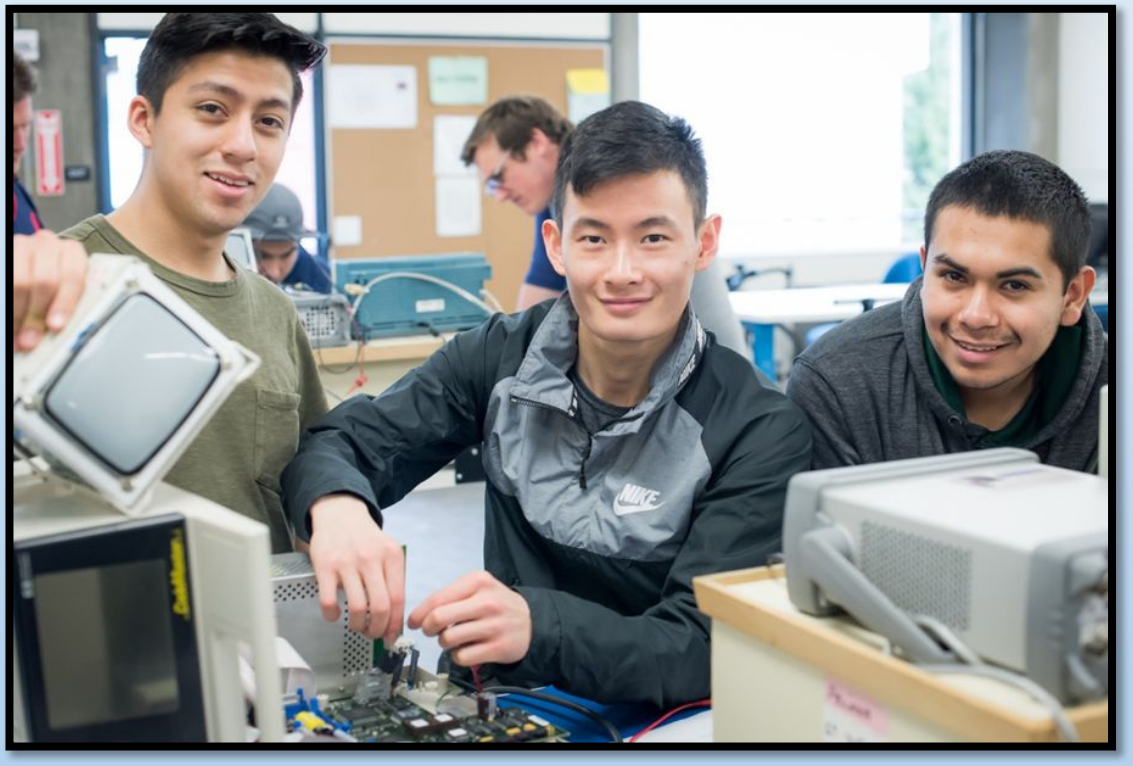
- ❑ Have your previous college send sealed official transcripts to **PCC Student Records for transfer evaluation**.
- ❑ The program advisor can use ***unofficial*** transcripts for advising and placement purposes only



