

Biomedical Engineering Technology

Diploma Full-time [School of Health Sciences](#)

Overview

Biomedical engineering applies science and engineering to healthcare and medical device industries. Our grads maintain specialized medical equipment that is used to support patient care or help develop new medical devices and products.

Delivery: in person. [See details.](#)

[BCIT Biomedical Engineering Technology](#)

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About the program

The BCIT Biomedical Engineering Technology program is the only one of its kind offered in BC and the only one in Canada that is specifically targeted to both hospital and medical device industries. Our students have access to BCIT's extensive array of health technology equipment, which prepares them for the workforce as soon as they graduate.

- Two-year, full-time Diploma program
- Lectures, labs, [research, and design projects](#) [\[YouTube link\]](#) [\[2\]](#) deliver a strong foundation of knowledge
- A five-week practicum and field trips give you hands-on learning in the work environment

Want to learn more about BCIT's Biomedical Engineering Technology program? Visit [Program Details](#).

Who it's for

This program is for individuals who:

- Have a high school diploma or higher level of education
- Enjoy working with people and teams in the healthcare industry
- Are curious about how things work from a technological and design perspective
- Want to develop their creative thinking and problem-solving skills

Our program is in demand. See [Entrance Requirements](#) [\[3\]](#) to find out if biomedical engineering is right for you.

What grads can do

Our Biomedical Engineering Technology program has a reputation among grads for launching careers. See [Graduating and Jobs](#) [\[4\]](#) for opportunities.

[Inside BCIT: Meet Anthony Chan Program Head, Biomedical Engineering Technology Program SOHS](#)

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Entrance Requirements

Note: In alignment with public health orders, this program requires that students be vaccinated for a number of communicable diseases – including COVID-19.

Application processing

Open to applications beginning October 1st (or next business day).

Indigenous applicants: This program is committed to the recruitment and retention of Indigenous applicants. To support applicants, a dedicated Indigenous admissions process was established and one dedicated seat per intake is reserved for Indigenous students.

To be considered under this admission category, applicants must:

1. Self-identify as an Indigenous person of Canada on the admission application
2. Have successfully completed the program's entrance requirements.

Our program also works closely with Indigenous services at BCIT to ensure students receive the best possible support and encouragement while in the program. Please visit [Indigenous Initiatives \[6\]](#) for more information on available resources.

Entrance requirements

This program has a two-step admission process. Applicants must meet all entrance requirements and will be accepted on a first-qualified basis as long as space remains.

Step 1: Meet the following entrance requirements

- **English language proficiency:** [Category 2 \[7\]](#) – English Studies 12 (67%) or equivalent
- **Math*: one** of the following (or equivalent):
 - Pre-Calculus 12 (67%) or
 - [MATH 0001 \[8\]](#) – Technical Mathematics – BCIT (67%) or
 - [MATH 0120 \[9\]](#) – Math 12 Competency Test – BCIT (67%) or
 - [Other acceptable BC and Yukon courses \[10\]](#) or
 - 3.0 credits of post-secondary math (linear algebra, pre-calculus, or calculus) at 100 level or higher (67%) from a [recognized institution \[11\]](#)
- **Chemistry: one** of the following (or equivalent):
 - Chemistry 11 (67%) or
 - Chemistry 12 (67%) or
 - [CHEM 0110 \[12\]](#) – Chemistry 11 Challenge Exam – BCIT (67%) or
 - [CHEM 0120 \[13\]](#) – Chemistry 12 Challenge Exam – BCIT (67%) or
 - 3.0 credits of post-secondary chemistry (67%) from a [recognized institution \[14\]](#)
- **Physics: one** of the following (or equivalent):
 - Physics 12 (67%) or
 - [PHYS 0312 \[15\]](#) – Technology Entry Physics 2 – BCIT (67%) or
 - [PHYS 0120 \[16\]](#) – Physics 12 Challenge Exam – BCIT (67%) or
 - 3.0 credits of post-secondary physics (67%) from a [recognized institution \[17\]](#)
- **Complete the following forms for submission with your online application:**
 - [Physical Requirements Form \[PDF\] \[18\]](#): To acknowledge the nature of this training and the physically demanding nature of this work.
 - [Mandatory Applicant Questionnaire \[PDF\] \[19\]](#)

***Note:** Foundations of Mathematics 12 is not acceptable.

[Read more about how to meet BCIT's entrance requirements \[20\]](#)

