UNB
EST. 1785
UNIVERSITY OF NEW BRUNSWICK

ENGINEERING GRADUATE PROGRAMS



VIEWBOOK

LEADING DISCOVERY AND INNOVATION SINCE 1785.





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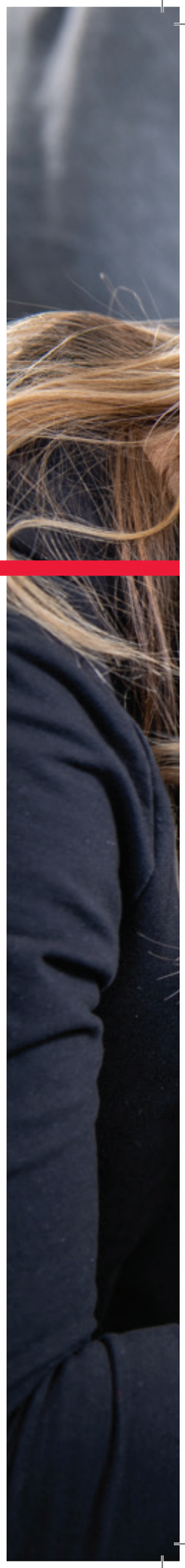
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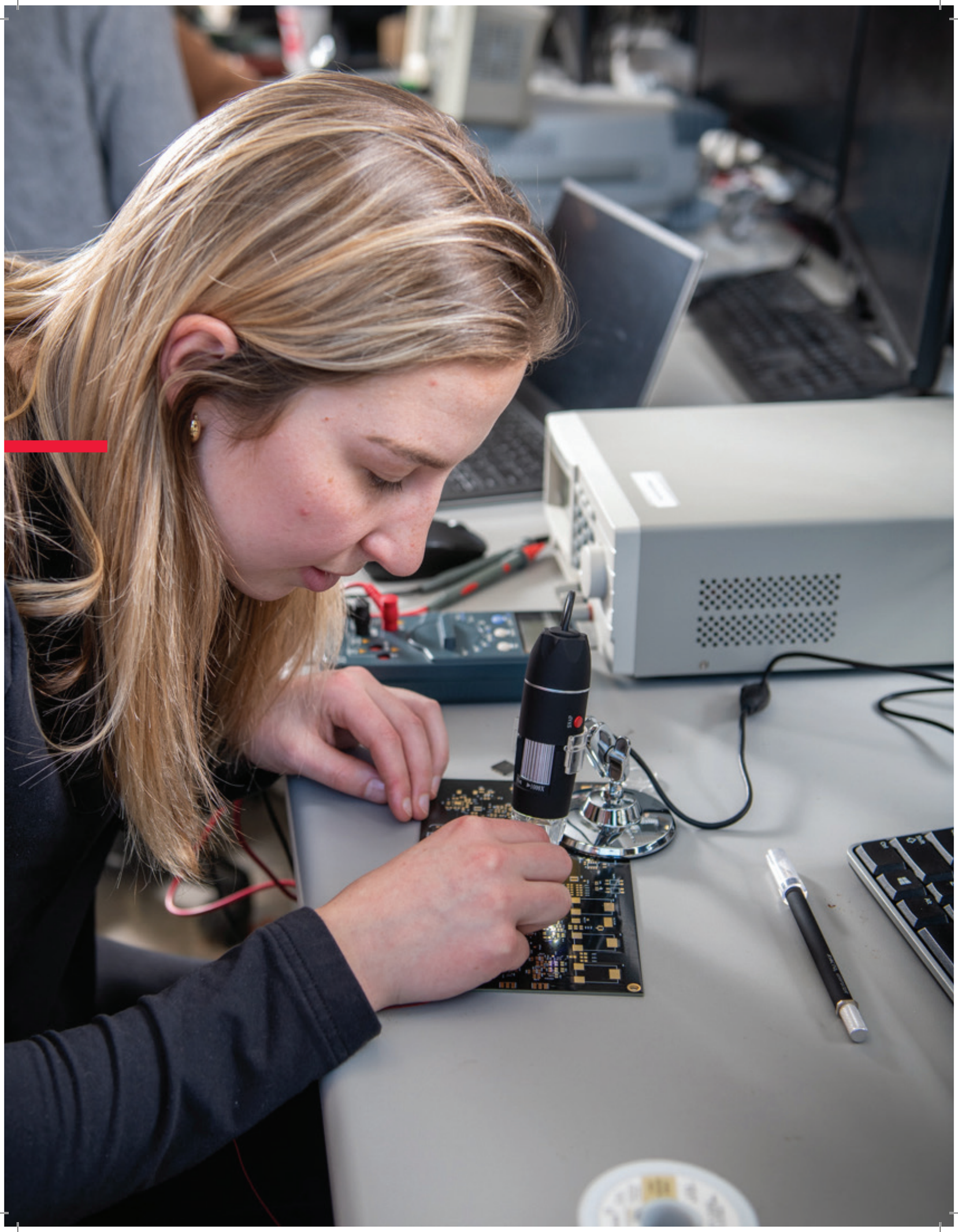
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YOUR FUTURE STARTS AT UNB ENGINE

As the oldest engineering program in Canada, UNB engineering has a proud legacy of excellence, innovation and leadership. If you're passionate about solving real-world problems, building a better future and making an impact through engineering — UNB is the place to start.

At UNB, you'll gain more than just a degree. You'll join a vibrant community of innovators, creators and future leaders. Our programs combine hands-on learning, cutting-edge research and real-world experience to give you the skills and confidence to thrive in today's evolving world. Whether you want to design sustainable energy solutions, build smarter technologies or engineer for social good — your ideas can come to life here.

You'll learn from professors who are not only experts in their fields but also passionate mentors. With 14% of our researchers ranking among the top 2% globally, you'll have the opportunity to study alongside some of the brightest minds in engineering. From day one, you'll have access to state-of-the-art labs, collaborative projects and connections with industry leaders.

At UNB engineering, we don't just prepare students for jobs, we prepare them to lead, to innovate and to shape the future of engineering.



ERING

ENGINEERING AT UNB:

A LEGACY OF INNOVATION

The University of New Brunswick's engineering faculty has a proud history that goes back to 1854, when the first lectures in engineering were offered under the encouragement of community leaders and funding from Lieutenant Governor Sir Edmund Head.

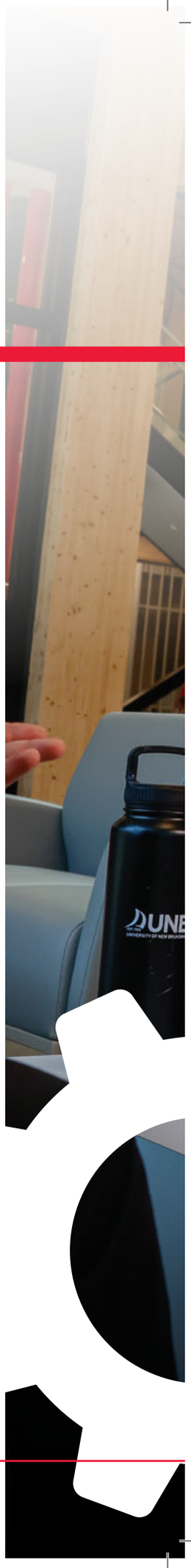
From humble beginnings, UNB engineering has grown into a modern and dynamic faculty. On May 27, 2025, it celebrated a significant milestone: the opening of the Allison D. McCain Commons, an 18,400-square-foot facility designed for collaboration, innovation, and learning. As the newest addition to the Head Hall complex, the Commons strengthens the faculty's infrastructure and provides a central hub where students, faculty and staff can come together.

UNB Engineering offers **3 types of degrees** (MEng, MScE, PhD) across **5 disciplines:** Civil, Chemical, Electrical, Geodesy and Geomatics, Mechanical; and three interdisciplinary degrees: Biomedical (MScE, PhD), Master of Engineering Leadership in Design Innovation (MELDI), and Master of Technology Management and Entrepreneurship (MTME). Graduate students have a broad, diverse, and comprehensive range of opportunities to choose from.

"Are you ready to discover where graduate studies in engineering at UNB can take you?"