Electronic Engineering Technology (EET) Degree

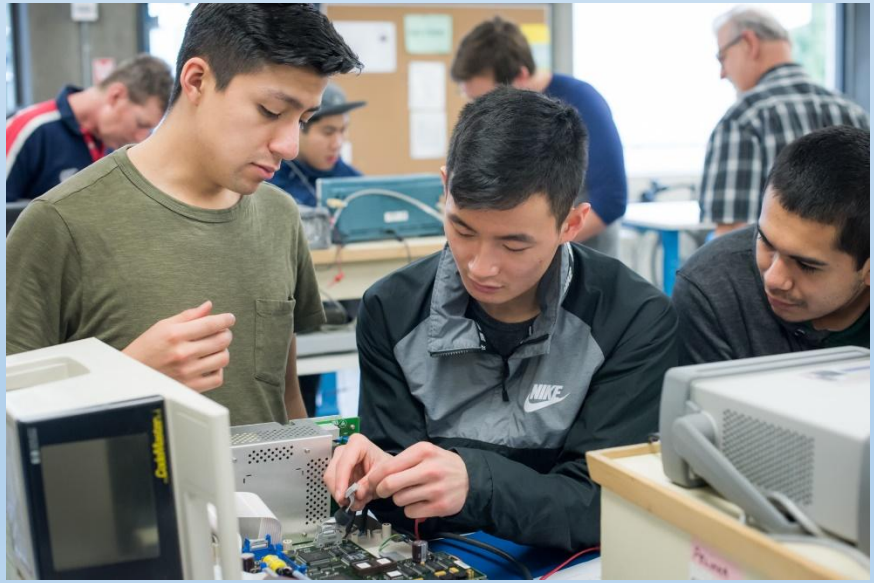
Associate of Applied Science degree

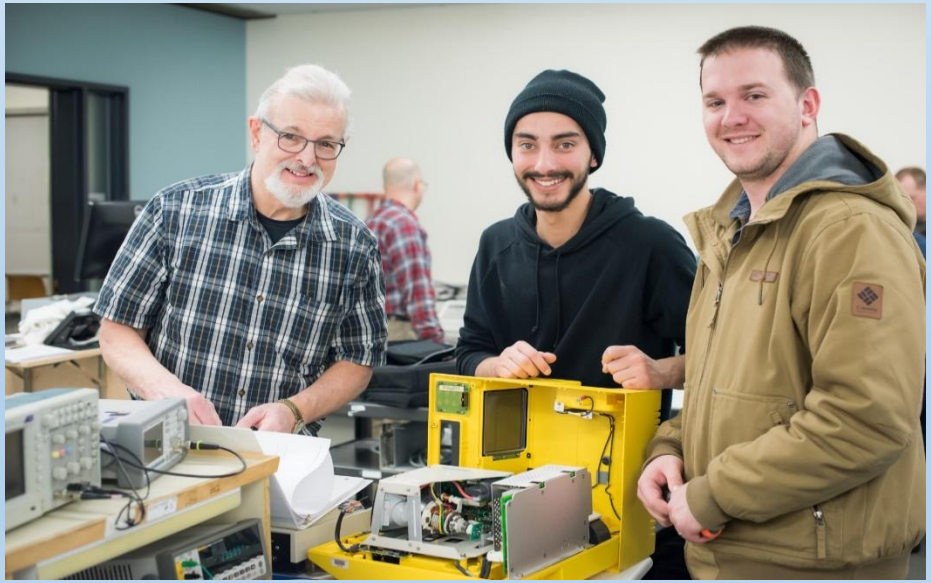
- Students can select the general EET degree and/or a specialty option
- Students learn good communication skills, problem solving, and teamwork (soft skills valued by employers)
- Potential employers: **Intel, Microchip, Maxim, Rockwell Collins, Biotronik, Tektronix, etc.**



AAS EET: Wireless and Data Communication Option

- Radio frequency, microwave, cellular, commercial broadcast – these represent a sample of the communications fields explored.
- Graduates of this program can find work in the **servicing, repair and manufacturing of communications equipment** in fields like satellite, radar and data applications**.**
- Potential jobs are in telecommunications, Intel, ODOT, hospitals and the Department of Forestry, and the IT department of any company.





AAS EET: Mechatronics/Automation/Robotics Option

In the Mechatronics/Automation/Robotics program students learn skills in electronic engineering, computer controls, instrumentation, sensors and controls circuitry.

A technician can work in the manufacturing, servicing and repair of a wide array of automation equipment.

**Note: the NW food processing industry will have a particular need for trained technicians as their skilled workforce retires in the coming years. Robotics are key in this industry.*

Local employers include almost any manufacturing facility.

AAS EET: Renewable Energy Systems Option

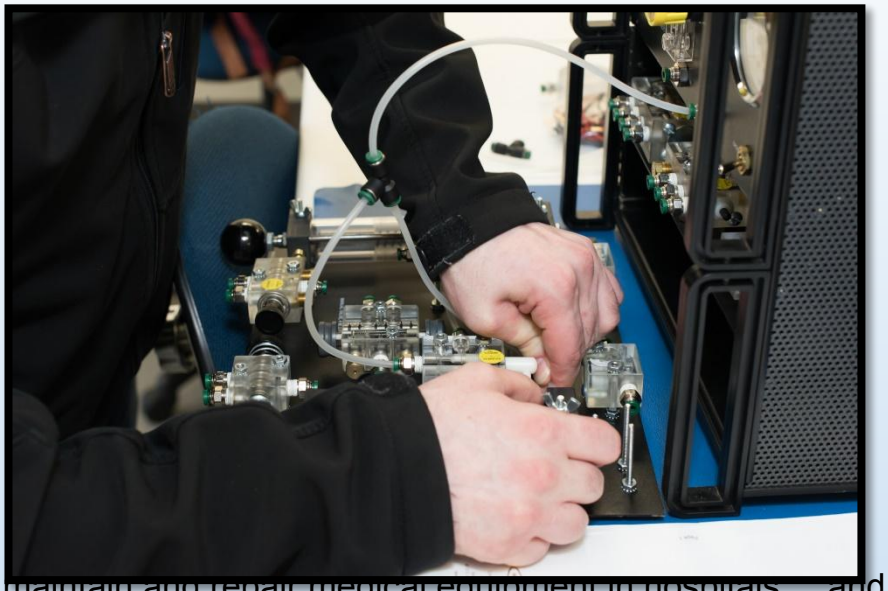
Prepare to work as a technician in the solar, wind, fuel cell and other green industries and in energy efficiency.