Step 2: Conditionally selected applicants

If you are selected for admission to the program, you will be requested to complete:

- [Criminal Record Check \[PDF\] \[21\]](#): As per the requirements of the British Columbia Criminal Records Review Act, post-secondary students who engage with children and/or vulnerable adults as part of a practicum must undergo a criminal record check.
- [Immunization Review \[PDF\] \[22\]](#): Submit your immunization review form to [Student Health Services \[23\]](#). Immunization is a mandatory requirement for this program. For instructions and more information, visit Student Health Services' [Health Science Student Information \[24\]](#).
- **Mandatory BMET Program Admission Forum:** Attend one of the Mandatory BMET Program Admission Forums before September. This provides an opportunity to learn about the curriculum, potential career paths, meet faculty and current students, tour lab facilities, and have your questions addressed prior to the start of the term.

Once these and any other outstanding conditions have been met, you will receive notification of your full acceptance.

Clinical requirements

Note: Effective immediately, all health care workers who come into contact with patients at publicly-funded health care facilities or in the community, including at long-term-care facilities, will have to get the influenza vaccine or wear a mask during flu season. This policy affects all students who will be entering a clinical setting.

As such, you will be required to provide proof of your immunization or agree to wear a mask at all times through the flu season prior to being placed in your clinical studies.

Face Respirator Fit Testing

A face piece respiratory fit test is required before students are permitted to enter the clinical practicum. Upon successful completion of the fit test, the original certificate must be presented to the program and annual re-fitting is required. Students are expected to carry their certificate with them at all times during their practicum.

For the respirator fit testing, testing with a N95 respirator (1860, 1860s or 1870) is required and must be performed in accordance with CSA Standard CAN/CSA-Z94.4-02. Fit testing must also include inspection, cleaning, maintenance, and storage of protective equipment. Students will be given specific instructions in preparation for their fit testing by the provider they choose.

Recommended for success

It is strongly recommended that applicants have basic computer skills in Windows operating systems and creating documents and worksheets in word processing and spreadsheet programs such as MS Word and Excel.

International applicants

This program is available to international applicants. A valid [study permit \[25\]](#) is required prior to starting the program.

Students enrolled in this program must complete the mandatory work component to qualify for graduation. A co-op work permit is required prior to starting the work component.

Apply to program

To submit your application:

- Include proof of meeting all entrance requirements.
- Convert all transcripts and supporting documents to [PDF files \[26\]](#).
- Have a credit card ready to pay the application fee.

[Learn more about how to apply \[28\]](#)

Scheduled Intakes

September each year.

Technology entry

The [Technology Entry \(TE\) \[29\]](#) program is a full-time, day school program which provides academic upgrading to students wishing to enroll in Computing, Engineering, Electronic, and Health Sciences programs at BCIT.

The TE program provides courses in chemistry, communication, mathematics, and physics that meet program prerequisites for selected programs at BCIT. The TE program also includes an introductory course in computer applications and a learning skills course. The program is supportive to those who require English-language training.

myCommunication

Within two business days of submitting your completed application, BCIT will send a message to your personal and myBCIT email addresses. All correspondence regarding your application will be posted to your online [myCommunication \[30\]](#) account at [my.bcit.ca \[31\]](#). We will send you an email when a new message is posted. It is important to watch for these emails or regularly check your account online.

You can expect to receive communication concerning the status of your application within four weeks.

Advanced Placement

Conditions

You may be eligible to apply to an advanced level of the program through either [re-admission](#) or [direct entry](#). Please note that applications are considered based on:

- **Complete applications:** you must show proof that you have completed (or are registered in) all requirements to be considered.
- **Competitive entry:** if the number of applicants exceeds available seats, BCIT will accept those deemed to have the best opportunity for success.
- **Seat availability:** confirmation may not be available until approximately one week before the term begins.

Re-admission

You can apply for re-admission if you:

- were previously admitted to this program and completed part of it at BCIT and
- want to re-enter the program at an advanced level.

View the Re-admission Process and Guidelines

1. Review the letter sent to you by Student Records at [myBCIT \[32\]](#). This letter will indicate whether you are required/eligible to apply for re-admission at this time. Alternatively, you may wish to contact the Program Head

for more information about re-applying.