DR. JOSHUA LEON P.ENG
Dean of Engineering

WHY UNB ENGINEERING?



Step into the rich legacy of research excellence and innovation that informs the University of New Brunswick's Faculty of Engineering.

At UNB Engineering you can advance knowledge, address societal challenges, strive for excellence, and have a significant impact on the world.

As one of Canada's top engineering schools, UNB Engineering is recognized for its high-level research and state-of-the-art facilities. It is funded with an estimated $17 million per year by public research councils, government organizations, and industrial partners.

Research is the very heart of what we do. It drives our curiosity and leads to innovation. Join a dynamic research community and turn ideas into real-world impact.

Our research embraces a wide range of disciplines and brings together expertise from chemical, civil, electrical, geodesy and geomatics, mechanical, and biomedical engineering. Graduate students work closely with faculty supervisors, research teams, and industry partners, to gain hands-on experience. You can contribute to meaningful advances in areas like renewable energy, smart infrastructure, advanced materials, aerospace engineering, data and AI, and biomedical innovation.

What sets UNB Engineering research apart is its collaborative environment. We support graduate students with strong mentorship, modern facilities, and interdisciplinary research centers that encourage learning across fields. Whether you work in a lab, run simulations, or collaborate with industry, you are part of a research community that values growth, teamwork, and innovation.

We provide support for your career to take off. Students present their work at conferences, publish in academic journals, and partner with organizations at the local, national, and international levels. From day one, graduate students are treated as researchers, not just learners.

We focus on innovation, impact, and student success to prepare you for the next step, whether in industry, academia, as an entrepreneur, or to do further study. Here, research isn't just about answering questions; it's about shaping the future for you and the world. **At UNB Engineering you'll grow as both a researcher and a professional.**

DR. TIGER JEANS P.ENG
Associate Dean of Engineering
(Research & Graduate Studies)


COOPER ATRIUM
UNB
EST. 1785
UNIVERSITY OF NEW BRUNSWICK

STATS AT A GLANCE

TOP 300
ACADEMIC RANKING OF WORLD UNIVERSITIES
(Shanghai Ranking)

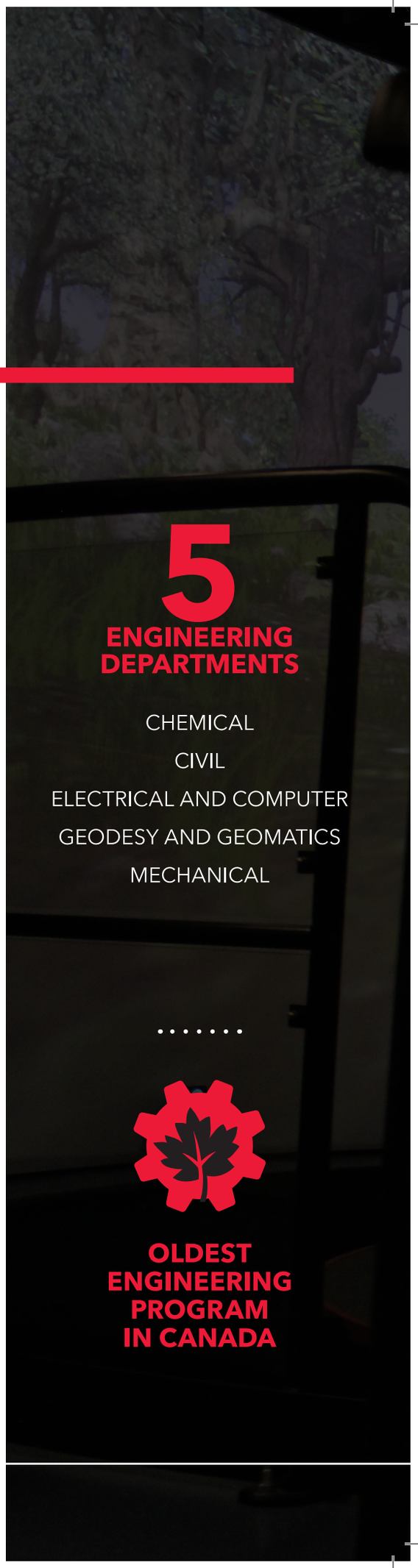
PLACED 62ND
WORLDWIDE IN THE CATEGORY OF RESEARCH QUALITY

90%
OF OUR FACULTY MEMBERS ARE INVOLVED IN RESEARCH

14%
OF OUR RESEARCHERS RANK AMONG THE TOP 2% GLOBALLY

#1
IN RESEARCH QUALITY IN ENGINEERING IN CANADA
(Times Higher Education World University Rankings 2026)

4:1
GRADUATE STUDENT-TO-FACULTY RATIO



5
ENGINEERING DEPARTMENTS

CHEMICAL

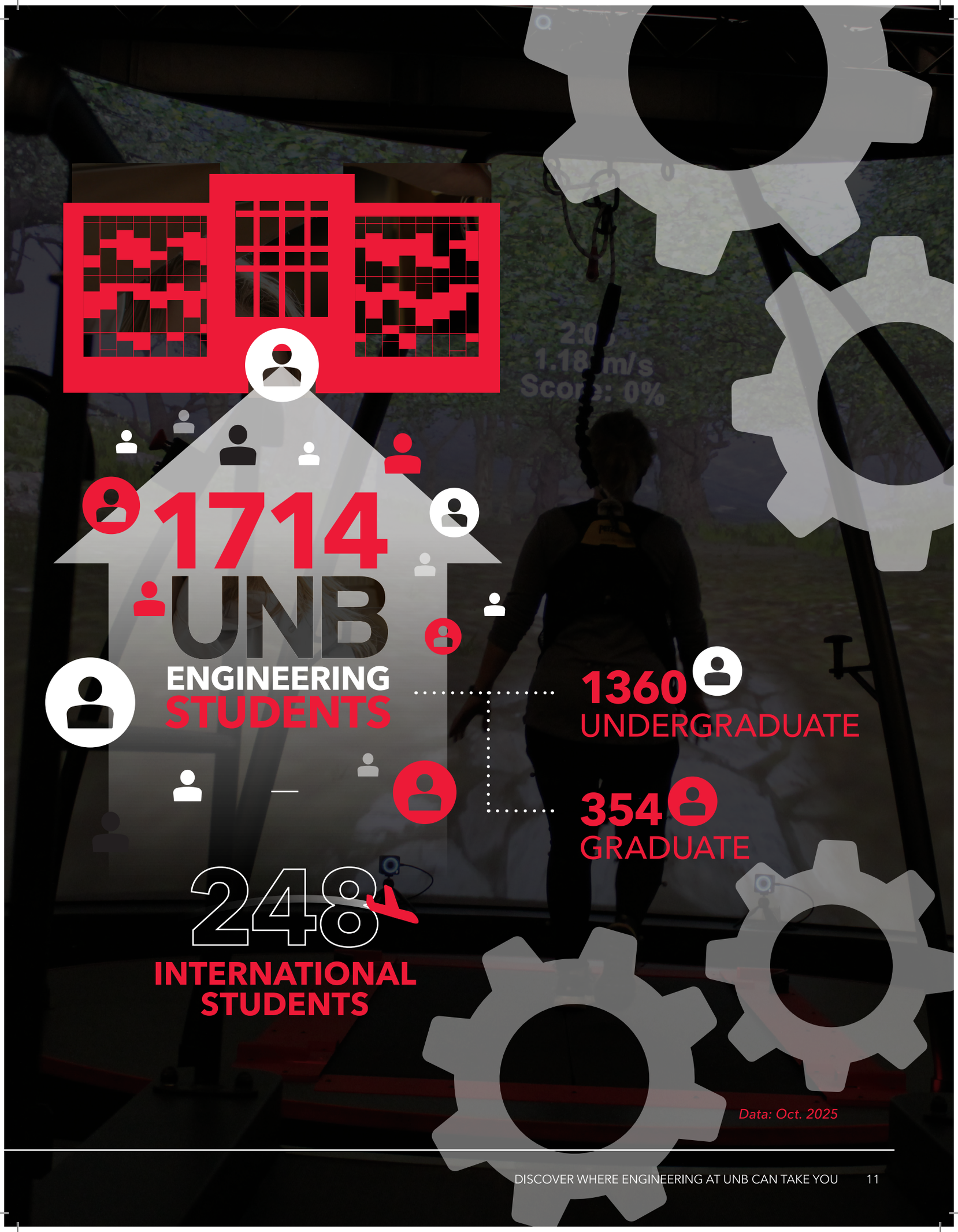
CIVIL

ELECTRICAL AND COMPUTER

GEODESY AND GEOMATICS

MECHANICAL

OLDEST ENGINEERING PROGRAM IN CANADA


1714
UNB
ENGINEERING
STUDENTS
1360
UNDERGRADUATE
354
GRADUATE
248
INTERNATIONAL
STUDENTS
Data: Oct. 2025



ENGINEERING GRADUATE PROGRAMS



COURSE-BASED GRADUATE PROGRAMS

MASTER OF ENGINEERING (MEng)

- Bachelor's degree in engineering required (or a related field, specifically for GGE applications)
- No Thesis
- 1-2 years
- Programs: Chemical, Civil, Electrical, Geodesy and Geomatics, Mechanical

Note: The MEng degree in Civil Engineering is considered a research-based degree as defined by the School of Graduate Studies. Students are required to complete a report under the supervision of a faculty member.

