BACHELOR OF APPLIED SCIENCE
Electrical Engineering

Study at the cutting-edge of technology and be part of global solutions related to energy conservation, power grids, communications networks, and intelligent products.

UBC’s Electrical Engineering students are solidly schooled from the ground up before studying modern topics in electrical engineering, including communications, electromagnetics, microsystems, nanotechnology, power systems, and electronics. The focus of your program can be tailored to your own expertise and interests.

Specialization description

Program highlights

The path to a Bachelor of Applied Science (BASc) degree begins at the School of Engineering in the Faculty of Applied Science with the Engineering common first year foundation rooted in project-based team learning. School of Engineering students go through the 2nd year placement program to declare their specialization. Second-, third- and fourth-year students further hone their expertise by taking more specialized courses in sub-disciplines.

Your career options

Electrical engineering offers dynamic career paths for graduates who want to be part of global solutions for energy conservation, power grids, communications networks and intelligent products.

Visit the "Where can engineering take you?" webpage for more employment information.

Getting Started

First-year standing

Explore the Electrical Engineering specialization in the Bachelor of Applied Science program by visiting the program website or reviewing the Academic Calendar. Learn more about your specialization requirements by logging into Degree Navigator and reviewing the First-Year Planning Guide, and reviewing the Electrical Engineering Curriculum Map.

Book an appointment with School of Engineering Undergraduate Academic Advising to discuss academic & program questions. Visit the Student Learning Hub throughout your degree for free supports from peers and professionals that include tutoring in math, sciences, languages, and writing.

Participate in Supplemental Learning - free, weekly, peer-facilitated study sessions. Meet with an instructor or TA during office hours: ask a question, discuss an assignment, or go over lecture material.

Moving Through Your Degree

Second-year standing

At the end of year one complete a placement form to select which Engineering specialization you would like to pursue in your second year. Review the School of Engineering Curriculum Maps regularly to check your degree requirements, pre-requisite and co-requisite courses. Consider applying to add a minor in Arts, Management or Computer Science or applying to the Biomedical Option or Mechanics Option. Applications open in May of each year.

Explore employment opportunities to strengthen your skills through the Engineering Co-op Program. Apply in September of Year 2 or 3 of the BASc degree program.

International Students: Contact International Student Advising to review your study status.

Moving Through Your Degree

Third-year standing

Explore a topic of interest in depth by participating in Undergraduate Research. Planning to enter the workforce after grad? Attend career events and workshops. Study abroad by participating in a Go Global program such as exchange, faculty-led global seminar, or research abroad.

Consider further education? Find graduate programs at UBCO and beyond. Research application requirements, admissions information, and funding options. Build your network by participating in the UBC Mentorship program to develop impactful relationships with industry professionals and other students.

Preparing for Graduation and Your Future

Fourth-year+ standing

Market yourself to employers by reflecting on your UBCO experience and identifying the skills and knowledge you developed through the activities you participated in.

Meet with a Career Development Specialist for help with your resume, cover letter, and job search strategy.

Work with community partners to solve real-world problems in the 4th year capstone course.

Submit a Grad Check Request after registering for your final term(s) to confirm that all academic graduation requirements are met.

Study abroad opportunities to strengthen your capacity to understand the changing world and embrace different perspectives by seeking out new experiences and opportunities.

Looking for support?

UBC Okanagan provides a broad range of support services for students from admission through to graduation. Ranging from help with academics and careers to physical and emotional resources, visit Student Support and Resources for a full list of helpful supports. Some examples are included below:

- Academic & Career Development provides academic and career support for all undergraduate students. School of Engineering Academic Advising provides academic support specifically for Engineering students.
- Indigenous Programs & Services provides academic support to self-identified First Nations, Métis, and Inuit students
- International Programs & Services provides academic support to international students
- Disability Resource Centre assists with disability-related accommodations and programming initiatives to help remove barriers for students with disabilities and ongoing medical conditions
- Counsellors help students examine and explore their behaviors, relationships, feelings, or thoughts that cause concern or challenges
- Financial support is available to help students learn to budget, pay tuition, or apply for awards and scholarships

How to use the Program Plan:

Tuuum est! This Program Plan is designed to help shape your UBC experience, challenge yourself to try new things, and become the person and scholar you want to be to help make your time at UBC Okanagan yours. The Program Plan offers suggestions - you don’t have to do it all!

The Program Plan includes four categories:

- Explore the Specialization: Explore what you’ll be studying and learning. Make connections between your program and future career or education opportunities and goals.
- Connect and Build Community: Making connections will help develop your support network throughout your studies and beyond.
- Engage Locally and Globally: Get ready for life beyond UBC by accessing programming and resources aligned with your goals, interests, and career pathways.
- Develop Skills and Gain Relevant Experience: Expand your capacity to understand the changing world and embrace different perspectives by seeking out new experiences and opportunities.