2. If eligible, apply online for re-admission. Be prepared to pay the application fee. It is recommended that you submit your application for re-admission at least one term prior to your anticipated re-admission date.
3. Re-admission is conditional on your successful implementation of a plan resolving previous academic difficulties. The applicant is responsible for submitting such a plan in writing to the Program Head at the time of application, and for carrying out the plan to the satisfaction of the program. Allow sufficient time between submission and the start of term to allow for satisfactory implementation of the plan.
4. Applicants who have failed a term or any course more than once, or have failed more than one term in the program, are not ordinarily re-admitted.
5. You may be required to repeat and successfully complete courses that have undergone a significant curriculum change, or courses that were taken more than three years previously. This may include courses for which transfer credits were previously granted. You may be required to adhere to a performance contract with the department.
6. You will not be permitted to take any courses more than one level higher than your current level of study in the program (i.e. you may not take a level 4 course if you have an outstanding level 2 course.).

Applications are accepted throughout the year.

Submit the [Technology Re-admission Form \[PDF\]](#) [33] with your online application.

Ready to submit your application? [Apply now](#) [34].

Direct entry

You can apply for direct entry if you:

- are a new applicant to this program but already completed an equivalent part of it at BCIT or elsewhere and
- want to apply to an advanced level.

BCIT accepts complete applications from:

- February 1st* to October 31st* for level 2 (January start)
- October 1st* to March 31st* for level 3 (September start)

*or next business day

Submit the following with your online application:

- Proof of meeting all general [entrance requirements](#) [35] (Steps 1 to 3; note that direct entry applicants are **not** required to attend a BMET Program Information Session)
- [Course-by-Course Self-Assessment Form \[PDF\]](#) [36] showing that you have completed (or are registered in) all [courses](#) [37] in the preceding level(s) (or equivalents*)
- Official transcripts** and course outlines for all previous education
- Resume, outlining previous education and work experience

*Details provided for equivalent courses must outline course descriptions, learning outcomes, and topics covered. Generally, to qualify for credit, the equivalent course(s) must have been completed within five years with a minimum of 65%, and have 80% or more commonality in the topics covered at a level that is comparable or higher. **If relevant education was completed more than five years ago, substantial related work experience is required.** On your resume, provide an explanation of how your work experience relates to the courses in the preceding level(s).

**Applicants who completed post-secondary studies outside of Canada, United States, United Kingdom, Australia or New Zealand will require a comprehensive evaluation of their credentials by the [International Credential Evaluation Service](#) [38] (ICES). Credential evaluation reports from other [Canadian services](#) [39] may be considered. These reports must include course-by-course evaluations and GPA calculations.

Ready to submit your application? [Apply now](#) [40].

Direct entry FAQs

- **When should I apply?**

It is recommended that you apply when you have met all of the entrance requirements. If you are currently registered in a course, please indicate this on the self-assessment form.

- **What if I don't receive credit for all courses in the preceding term?**

The program may suggest BCIT flexible learning (part-time studies) courses that need to be completed prior to term start. In some circumstances, the program may identify courses that can be taken concurrently. Most students are required to make up one or more courses.

Can I appeal the assessment of equivalency?

You may appeal in writing. Be prepared to supply additional information or clarification to your original submission. You have 10 days to accept or appeal (in writing) the 'Second Assessment' that you receive by email.

- **What will happen if I cannot complete all required courses before the term starts?**

All courses must be completed prior to term start unless the program has identified a course that can be taken concurrently or that can be deferred until a later term.

- **When will I be accepted?**

Once your application has been assessed and has been approved for direct entry, a seat must become available in the program you have selected. The Admissions department must wait until the current students obtain their final grades in either December or May to determine how many seats will become available for direct entry applicants.

- **What do I do if I have already completed a level 2 or 3 course?**

If you have already completed a course either at another institution or through flexible learning (part-time studies) at BCIT, you must apply for course credit/exemption as soon as you have been accepted to the program. You should attend classes until you receive formal written notice that you have been granted course credit. Please note that this will not reduce your tuition fees.

- **When will I get my timetable?**

Print your timetable one day prior to class start by logging into my.bcit.ca [41] and going to Student Self-Service. You must be registered in your courses in order to access this feature.

- **When can I buy my books?**

It is recommended that you wait until the first week of classes before buying textbooks. Your instructors will tell you which books to buy.