MASTER OF ENGINEERING LEADERSHIP IN DESIGN INNOVATION (MELDI)

- Bachelor's degree required
- Major Design Project
- 2 years

MASTER OF TECHNOLOGY, MANAGEMENT & ENTREPRENEURSHIP (MTME)

- Bachelor's degree required
- Project based
- 12 months

RESEARCH-BASED GRADUATE PROGRAMS

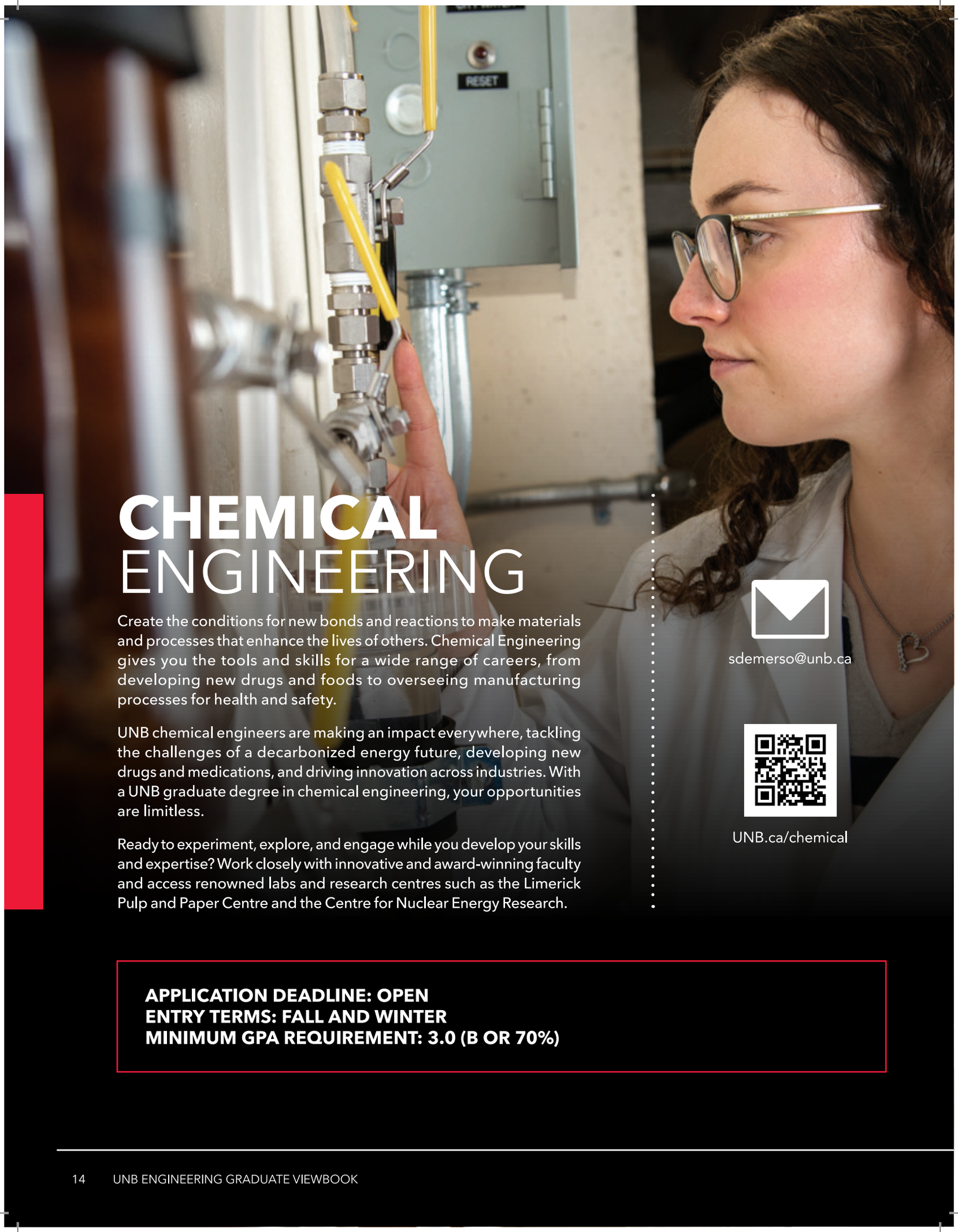
MASTER OF SCIENCE IN ENGINEERING (MScE)

- Bachelor's degree in engineering required (or a related field, specifically for GGE applications)
- Thesis
- 1-2 years
- Programs: Biomedical, Chemical, Civil, Electrical, Geodesy and Geomatics, Mechanical

DOCTOR OF PHILOSOPHY (PhD)

- Master's degree or working on MScE/MS
- Thesis
- 3-4 years
- Programs: Biomedical, Chemical, Civil, Electrical, Geodesy and Geomatics, Mechanical

See the following pages for Discipline-Specific Degrees



CHEMICAL ENGINEERING

Create the conditions for new bonds and reactions to make materials and processes that enhance the lives of others. Chemical Engineering gives you the tools and skills for a wide range of careers, from developing new drugs and foods to overseeing manufacturing processes for health and safety.

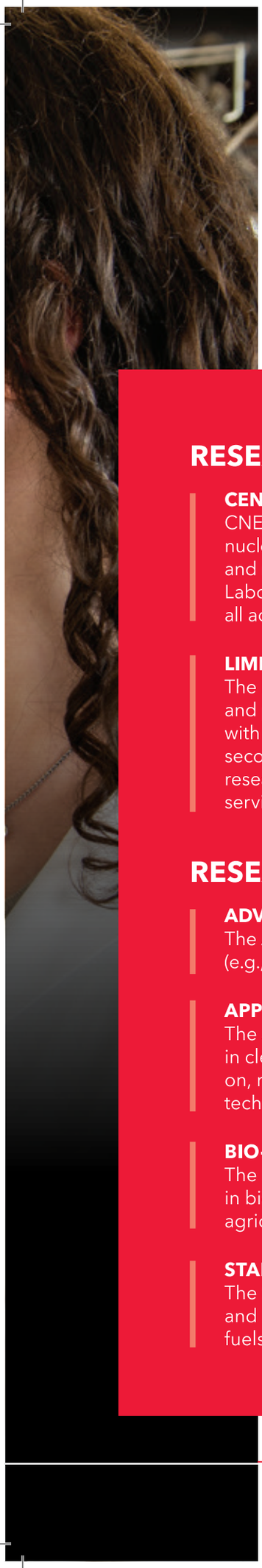
UNB chemical engineers are making an impact everywhere, tackling the challenges of a decarbonized energy future, developing new drugs and medications, and driving innovation across industries. With a UNB graduate degree in chemical engineering, your opportunities are limitless.