Undergraduate Programs and Admissions: you.ubc.ca
Develop Interests and Broaden Perspectives: Get more involved and build your skills and connections.

Build your network by participating in the [UBC Mentorship program](https://www.ubc.ca/mentorship) to develop impactful relationships with industry professionals and other students. Branch out, get involved in student life, and have fun by joining an [engineering club](https://www.ubc.ca/engineering/clubs) or association like the [Engineering Society at UBCO](https://www.ubc.ca/engineering/society) or another Student Union Okanagan (SUO) student association to meet peers and participate in events and activities. Attend the [School of Engineering Industry Nights](https://engineering.ubc.ca/) to network with local industry partners. 

Connect your experiences

Whether you're new-to-UBCO or nearing graduation, reflect on the questions below to help connect your values, interests, and education to your future career or personal goals. Practicing reflection can help deepen your learning, strengthen your connections, and encourage life-long learning. These reflection questions are meant to help you build a UBC Okanagan experience that is unique to you.

- What are you hoping to learn as you progress through your degree?
- What kind of career are you interested in after completing your degree?
- How will the skills and knowledge you acquire during your studies help you in your career after graduation?
- What relationships and experiences are you hoping to gain from your time at university?

Use the Program Plan regularly throughout your time at UBC to build an experience that is fulfilling and rewarding.

Getting Started: Explore new opportunities and interests.

Explore high-impact, “learn-by-doing” experiences that take your education beyond the classroom. Whether on- or off-campus, paid or volunteer, participating in directed experiences and focused reflection helps to increase knowledge, develop skills, clarify values, and build your capacity to contribute to your communities. 

Connect with new people and get involved with the campus community using the [Events Calendar](https://www.ubc.ca/calendar). Meet a Student Connector at [Student Connect](https://www.ubc.ca/studentconnect) for help with navigating campus and to learn more about the opportunities available at UBC Okanagan. Follow @UBCOSu on [Instagram](https://www.instagram.com) for campus tips, opportunities, and event updates.

Attend a Heat Varsity Athletics game. Admission is free with your student UBC Card.

Immersive Experiences: Take part in unique opportunities and programs. Find ways to immerse yourself in your experiences.

Explore professional associations such as [Engineers and Geoscientists BC](https://www.egbc.org) for more information about potential careers, networking and professional development opportunities, and more.

Give back to the campus community by volunteering or applying to work on campus: [Student & Alumni Job Board](https://www.ubc.ca/jobboard).

Engage with your community in a meaningful way and help to create social change by participating in the [Community Service Learning program](https://www.ubc.ca/communityservicelearning).

Create your own student association, study group, or social club to connect with peers.

Learn about UBCO's commitments to [Truth and Reconciliation and Indigenous initiatives](https://www.ubc.ca/truthandreconciliation). Explore [course options and electives](https://www.ubc.ca/programoptions) that broaden your own perspectives and worldviews.

Learn about programs and supports available through the [Equity & Inclusion Office](https://www.ubc.ca/equityandinclusion).

Participate in cross-cultural initiatives organized by the [Global Engagement Office (GEO)](https://www.ubc.ca/globalengagement) to increase cultural awareness and grow professionally. 

Get involved with Student Union Okanagan (SUO) resource groups:

- [Indigenous Peoples Collective (IPC)](https://www.ubc.ca/studentunions/indigenouspeoplescollective)
- [Peer Support Network (PSN)](https://www.ubc.ca/studentunions/peersupportnetwork)
- [Pride Resource Centre (PRC)](https://www.ubc.ca/studentunions/prideresourcercentre)
- [Women's Resource Centre (WRC)](https://www.ubc.ca/studentunions/womensresourcercentre)
- [Sex Positivity Centre (SPC)](https://www.ubc.ca/studentunions/sexpositivitycentre)

Apply to the [Professional Activities Fund (PAF)](https://www.ubc.ca/studentunions/professionalactivitiesfund) or the [Tuum Est Initiative Fund](https://www.ubc.ca/studentunions/tuumest) for funding support to attend a conference, find a student-led program, or represent UBC Okanagan at an academic competition.

Find [other work opportunities](https://www.ubc.ca/jobboard) or apply to the [co-op program](https://www.ubc.ca/soe/academic-development-co-op) to strengthen your resume.

Summarize and organize your academic and out-of-classroom experiences and accomplishments in a resume, CV, or portfolio using the available [resources](https://www.ubc.ca/studentunions/resources) or help from the [Academic & Career Development team](https://www.ubc.ca/studentunions/academiccareerdevelopment).

Gain leadership experience by running for an executive position in a student association or the Student Union Okanagan (SUO).