Potential solar employers include Solar Manufacturing and other smaller solar manufacturers

Potential wind employers include Vestas, GE Power, Siemens, Iberdrola, Suzlon and PGE.*

*For wind, you will need to be able to climb up 250+ feet to work on a wind turbine, and be prepared to move outside of Portland. Jobs are all over the country.

Biomedical Engineering – EET Option



Biomedical Engineering Technicians troubleshoot, maintain and repair medical equipment in hospitals and other medical facilities, or work for equipment manufacturers as field technicians.

- You will receive a unique combination of classroom and hands-on training , including a 330 hours co-op/ practicum in a hospital or a medical equipment manufacturing setting. ***The co-op/practicum is not a paid internship.***
- **NOTE: the EET 280C – coop class of 330 hours are offered in hospitals only in the daytime – students planning to start in the winter evening classes please take note and plan accordingly since you cannot complete the EET 280C class during evening or weekends.**
- Local employers (and possible internship sites) include Kaiser Permanente, PeaceHealth Southwest Medical Center, Providence, Legacy, Veterans Administration, OHSU, Portland Adventist, Tuality Hospital, and Biotronik.
- ***You will need to pass a background check; Students with drug felonies are generally not eligible for hire in hospitals.***
- ***You will need to provide vaccination records***
- ***Each hospital has different prerequisites to get you on their site and sometimes services of a third-party vendor, CastleBrach, may be involved in the process - there may be some fees involved with the completion of background check, immunization records check, etc.***
- ***The department monitors the enrollment in the biomedical engineering option to not exceed 20 per year since enrollment larger than this may result in a delay with placing students with a hospital co-op site and therefore graduation.***

Currently day and evening classes are intended to be offered...

- **Fall cohort for new students** begins each September - classes are in the daytime (approximately 8:00 AM - 5:00 PM), M-F
- **Winter cohort for new students** begins each January – classes are offered in the evening, generally from 6-10 PM, M-F
- During Summer Term we usually try to offer EET 101A, EET 113, EET 123, EET 178 – changes may apply. **EET 113/123 are usually offered during evening and EET 178 is offered on Saturday.**

Registration for Winter term will begin the week of November 15th

How to plan courses?

There are some tips for ensuring successful registration for EET courses!

Understand the prerequisites:

- EET 101A prereq is WR 121, and a co-requisite **or** prerequisite of EET 188 *and also* MTH 111
- EET 111 is looking for EET 101A and MTH 111
- EET 121 is looking for EET 111

So for your first term, **first** add MTH 111, ***then*** add EET 188, then EET 101A, ***then*** EET 111 (lab AND lec), ***then*** EET 121 (lab AND lec)

If you get a prereq error for a WEB class that you meet listed prereqs for, it means you need to complete Virtual Backpack: The Start Guide for Online Learning

How to plan courses?

There are many resources available to help you plan for your courses and expenses!

- Use your GRAD Plan
- *Use the PCC Catalog to learn about programs overview/degrees/course descriptions*
- *Program Estimated Cost*
- *Current Class Schedule*

You don't have to do this on your own though! Your Academic Advisor can help!

Make sure you complete the program interest form!