Ready to experiment, explore, and engage while you develop your skills and expertise? Work closely with innovative and award-winning faculty and access renowned labs and research centres such as the Limerick Pulp and Paper Centre and the Centre for Nuclear Energy Research.

sdemerso@unb.ca

UNB.ca/chemical

APPLICATION DEADLINE: OPEN
ENTRY TERMS: FALL AND WINTER
MINIMUM GPA REQUIREMENT: 3.0 (B OR 70%)



RESEARCH AREAS

- Advanced Manufacturing
- Advanced Nuclear
- Catalysis/Adsorption
- Corrosion Engineering
- Environment/Sustainability
- Nanoscience/Engineering
- Oil & Gas /Bioenergy
- Polymer Materials/Processes
- Pulp & Paper Technology
- Renewable Energy

RESEARCH CENTRES

CENTRE FOR NUCLEAR ENERGY RESEARCH (CNER)
CNER conducts applied research and development focused on the operation and maintenance of nuclear power stations, delivering state-of-the-art, interdisciplinary projects and services to industry and research partners worldwide. The centre maintains formal collaborations with Canadian Nuclear Laboratories, Atomic Energy of Canada Ltd., and the NB Research and Productivity Council, ensuring all activities meet nuclear regulatory standards.

LIMERICK PULP & PAPER CENTRE
The Limerick Pulp and Paper Centre conducts world-class research and development in selected pulp and paper areas, provides relevant education to university and industry students, and collaborates with industry and government on R&D projects. With expertise in wood pulping, pulp bleaching, secondary fibre processing, and papermaking, the Centre works with several companies on applied research, offers distance education to mill personnel, and delivers testing, technical, and library services to organizations in the Atlantic Provinces.

RESEARCH GROUPS

ADVANCED RENEWABLES AND CATALYSIS LAB
The Advanced Renewables and Catalysis Lab is developing technologies for recycling waste materials (e.g., aluminum and plastic waste) and generating carbon and clean fuel products from waste biomass.

APPLIED NANOTECHNOLOGY LAB
The Applied NanoLab trains graduate students to design and test nanomaterials for applications in clean energy, carbon materials, composites, catalysts, and hydrogen storage through hands-on, research environment that connects materials science, industry collaboration, and commercial technologies.

BIO-RESOURCES RESEARCH LAB
The Bio-Resources Research Laboratory gives graduate students hands-on research experience in bio-resources, waste biomass, and biomaterials for applications in environmental remediation, agriculture, industry, and healthcare.

STAPLETON FAMILY ANALYSIS LAB
The Stapleton Analysis Lab provides graduate students with hands-on access to advanced analytical and materials-characterization tools for studying polymers, nanomaterials, composites, catalysts, fuels, and environmental samples.



CIVIL ENGINEERING

With roots dating back to 1854, UNB's Civil Engineering department has a long and prestigious history. Our graduate program has helped hundreds of students develop the necessary skills to plan, design and manage the essential infrastructure of modern society.

From highways and bridges to water treatment plants and energy-efficient buildings, graduates receive a solid foundation to build exciting careers with consulting engineering companies, NGOs, provincial and federal government agencies, and academic and research organizations around the world.

civil-grad@unb.ca

UNB.ca/civil

APPLICATION DEADLINE: FEB. 1 FOR FALL ADMISSION; JUNE 1 FOR WINTER ADMISSION; OCT. 1 FOR SUMMER ADMISSION
ENTRY TERMS: FALL AND WINTER FOR MEng; FALL, WINTER AND SUMMER FOR MScE AND PhD
MINIMUM GPA REQUIREMENT: 3.0 (B AVERAGE)



RESEARCH AREAS

- Construction & management engineering
- Geotechnical engineering
- Engineering materials & infrastructure renewal
- Structural engineering
- Transportation engineering
- Water & environmental engineering

RESEARCH CENTRES

OFF-SITE CONSTRUCTION RESEARCH CENTRE (OCRC)

UNB's Off-site Construction Research Centre seeks to transform the construction industry by optimizing alternate solutions to conventional, 'stick-built', on-site construction. In partnership with builders, designers and owners of the built environment, the OCRC's research investigates advanced solutions based on emerging digital technologies and design for manufacturing and assembly approaches.

RESEARCH GROUPS

CONSTRUCTION ENGINEERING & MANAGEMENT GROUP

Research within the Construction Engineering and Management (CEM) Group is centered on improving the performance of the construction industry through the appropriate adoption and implementation of methods and technologies to support the management process.

MATERIALS GROUP

Research within the Materials Group includes investigations into innovative materials and, particularly, construction materials which improve the sustainability and long-term durability of civil engineering infrastructure. Researchers are examining alternative materials to produce high-performance concrete and asphalt with a reduced environmental impact. The results of UNB's research help inform the national standards on civil infrastructure and lead the movement toward sustainable structures.

TRANSPORTATION GROUP

The Transportation Group is dedicated to shaping the next generation of transportation professionals through innovative education, hands-on research, and industry collaboration. The group's research supports regional and national transportation priorities by advancing mobility, enhancing safety, and promoting sustainability across transport systems, infrastructure, and pavement design and management.

GEOTECHNICAL GROUP

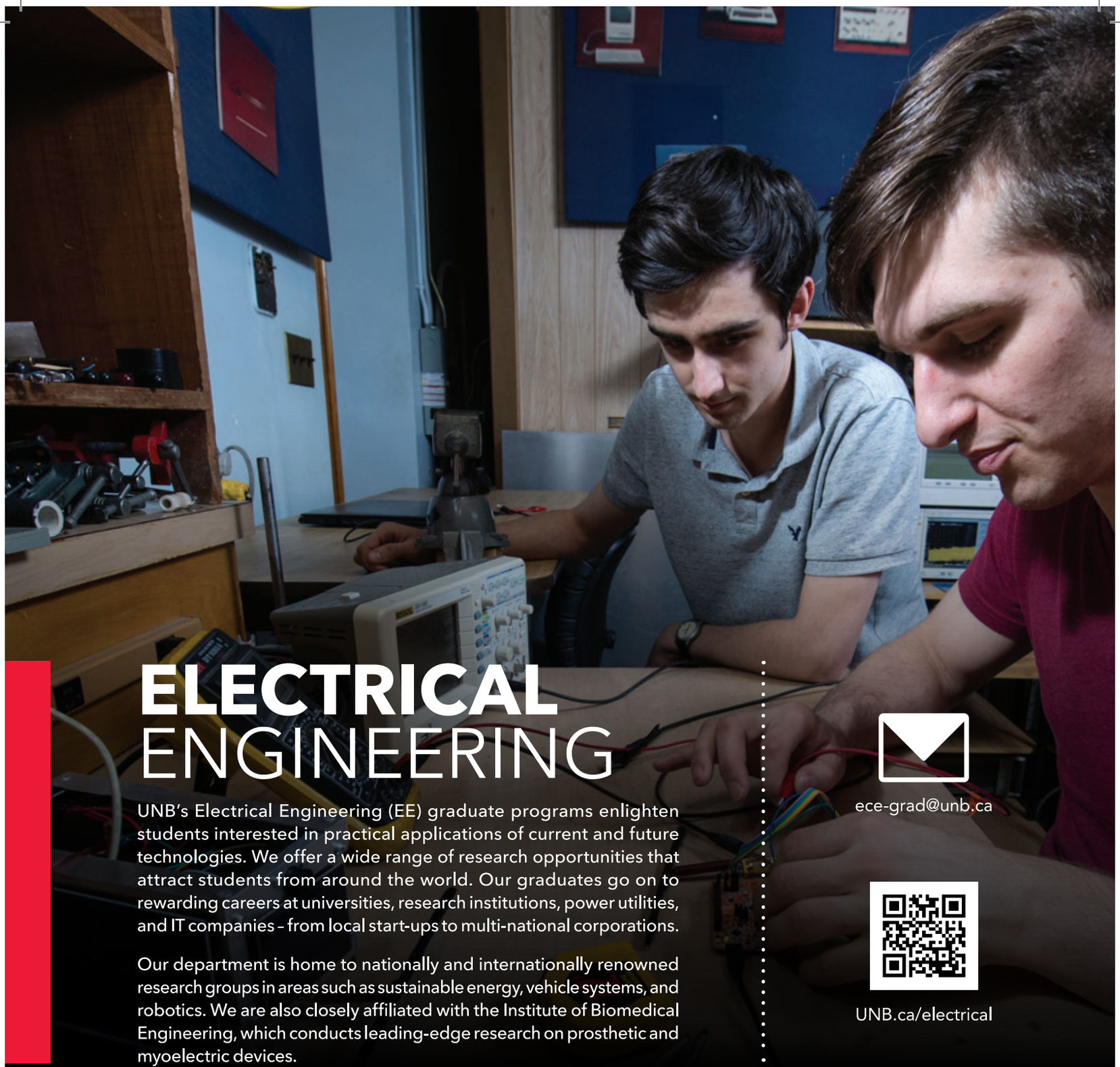
The Geotechnical Group's research focuses on areas such as retaining walls and earth pressures, ground improvement methods, bearing capacity, soil property estimation, and slope stability, with an emphasis on extending concepts in unsaturated soil mechanics. In addition, the group explores topics such as radioactive waste management, climate change adaptation for geotechnical infrastructure, natural and engineered barrier systems, coupled thermo-hydro-mechanical-chemical processes in porous media, and the thermal properties of materials used in geotechnical applications.