To register for a Flexible Learning (Part-time Studies) course, visit [Register for Flexible Learning courses](#) [42] or contact [Student Information and Enrolment Services](#) [43].

Still have questions? Review the [Admissions FAQ \[44\]](#) or contact [Program Advising \[45\]](#).

Costs & Supplies

Tuition fees

Use our [tuition estimator \[46\]](#) to find tuition and fees for this program.

For more information on full-time tuition and fees, visit:

- [Full-Time Studies Tuition & Fees \[47\]](#)
- [International Tuition & Fees \[48\]](#)

Books & supplies

Level 1: \$1,960 (including laptop computer)

Level 2: \$950

Level 3: \$1,200

Level 4: \$1,050

(general estimated cost, subject to change)

Face respirator fit testing: approx. \$25 per year, annual re-fitting required.

Plus additional cost of travel and accommodation if practicum takes place outside the Greater Vancouver area.

Financial assistance

Financial assistance may be available for this program. For more information, please contact [Student Financial Aid and Awards \[49\]](#).

Courses

Note: The Biomedical Engineering Technology program curriculum has been revised effective for all intakes starting in or after September 2019.

Students that began the program prior to September 2019 refer to the [September 2018 \(and prior\) matrix \[PDF\] \[50\]](#).

Program matrix

Level 1 (15 weeks)		Credits
BHSC 1101	Anatomy and Physiology 1 (BMET)	4.0
BMET 1100	Electronics Principles and Practice 1	8.0
COMM 1178	Technical Communication 1 for Biomedical Engineering Technology	3.0
COMP 1120	Introduction to Computer Architecture and Configuration	4.0
MATH 1781	Technical Math for Biomedical Engineering	7.0
PHYS 1178	Physics for Biomedical Engineering Technology	4.0

Level 2A (15 weeks)			Credits
BHSC 2201	Anatomy and Physiology 2 (BMET)		3.0
BMET 2200	Electronics Principles and Practice 2		7.0
BMET 2205	Biomedical Computer Networks and Data Communication		5.0
BMET 2215	Digital Electronics		5.0
COMM 2278	Technical Communication 2 for Biomedical Engineering Technology		2.0
COMP 3152	Software Engineering		3.0
MATH 2782	Calculus for Biomedical Engineering		5.0
Level 2B (5 weeks)			Credits
BMET 2210	Electrical Skills Workshop for Biomedical Engineering Technology		1.5
BMET 2220	Mechanical Skills Workshop for Biomedical Engineering Technology		1.5
BMET 2225	Practical Skills in Biomedical Engineering Technology		1.5
BMET 2230	Biomedical Engineering Technology Seminars		1.0
BMET 2235	Investigations in Biomedical Engineering Technology		3.0
Level 3 (15 weeks)			Credits
BMET 3300	Electronics Principles and Practice 3		6.0
BMET 3301	Biomedical Devices Technology 1		6.0
BMET 3302	Medical Device Standards		6.0
BMET 3305	Computer Network Applications in Healthcare		3.0
BMET 3315	Microcontrollers and Embedded Systems		5.0
CHEM 1205	General and Organic Chemistry for Biomedical Engineering		5.0
Level 4A (15 weeks)			Credits
BMET 4401	Biomedical Devices Technology 2		7.0
BMET 4402	Biomedical Engineering Technology Project		4.0
BMET 4403	Medical Imaging Systems		5.0
CHEM 2305	Biochemistry/Instrumental Analysis		5.0
COMM 3478	Technical Communication 3 for Biomedical Engineering Technology		1.0
ELEX 4855	Electronic Image Displays		4.0

HSIP 1000	Health Sciences Interprofessional Patient Care	2.0
MATH 3782	Statistics for Biomedical Engineering	2.0
Level 4B (5 weeks)		Credits
BMET 4420	Practical Experience in Biomedical Engineering Technology	7.0
Total Credits:		136.5

Note: Students cannot take any courses more than one level higher than their current level of study in the program (e.g., students cannot take a level 4 course with an outstanding level 2 course).

Transfer credit

Do you have credits from another BC/Yukon post-secondary school? Do you want to know if they transfer to courses here at BCIT? Check out BCIT's [Transfer Equivalency Database \[84\]](#) to find out.

Program Details

This program prepares individuals who are interested in technology and health sciences to enter a challenging career in biomedical engineering.