Credit Transfer Evaluation/Course Substitutions

- **Provide Official Transcripts to PCC Student records** for an evaluation of *any* General Education, including Writing Competencies, Math Competencies, and courses that might satisfy Arts and Letters, Social Sciences, and the Science, Math, or Computer Science distribution areas from another college or university
- For **technical courses** evaluation contact **Sanda Williams, EET Department Chair,** at **sanda.williams@pcc.edu, 971-722-4527** Include in the email:
  - **Student name and G #**
  - **Unofficial transcript**
- For **Non -Traditional Credits** such as industrial training, military training, or to challenge a course, follow the guidance here (Sanda would need to approve as Course Subs)
- For **Foreign Transcripts** follow the guidance here, or contact Sanda Williams
- If you have completed courses at a participating university, see more information here for **Reverse Transfer**

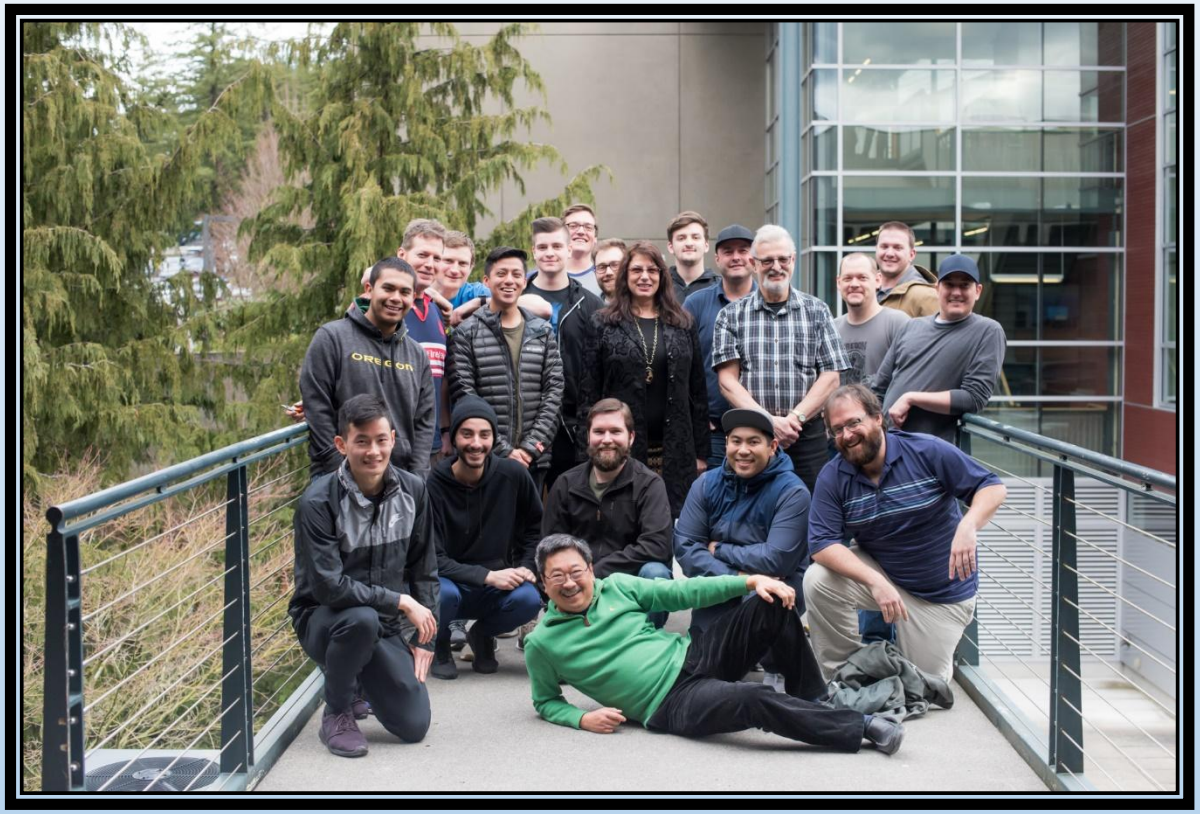
Funding your education

- Apply for **FAFSA** (fafsa.gov)
- Apply for a **PCC Scholarship** through the PCC Foundation – check with them about which scholarships may apply to the EET students
- Talk to the EET student advisor to find out about **special in-house scholarships.**

How do I take classes in the EET Program

1. Apply for admission to PCC
2. Complete the placement process, or send official transcripts to PCC Student Records
3. Register for classes
4. If you'd like to meet with a program advisor, complete the EET Programs Interest Form *This lets me know you'd like to meet with me for first term planning, and helps us understand who is in our program for which options.*

Questions?



Contacts for the EET Department:

Stedman Bailey, EET Student Advisor, 971-722- 4130, stedman.bailey@pcc.edu

Sanda Williams, EET Department Chair, 971-722- 4527, sanda.williams@pcc.edu