STRUCTURES GROUP

Research in the Structures Group covers soil-structure interaction, structural health monitoring, probabilistic analysis and reliability, structural analysis and design, impact- and blast-resistant structures, dynamic material properties, FRP retrofitting, lightweight concrete structures, earthquake engineering, high-performance structural systems, and the effective design of steel structures.

WATER & ENVIRONMENTAL GROUP

The Water and Environmental Group is engaged in developing innovative systems and infrastructures for protection of water resources and sustainable management of municipal and industrial wastes. The group educates and train students and professionals in groundwater management, eco-friendly surface water hydraulics, and water treatment processes.



ELECTRICAL ENGINEERING

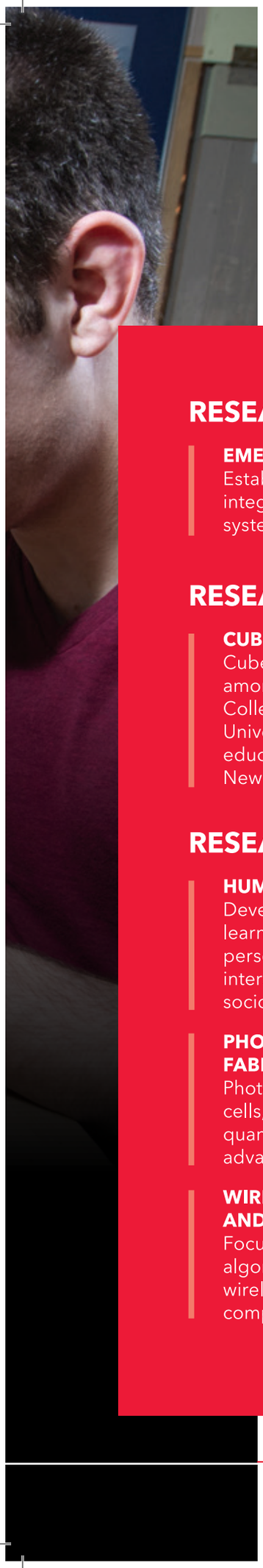
UNB's Electrical Engineering (EE) graduate programs enlighten students interested in practical applications of current and future technologies. We offer a wide range of research opportunities that attract students from around the world. Our graduates go on to rewarding careers at universities, research institutions, power utilities, and IT companies – from local start-ups to multi-national corporations.

Our department is home to nationally and internationally renowned research groups in areas such as sustainable energy, vehicle systems, and robotics. We are also closely affiliated with the Institute of Biomedical Engineering, which conducts leading-edge research on prosthetic and myoelectric devices.

ece-grad@unb.ca

UNB.ca/electrical

APPLICATION DEADLINE: OPEN
ENTRY TERMS: FALL AND WINTER
MINIMUM GPA REQUIREMENT: 80% AVERAGE



RESEARCH AREAS

- Advanced Electric Motors
- Applied AI and Intelligent Systems
- Biomedical engineering
- Intelligent Sensing and Wireless Power
- Intelligent Vehicle Systems
- Marine Renewable Energy
- Mechatronics/Robotics
- Smart Grid
- Wireless Communications

RESEARCH CENTRES

EMERA & NB POWER RESEARCH CENTRE FOR SMART GRID TECHNOLOGIES
Established in 2016, this research centre is advancing next-generation electricity systems by integrating renewable energy, storage, and microgrids. Research spans power electronics, control systems, and real-world commercialization.

RESEARCH GROUPS

CUBESAT NB
CubeSat NB is a first-of-its-kind partnership among the New Brunswick Community College, the Université de Moncton and the University of New Brunswick. Our goal is to educate students as we design, build and test New Brunswick's cube satellites, CubeSats.

WIRELESS POWER, INSTRUMENTATION, RADAR, ELECTROMAGNETICS, AND SENSORS (WIRELESS) GROUP
Conducts collaborative research in electromagnetics, wireless systems, and sensing technologies to support applications in transportation, environmental monitoring, wearable technologies, and next-generation connected systems.

RESEARCH LABS

HUMAN-CENTERED AI LAB
Develops AI-based assistants and deep learning models using explainable AI and personalization of deep learning at the intersection of engineering, linguistics, and sociology to improve quality of life.

PHOTONICS LAB - SILICON THIN FILM FABRICATION (STIFF LAB)
Photonics research work involves solar cells, LEDs, silicon photonics, and quantum photonics, to drive cutting-edge advancements in nanotechnology.

WIRELESS INTELLIGENT NETWORKING AND COMPUTING LAB (WINC LAB)
Focuses on developing new architectures, algorithms, and system designs for intelligent wireless communication, networking, and computing.

SOFTWARE DEFINED ENERGY LAB
Designs software-based frameworks to improve energy security, reduce costs and emissions, and support sustainable energy systems.

MOVEMENT AND BIOSIGNALS INTELLIGENCE LAB (MOBIL)
Applies emerging machine learning and AI methods to interpret human movement and physiological signals for health and security applications. Students work with real-world data, intelligent sensor systems, and multidisciplinary partners to create deployable safety-critical solutions for healthcare, assistive technology, and secure environments.

SYSTEM-LEVEL MODEL DEVELOPMENT ENGINEERING LAB (SYS-MODEL)
An end-to-end systems lab for systems understanding via systems thinking, to multiphysics modelling and simulation, optimization, robotics, advanced control, and systems design.



GEODESY & GEOMATICS ENGINEERING

The Geodesy and Geomatics Engineering (GGE) graduate program at UNB combines the study of geodesy and geomatics, giving students a well-rounded understanding of the field. We offer an interdisciplinary, practical approach that relates these subjects to other disciplines such as geology, physics, civil engineering, oceanography, and law. Our top-rated internationally-known department provides students access to associated research centres and the latest geodetic instruments. More than 500 students around the globe have obtained postgraduate degrees from GGE, going on to become faculty members, researchers, and professionals in well-recognized universities, research institutes, industries and companies worldwide.

ggegrad@unb.ca

UNB.ca/gge

APPLICATION DEADLINE: FEB 1 FOR MENG FOR FALL ADMISSION
ENTRY TERMS: FALL, WINTER, AND SUMMER FOR MScE AND PhD
MINIMUM GPA REQUIREMENT: 3.0 (B AVERAGE)



RESEARCH AREAS

- Big Data & Data Science
- Geodetic research: GNSS
- Geodetic research: Gravity
- Geographic Information Systems (GIS)
- Land Administration
- Ocean Mapping & Hydrography
- Remote Sensing and & photogrammetry

RESEARCH CENTRES

CANADIAN CENTRE FOR GEODETIC ENGINEERING (CCGE)
The research at CCGE concentrates the development of integrated analysis of structural and rock mass deformations arising during extraction and processing of raw materials. The growing global demand for raw materials and energy leads to mining under difficult geological conditions with increased complexity of operations.