The program graduates biomedical engineering technologists with the ability to participate in the development and application of technology in medicine and biology. Graduates work closely with biomedical engineers and technologists, physicians, and others who use, manage, maintain, design, manufacture, and supply scientific and medical equipment.

The program provides education and training in the following subject areas: technical communication, algebra, calculus, statistics, basic bio- and analytical chemistry, human anatomy and physiology, biophysics, electricity and electronics, digital techniques and microprocessor applications. Building on this fundamental knowledge, the curriculum provides practical understanding in the principles, operations, and design of medical diagnostic and therapeutic devices and systems (examples: patient monitoring network, cardiac defibrillators, clinical laboratory analyzers, and medical imaging systems). Medical device-related standards and protocols, research and design methodologies, technology life-cycle management strategies, safe clinical practices, and performance assurance testing procedures and troubleshooting techniques are all studied and practiced in this program. At the end of their second year, each student spends five weeks in supervised training in a hospital, research agency, or medical equipment provider.

The program provides hands-on laboratory experience throughout, and trains students in engineering problem-solving methodology to allow them to upgrade and maintain their knowledge.

BCIT recommends membership in the Canadian Medical and Biological Engineering Society (CMBES) and the Applied Science Technologists and Technicians of British Columbia (ASTTBC).

Simon Cox Student Design Competition

The Simon Cox Student Design Competition is an annual event brings together students from BC universities and colleges to create innovative assistive technology and home automation solutions for people with disabilities.

Check out some recent capstone projects entered into the competition by BCIT's Biomedical Engineering Technology students:

Proximeter (award winner)

[Simon Cox entry – Proximeter](#)
[85]

Swift-Lift

[BCIT Biomedical Engineering Technology 2023: Swift-Lift](#)
[86]

Honey Pusher

[Honey Pusher Video](#)
[87]

Watch previous project videos on the [BMET student projects YouTube playlist](#) [88].

Program length

Two years, full-time beginning in September each year.

Accreditation

Graduates are eligible for registration as Applied Science Technologists (AScT) through [ASTTBC](#) [89] after two years of relevant work experience following graduation.

Program delivery

In person: This program is delivered on campus.

Program location

[Burnaby Campus](#) [90]
3700 Willingdon Avenue
Burnaby, BC

Graduating & Jobs

Our graduates get work

Every hospital and clinic needs biomedical engineering technologists to keep life-saving machines functioning at their best. Biomedical engineering professionals develop new medical devices and products to diagnose and treat patients. Work opportunities are dynamic and diverse, with room for advancement and flexibility.

Career opportunities

Creative. Innovative. Skilled. Biomedical engineering technology grads have numerous options. From hospitals, technical support, sales, operations, design, and innovation, grads can choose the field that best suits their skills and passion.

Entry-level positions, such as a hospital biomedical engineering technologist, start at salaries of approximately \$74,000 in the public sector.

Grads can work in a variety of areas including:

- Service and support in hospitals, laboratories, and private clinics
- Medical equipment field service
- Research, development, and product innovation
- Technology support and training
- Medical product sales and marketing

Keep learning

Grads can complete degrees in engineering, business, and technology management. They qualify to join professional associations like the Canadian Medical and Biological Engineering Society ([CMBES](#)) [\[91\]](#) and the Applied Science Technologists and Technicians of British Columbia ([ASTTBC](#)) [\[92\]](#).

Graduate listing

Please check our list of [Biomedical Engineering graduates](#) [\[93\]](#), searchable by graduate year.

Graduate employment outcomes

The BCIT student outcomes report presents summary findings from the annual survey of former students administered by BC Stats one to two years after graduation. These reports combine the last three years of available results for the 2021-2023 BCIT Outcomes Surveys of 2020-2022 graduates and for Degree 2019-2021 graduates. The reports are organized into three-page summaries containing information on graduates' labour market experiences and opinions regarding their education. More detailed information can be accessed at the [BC Student Outcomes](#) [\[94\]](#) website.

To view these results, you may need to have the [Adobe Acrobat Reader](#) [\[95\]](#) installed in your Web browser.