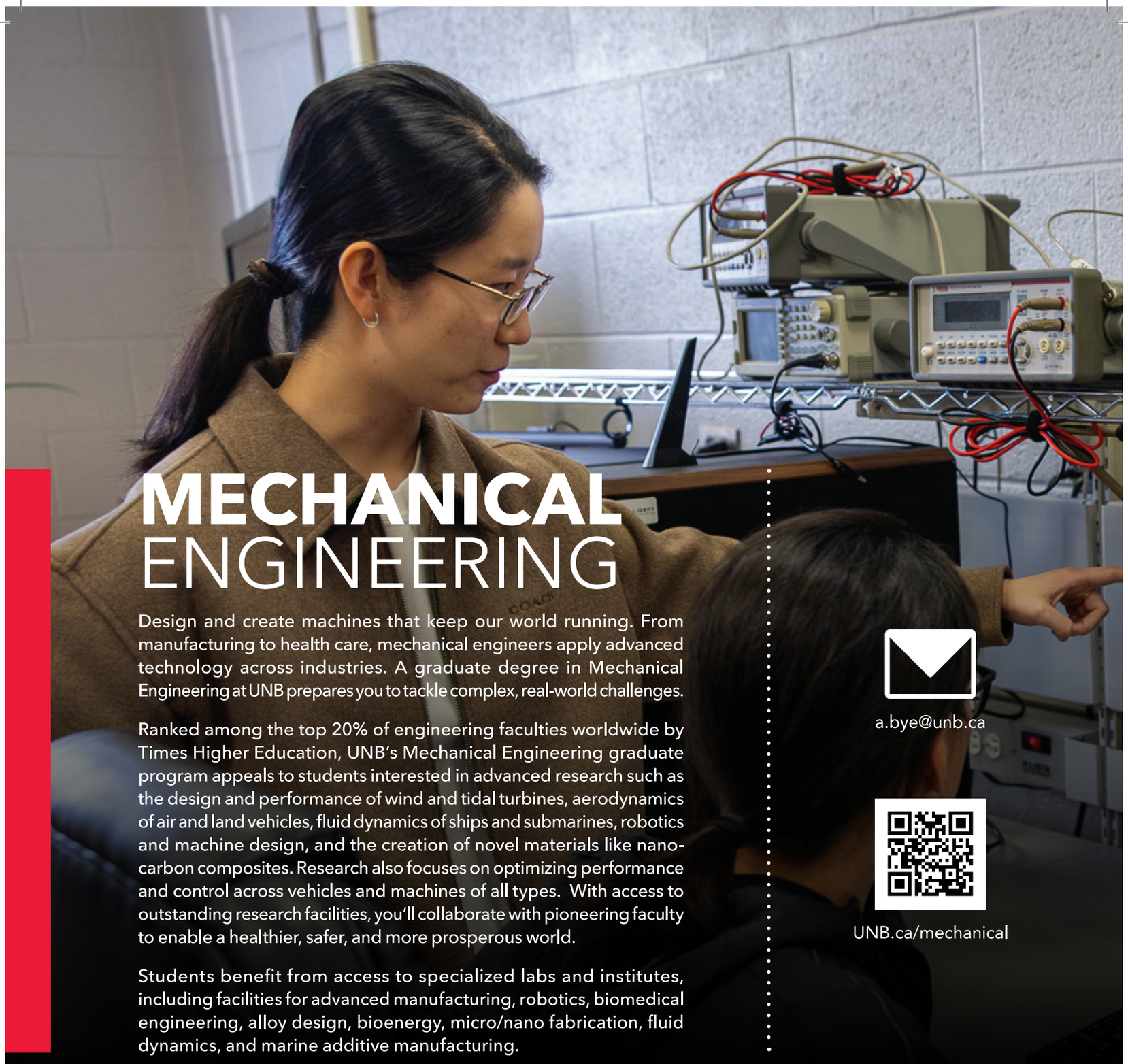
RESEARCH GROUPS

GEODESY GROUP
The main research topic of the Geodesy Group is the geoid, the horizontal surface that best approximates the sea level, and the reference surface for meaningful heights. The group also carries out research related to geodynamics.

OCEAN MAPPING GROUP
The Ocean Mapping Group is focused on developing new and innovative techniques and tools for the management, processing, visualization and interpretation of ocean mapping data. The group specializes in the areas of seafloor mapping, hydrodynamic numerical ocean modelling, marine habitat mapping, acoustic water column interpretation, and evaluating autonomous mapping platforms.

RESEARCH LABS

THE GEODETIC RESEARCH LABORATORY
Activities in the GRL focus on research and development in the areas of static and kinematic positioning with global navigation satellite systems such as the Global Positioning System (GPS), satellite altimetry, geoid determination, crustal deformation, and tropospheric and ionospheric studies.



MECHANICAL ENGINEERING

Design and create machines that keep our world running. From manufacturing to health care, mechanical engineers apply advanced technology across industries. A graduate degree in Mechanical Engineering at UNB prepares you to tackle complex, real-world challenges.

Ranked among the top 20% of engineering faculties worldwide by Times Higher Education, UNB's Mechanical Engineering graduate program appeals to students interested in advanced research such as the design and performance of wind and tidal turbines, aerodynamics of air and land vehicles, fluid dynamics of ships and submarines, robotics and machine design, and the creation of novel materials like nano-carbon composites. Research also focuses on optimizing performance and control across vehicles and machines of all types. With access to outstanding research facilities, you'll collaborate with pioneering faculty to enable a healthier, safer, and more prosperous world.

Students benefit from access to specialized labs and institutes, including facilities for advanced manufacturing, robotics, biomedical engineering, alloy design, bioenergy, micro/nano fabrication, fluid dynamics, and marine additive manufacturing.

a.bye@unb.ca

UNB.ca/mechanical

APPLICATION DEADLINE: OPEN (MScE AND PhD), MARCH 1 AND JULY 1 (MEng)
ENTRY TERMS: FALL, WINTER, AND SUMMER. NOTE: THE MEng PROGRAM ADMITS STUDENTS IN FALL AND WINTER ONLY
MINIMUM GPA REQUIREMENT: 3.0 (B OR 70%)



RESEARCH AREAS

- Acoustics and vibration
- Advanced manufacturing and materials processing
- Alloy and high-entropy alloy design
- Autonomous systems
- Bioenergy, biofuels, and biomass processing
- Biomedical, biomechanics, ergonomics
- Combustion mechanics
- Digital Twinning and Cyber-Physical-Systems
- Intelligent process control
- Material characterization and testing
- Mechatronics and design
- Multiscale modeling, CFD and FEA
- Nanocomposites and mechanics
- Renewable energy systems
- Robotics, design, and applied mechanics
- Smart sensors and actuators
- Solid mechanics
- Thermofluids & aerodynamics
- Vehicle designs

RESEARCH CENTRES

MARINE ADDITIVE MANUFACTURING CENTRE OF EXCELLENCE (MAMCE)
MAMCE ensures the adoption of additive manufacturing, also known as 3D printing, in the industrial marine sector of Canada. Methods, procedures, and effective workforce training systems are developed, with collaboration from certification organizations, to ensure designs and parts meet commercial-use requirements.