- [Biomedical Engineering Technology](#) [\[96\]](#)

Faculty, Advisors & Staff

Anthony Chan

PhD, PEng, CEng, CCE
Program Head, Biomedical Engineering,
School of Health Sciences
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More about Anthony Chan

Work experience

Dr. Anthony Chan has been a faculty member of the British Columbia Institute of Technology since 1992 and is currently the Program Head of the Biomedical Engineering Technology Program in the School of Health Sciences. He is also a teaching faculty and Adjunct Professor of the School of Biomedical Engineering at the University of British Columbia. Prior to joining BCIT, Anthony was the Director of Biomedical Engineering at the Royal Inland Hospital in Kamloops, B.C., Canada and the Consultant and Manager of the Biomedical Engineering Departments at the Burnaby and Lion's Gate Hospitals in Vancouver. Anthony is a Professional Engineer (Canada), Chartered Engineer (UK), Certified Clinical Engineer (Canada), fellow of CMBES, fellow of EIC, life senior member of IEEE, member of IET, and corporate member of HKIE.

Education

Anthony graduated in Electrical Engineering (B.Sc. honors) from the University of Hong Kong and completed his M.Sc. in Computer Engineering from the same University. He completed a master's degree (M.Eng.) in Clinical Engineering and a Ph.D. in Biomedical Engineering from the University of British Columbia, Canada. He also holds a Certificate in Health Services Management from the Canadian College of Health Leaders.

Publications

Anthony has research interest in assistive technology, medical device development, and healthcare technology management. He has been invited to give lectures at universities, speak at technical meetings, and as plenary speakers at international conferences and symposia. In addition to peer-reviewed journal paper and conference proceeding publications, Anthony is the author of two books – “Medical Technology Management Practice” (2003) and “Biomedical Device Technology: Principles and Design” (3rd ed. 2023, 2nd ed. 2016, 1st ed. 2008).

Other

Anthony was nominated and received the “Outstanding Canadian Biomedical Engineer Award” in 2007 from the Canadian Medical and Biological Engineering Society (CMBES) for outstanding contributions to the field of biomedical engineering. Anthony was also the recipient of the 2009 BCIT Alumni Association's “Excellence in Teaching and Research Award” for making a tangible difference in helping BCIT to produce exceptional graduates and has enhanced BCIT's world class reputation. In 2015, he was recognized and awarded fellow of CMBES for his exceptional record of accomplishments and service to biomedical engineering and bringing significant value to the Society and the profession. In 2023, he was inducted as Fellow of the Engineering Institute of Canada (EIC), in recognition of excellent in engineering and services to the profession and to society. He is a founding board of director of “Technology for Living”, a non-profit organization providing technology and support for people with disabilities to live independently.

Mohammed Alnaeb (on leave)

DipT (BME), BTECH (Electronics)

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More about Mohammed Alnaeb

Work experience

With 5 years of experience in the healthcare environment. Mohammed has worked in several Biomedical engineering departments through lower mainland hospitals, worked in a private medical imaging company, and as an equipment coordinator for the Royal Columbian Hospital redevelopment project.

Mohammed's responsibilities encounter the medical equipment through its different life cycle stages including assisting clinical leads in selecting the optimal equipment that meets their clinical needs, procuring various types of medical equipment, maintaining and repairing it, and retiring it as hospital assets.

His duties at BCIT include teaching medical imaging lab sessions and assisting students through their graduation projects.

Education

Mohammed is a graduate of the BCIT Biomedical Engineering Technology Program (2015), and a graduate from BCIT Bachelor of Technology (Electronics) Program (2020).

Jochen Boehm

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More about Jochen Boehm

Work experience

Jochen is a Professional Engineer (P.Eng.) with 23 years experience in the world of Clinical/Biomedical Engineering. After several temporary engagements as Clinical Engineer in local Biomedical Engineering departments he joined Xillix Technologies Corp. in 1993 and Novadaq Technologies in 2006. Within these companies, Jochen's responsibilities ranged from Customer Service, Design Maintenance, Engineering Operations, to Quality Assurance and Project Management.

Education

Jochen received his B.A.Sc. (Engineering Physics, 1985) and his M.Eng. (Clinical Engineering, 1987) degrees from the University of British Columbia.

Special interests

- Teaching
- Software development and database applications
- Quality management systems

Ginny Foo

DipT (BMET), BSc, ASCT, PMP-certified through MOT-MBA degree
Instructor,
School of Health Sciences
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More about Ginny Foo

Work experience

Ginny joined the faculty of Biomedical Engineering Technology in 2012 as an Assistant Instructor, then went back to work in the industry in 2015 doing equipment planning for various lower mainland health authorities. Notable projects: BC Children's Women's Hospital Phase 3 & RCH Redevelopment Phase 2. Prior to BCIT, Ginny worked as a technologist at PHC- St. Paul's Hospital and received many factory-level service trainings during her career in the hospital. She has 5 years knowledge in the dialysis machine specialty and 7 years in the perfusion/ OR/ anaesthesia/ equipment specialty. Ginny's interest is keeping the workshop neat and tidy, while ensuring that the tools and equipment are all in good working order.

Jenny Jin

DipT (BME), Master in Electronics, Bachelor in BME
Instructor,
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More about Jenny Jin

Work experience Jenny Jin joined the faculty of the Biomedical Engineering Technology Program in 2015. Her teaching duties at BCIT include Medical Computer Networks and Data Communications, and Electronics. Prior to BCIT, Jenny worked as a Biomedical Engineering technologist at Vancouver General Hospital and received many factory-level service trainings during her career in the hospital. Before Jenny moved to Canada, she was an instructor in Tianjin University, teaching Signal and System Analysis; she was also a Biomedical Engineer researching and developing Medical laser systems.

Education

Jenny received her Master's degree of Physical Electronics and her Bachelor's degree of Biomedical Engineering from Tianjin University in China. She also graduated from BCIT Biomedical Engineering Technology program.

Alexander Sayer

BTech (Electronics), DipT (BME)
Instructor,
School of Health Sciences
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More about Alexander Sayer

Work experience

Alex is an Engineer in Training (EIT) with 10 years experience in Biomedical Engineering. After graduating from BCIT's Biomedical Engineering Diploma of Technology in 2012 he worked for the Lower Mainland Biomedical Engineering department at St. Paul's, Royal Columbian and Vancouver General Hospitals. His responsibilities included the maintenance, repair and troubleshooting on a wide variety of biomedical and electronic equipment for which he has received factory level training.

At Royal Columbian Hospital he was on the surgical team responding to stat trouble calls on Anaesthetic Machines, Patient Monitors and Electrosurgical units in the Operating Rooms. At Vancouver General he is a member of the Hyperbaric operator team assisting with the administration of hyperbaric oxygen treatment for both acute and chronic conditions.

Education

Alex received his Diploma of Technology In Biomedical Engineering in 2012, and a Bachelor of Technology in Electronics from BCIT in 2017.

Majid Shokoufi (on leave)

PhD (BME)

Instructor,

School of Health Sciences

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More about Majid Shokoufi

Work experience Dr. Majid Shokoufi joined as a faculty member of the British Columbia Institute of Technology in 2020. Before joining BCIT, he was CTO of OptiCan Systems Inc. and a postdoctoral research fellow at Simon Fraser University where he led a team to design, develop, and validate a novel optical technology for early detection of breast cancer (DOB-Scan probe). The outcomes of his research have been presented and published in several conferences and journal papers and the ideas of DOB-Scan and its related algorithms have been filed for a US Patent in January 2018. Along with his academic role, Dr. Shokoufi has also collaborated with several companies in several healthcare-related projects such as developing a novel wearable health care monitoring device for the elderly, and self-balancing robotic exoskeleton as a technical lead and consultant. Since the biomedical engineering field is a multidisciplinary area, he has established strong collaborations with his peers in this research field as well as private sectors including BC Cancer Vancouver, Abbotsford and Surrey branches, Jim Pattison Outpatient Care and Surgery Centre, and iCord. This helps him to establish effective collaboration between the school and industries. He also founded his own company Electron Engineering Ltd. in 2004 where his team designed, developed, and commercialized several sophisticated industrial equipment such as UV-VIS-NIR spectrophotometers, laser-based interactive board.

Besides his research, he was a full-time lecturer at Azad University for over 6 years and a teacher assistant at SFU which provided an unparalleled opportunity to develop his skills as a teacher and mentor. He has taught courses for electrical engineering majors including electric circuits I and II, microprocessors, embedded systems, electric measurement, electronic circuits I and II, pulse circuits, engineering mathematics, wireless communication, and biomedical imaging systems including X-Ray, Ultrasound, CT-Scan, PET Scan, and MIR.

Education

Dr. Majid Shokoufi has received his bachelor's degree in Electrical Engineering from Amir Kabir University and his Master's degrees in electronic circuit design from IUST. He then received his Ph.D. in 2017 from Simon Fraser University in Biomedical Engineering – specializing in Biophotonics and cancer diagnosis.