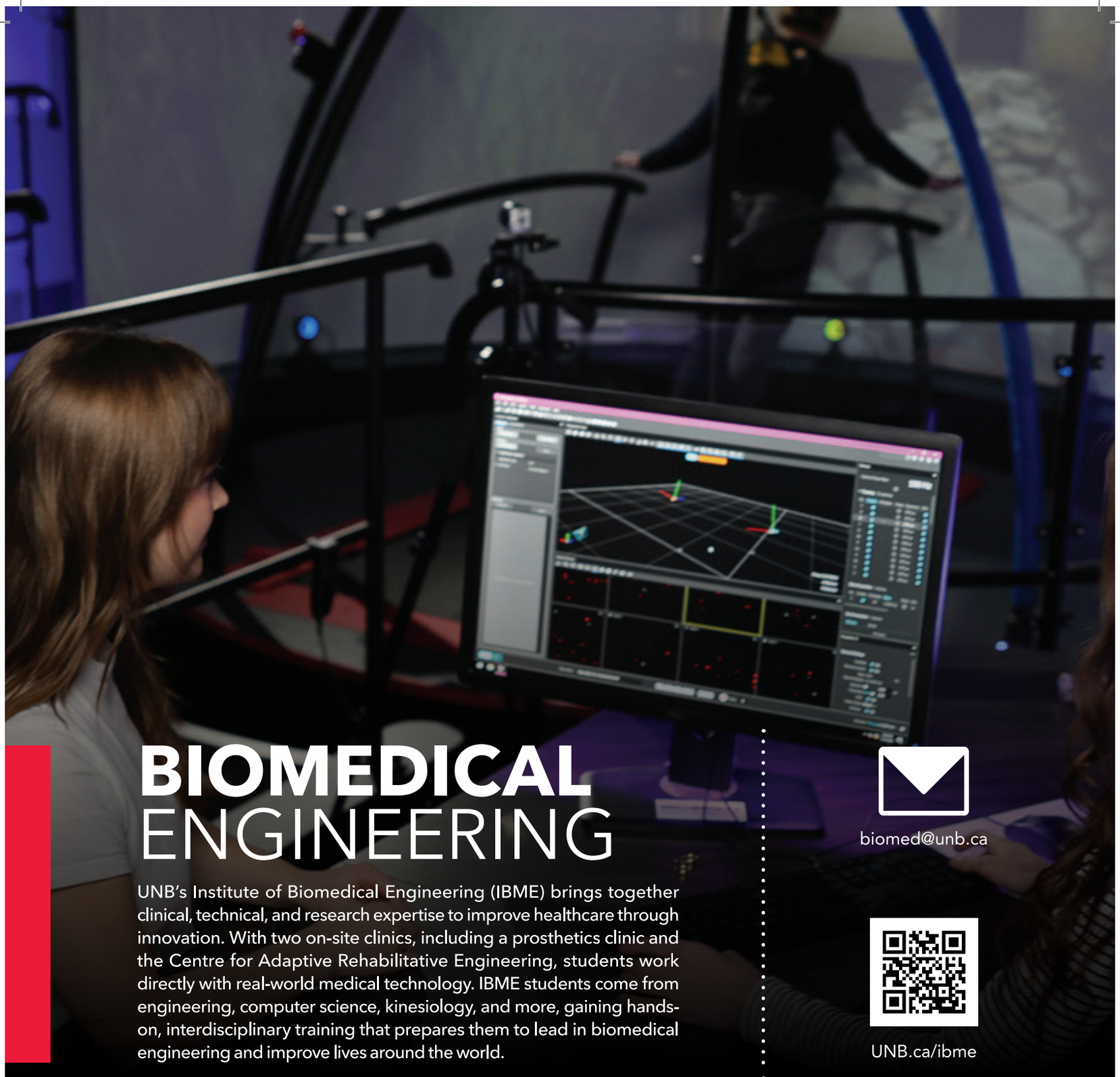
RESEARCH LABS

ADVANCED MANUFACTURING LABORATORY
AML conducts research in high performance machining, manufacturing, and materials characterization.

ALLOY DESIGN RESEARCH LABORATORY
ADRL focuses on designing, manufacturing, and optimizing metallic materials through integrated experiments, characterization, and modeling. It develops advanced alloys for a wide range of industrial applications across the manufacturing, energy, and transportation sectors. The laboratory also conducts materials testing in accordance with industry standards to support performance validation and technology deployment.

NANOCOMPOSITES AND MECHANICS LAB
NCM focuses on the development and integration of high-strength, lightweight materials, and surface-protective, nanoscale, material-activated technology solutions and seeks to prevent material failures. The lab includes work in nanostructured (composite) particle design and synthesis, cold spray additive manufacturing (CSAM) of coatings and 3D architectures, and research into biocomposites.

INTELLIGENT MOBILITY AND ROBOTICS LAB (IMRL)
IMRL is dedicated to advancing intelligent systems that enhance human well-being, accelerate technological innovation for industry, and serve the broader STEM community.



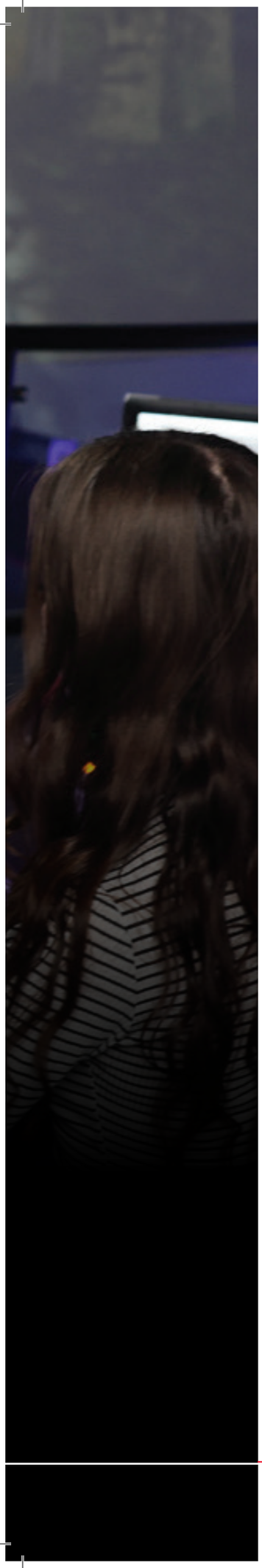
BIOMEDICAL ENGINEERING

UNB's Institute of Biomedical Engineering (IBME) brings together clinical, technical, and research expertise to improve healthcare through innovation. With two on-site clinics, including a prosthetics clinic and the Centre for Adaptive Rehabilitative Engineering, students work directly with real-world medical technology. IBME students come from engineering, computer science, kinesiology, and more, gaining hands-on, interdisciplinary training that prepares them to lead in biomedical engineering and improve lives around the world.

biomed@unb.ca

UNB.ca/ibme

APPLICATION DEADLINE: OPEN
ENTRY TERMS: FALL, WINTER, SUMMER
MINIMUM GPA REQUIREMENT: 80%



RESEARCH AREAS

- AI and Machine Learning
- Assistive robotics (prostheses, exoskeletons)
- Augmentative and Restorative Technology
- Biometrics
- Healthy aging
- Human-Centered systems
- Mixed-methods research
- Rehabilitation

RESEARCH TOOLS

- Advanced research simulators / environments
- AI and Machine Learning
- Biomechanics and Statistics
- Control-theoretic approaches
- Human Factors and Clinical Evaluation
- Mixed-methods research and participant-co-design



MASTER OF ENGINEERING

LEADERSHIP IN DESIGN INNOVATION (MELDI)

MELDI is a two-year interdisciplinary graduate studies program focused on the future of engineering. It is a unique course-based program that brings together three learning components: Management and leadership, Design Innovation, and Advanced Technical Courses. The program collaborates with UNB Engineering, the Faculty of Management (AACSB accredited), and the School of Leadership Studies to provide students with training for the future. This program brings together the best of these three areas to encourage competent and successful engineering leadership in multiple sectors.

meldi@unb.ca

UNB.ca/meldi

APPLICATION DEADLINE: MARCH 1 (INTERNATIONAL) | JUNE 1 (DOMESTIC)
ENTRY TERMS: FALL
MINIMUM GPA REQUIREMENT: 3.0 (B AVERAGE)



MELDI STUDENTS ARE SOLVING THE WORLD'S BIGGEST CHALLENGES WITH THREE LEARNING COMPONENTS:

- Advanced training for tomorrow's challenges
- Management and leadership
- Innovation and design

STUDENTS CAN CHOOSE FROM FOUR TECHNICAL CONCENTRATIONS:

- Energy transitions for the future led by **chemical engineering**
- Building better communities led by **civil engineering**
- Resilient power systems led by **electrical engineering**
- Innovative manufacturing led by **mechanical engineering**



MASTER OF TECHNOLOGY MANAGEMENT AND ENTREPRENEURSHIP (MTME)

The MTME is a one-year graduate studies program through UNB's J Herbert Smith Centre on the Fredericton campus. It is a unique course-based program focused on supporting students to create innovative technology-based solutions to real-world problems that have the potential to become viable businesses.

mtme@unb.ca

UNB.ca/mtme

APPLICATION DEADLINE: MAY 1 (INTERNATIONAL) | JUNE 30 (DOMESTIC)
ENTRY TERMS: FALL
MINIMUM GPA REQUIREMENT: 3.0 (B AVERAGE)

ADVANCED METHODS OF CONSTRUCTION (AMC)

AMC is a one-year certificate through the University of New Brunswick's (UNB) faculty of engineering in Fredericton, New Brunswick. It is an in-person course-based credential focused on applying modern methods of construction in construction practices.