Quang Vo

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More about Quang Vo

Work experience

Prior to joining BCIT, Quang Vo was a full-time Biomedical Engineering lecturer at the Ho Chi Minh City University of Technology (National University) for five years. His major courses included Medical Imaging, Sensors and Measurements, Medical Devices, Biomedical Engineering laboratory and Physics Laboratory. He also supervised students to do their projects. Before that, he was employed by the Children's Hospital 1 as a Biomedical Engineer and was then appointed as the Manager of Biomedical Engineering Unit for over ten years. His responsibilities included the repair, maintenance, management, and troubleshooting on a wide variety of biomedical and electronic devices. During this employment, he received advanced and factory-level training in the field and worked in Denmark at various companies, schools, and hospitals including Rigshospitalet (Denmark's leading specialized hospital). His PhD study provided him with opportunities to mentor students, to work with different diagnostic imaging modalities and to collaborate with clinicians and staff at the Glenrose Rehabilitation Hospital and Stollery Children's Hospital. He is currently an Engineer in Training with APEGA.

In addition to teaching, Quang Vo is also interested in research. One of his primary research interests involves developing a 3D ultrasound method to assess and monitor the true severity of adolescent idiopathic scoliosis and predict the progression of scoliosis. He published his research in international scientific journals and proceedings, one of which was awarded Open Finalist award by the IEEE Engineering in Medicine and Biology Society (USA).

Education

Quang Vo obtained his PhD degree in Biomedical Engineering from the University of Alberta. He also received his Master's degree in Laser Technology and Biomedical Engineering, and Bachelor's degree in Electrical Engineering from the Ho Chi Minh City University of Technology.

Nicky Land

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Advisory committee

Our Advisory Committee is made up of industry professionals from across Canada including:

- **Nikolai Dechev**, University of Victoria
- **Kris Dickie**, Clarius Mobile Health
- **Kelly Kobe**, Alberta Health Services
- **Pej Namshirin**, Vancouver General Hospital
- **Scott Nelson**, Northern Health Authority
- **Jason Ooi**, Siemens Healthineers
- **Carol Park**, Lower Mainland Biomedical Engineering
- **Justin Pezzin**, Niel Squire Society
- **Martin Poulin**, Island Health
- **Roy Sharplin**, Northern Alberta Institute of Technology
- **Sandra Swanson**, Providence Health Care
- **Justin Whyte**, GE Healthcare

Continuing Education

Graduates from the BCIT Biomedical Engineering Program may continue their education in one of the following pathways:

Bachelor of Technology Degree in Technology Management – BCIT School of Transportation; and Master of Technology MBA Degree – Simon Fraser University

This flexible learning (part-time) baccalaureate degree aims to expand professional knowledge, management skills and attributes for the roles as supervisors and managers in technical organizations.

Upon completion of the bachelor degree, Technology Management graduates can choose to enroll in the Simon Fraser University's Master of Technology (MOT) MBA program, and have the option to complete the degree in one year full-time, or two years part-time.

See entrance requirements and information on the [Program website \[97\]](#).

The Bachelor of Technology in Electronics, School of Energy, BCIT

This flexible learning (part-time) baccalaureate degree is eligible to BMET diploma graduates who wish to complete an engineering degree while working and to pursue registration as a Professional Engineer. Visit the [BTech Electronics program website \[98\]](#) for details.

The Bachelor of Engineering in Electrical Engineering at BCIT

The [BEng_\(Electrical\)_ \[99\]](#) is a four year BCIT program accredited by the Canadian Engineering Accreditation Board (CEAB). The program is designed to provide a pathway to registration as a Professional Engineer in BC. BMET Diploma graduate will have advanced placement in this program. Contact the [BCIT BMET Program Head](#) for more information.

Master Degrees (M.Eng., or M.A.Sc.) in Biomedical Engineering – Biomedical Engineering Graduate Program, University of British Columbia

BMET diploma graduates who have a bachelor degree are eligible to apply to enter the [UBC MEng_\(Biomedical\) or MASc_\(Biomedical Engineering\) Programs \[100\]](#).

Other Continuing Education Opportunities at BCIT

See [BCIT continuing education programs and courses \[101\]](#).

Contact Us

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