The way we are doing construction is changing with these priorities:

1. Digitized processes
2. Modernized design approaches
3. Innovative project delivery

KEY FEATURES OF AMC

- Driven by industry challenges, this program prepares practitioners to apply modern construction methods and technologies in their careers
- Achievable in one year on a part-time basis
- Invest in your career by completing three courses that will building life long expertise

WHO SHOULD ENROLL IN AMC?

Designers, manufacturers, developers, and owners involved in planning, designing, managing, and delivering projects that include engineering, fabrication, and off-site assembly.

SIX COURSES TO CHOOSE FROM WITHIN TWO THEMES:

PROCESS

ENGG6301
Design for Manufacturing and Assembly

ENGG6302
Lean Production

ENGG6303
Project Management and Planning

TECHNOLOGY

ENGG6304
Building Science and Technology

ENGG6305
BIM and Digital Technology

ENGG6306
Automation and Robotics

For more information on the AMC, visit:

UNB.ca/ocrc/certificate-diploma

CO-OP PROGRAM

As a new graduate student, you can join co-op right away in the first term of your first year. Make sure you attend an orientation session at the start of the term, whether fall or winter.

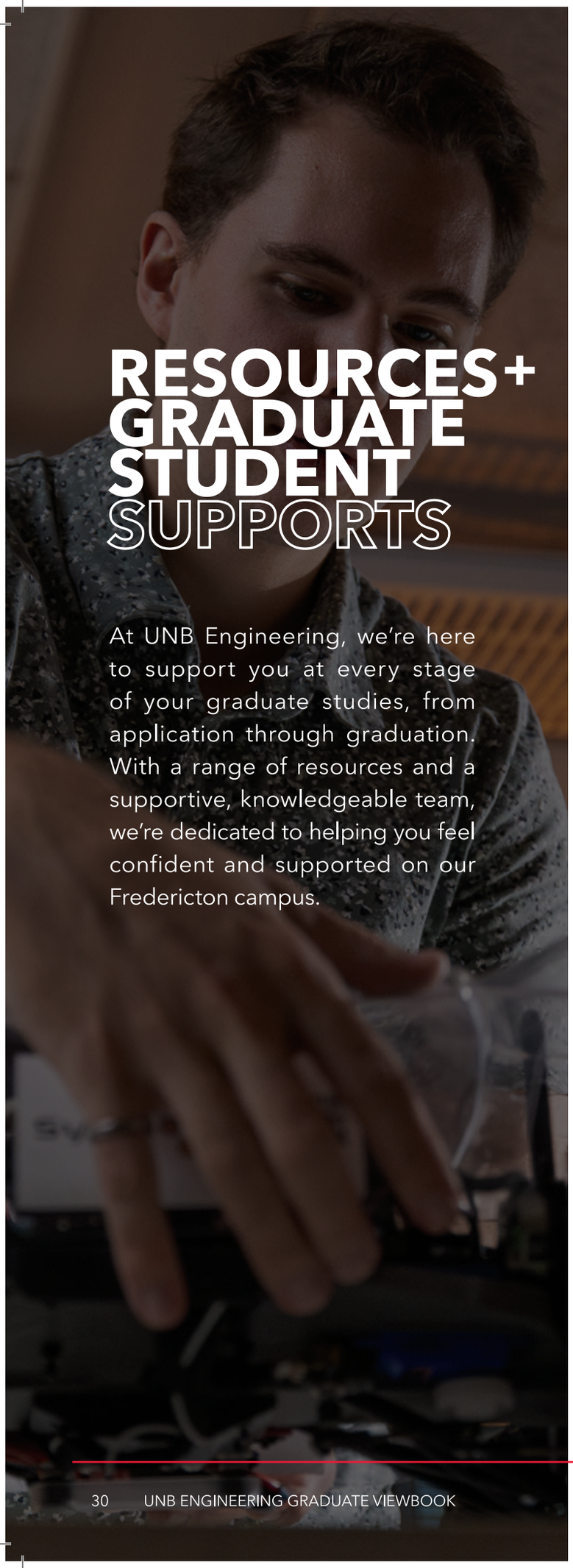
MEng: eligible for 8 months (2 terms of co-op)
MScE: eligible for 12 months (3 terms of co-op)
MELDI: eligible for 4 months (1 term of co-op)
PhD: eligible for 12 months (3 terms of co-op)

Please note that all graduate degree programs are approved for co-op except for the MTME.

unbcoop@unb.ca

UNB.ca/fredericton/engineering/co-op





RESOURCES+ GRADUATE STUDENT SUPPORTS

At UNB Engineering, we're here to support you at every stage of your graduate studies, from application through graduation. With a range of resources and a supportive, knowledgeable team, we're dedicated to helping you feel confident and supported on our Fredericton campus.

SCHOOL OF

GRADUATE STUDIES (SGS)

Prospective graduate students can learn more about UNB's graduate programs, admissions requirements, funding information, grad student life, and available resources and services on the SGS website. The SGS also provides current grad students with the necessary forms and information for completing their degree.

School of Graduate Studies (Fredericton Campus)

3 Bailey Drive
Sir Howard Douglas Hall-#317

gradschl@unb.ca
UNB.ca/gradstudies

GRADUATE STUDENT ASSOCIATION (GSA)

The GSA provides a stimulating environment through social and academic gatherings, as well as access to services such as:

- health and dental plans
- student travel plans
- student orientation program

office@unbgsa.ca
UNBgsa.ca

UNION OF GRADUATE STUDENT WORKERS (UGSW)

The union of graduate student workers represents over 400 graduate students on both campuses. Graduate students have access to job postings, union representative postings, scholarship funding, and information on upcoming events.

ugsw.ca

NON-CREDIT CERTIFICATES IN UNIVERSITY TEACHING

UNB's Centre for Enhanced Teaching & Learning offers diverse programming in university teaching. Built to meet your context and learning needs, our short courses and programs will help you build a foundation of knowledge, develop practical skills, and support you to investigate topics of special interest.

There are three non-credit certificates in university teaching available, designed for beginner, intermediate, and advanced practitioners:

1. Foundations of University Teaching
2. Transformative University Teaching
3. Advanced Practice in University Teaching

For more information or to register for one of the certificate programs, visit:

UNB.ca/fredericton/cetl/dut



MAKERSPACE

Makerspace is an inclusive workshop and design studio open to all students, no matter their faculty or department. It's a creative hub for sharing ideas, learning new techniques, and bringing designs to life. The space is equipped with high-quality 3D printers, a laser cutter, and a wide range of electronic tools and materials, perfect for building prototypes, testing projects, and collaborating on innovative ideas.

unb.ca/fredericton/engineering/design/makerspace

FINANCIAL AID

The Financial Aid Office helps students plan and manage the cost of their university education by providing guidance on bursaries, awards, government loans, budgeting, and financial planning, along with information on tuition, fees, residence, meal plans, scholarships, and student employment.

UNB.ca/moneymatters

HEALTH PLAN AND INSURANCE

Full time graduate students are automatically enrolled in the Student Health & Dental insurance plan through WeSpeakStudent. Graduate students can also opt-in family members.

wespeakstudent.com/home/81-unb-graduate-students-

COUNSELLING SERVICES

UNB Counselling Services provides a range of free, confidential short-term mental health services to students at UNB. Appointments are offered in-person, over the phone, or by video (Microsoft Teams).

For more information, visit:
UNB.ca/sas/wellness/counselling

MI'KMAQ-WOLASTOQEY CENTRE

The Mi'kmaq-Wolastoqey Centre (MWC) offers a wide range of services, including academic advising, tutoring, mentoring, counselling, and cultural programming to all Indigenous students pursuing higher education at UNB.

UNB.ca/mwc

STUDENT HEALTH CENTRE

The UNB Student Health Centre provides year-round primary care for full-time students in Fredericton. With valid health insurance and student ID, students can book confidential appointments with physicians, nurse practitioners, or dietitians, available in person, online, or by phone.

UNB.ca/sas/wellness/healthcentre

CHILDCARE SERVICES

UNB offers childcare services conveniently located on or near campus to support students and families.

UNB CHILDREN'S CENTRE

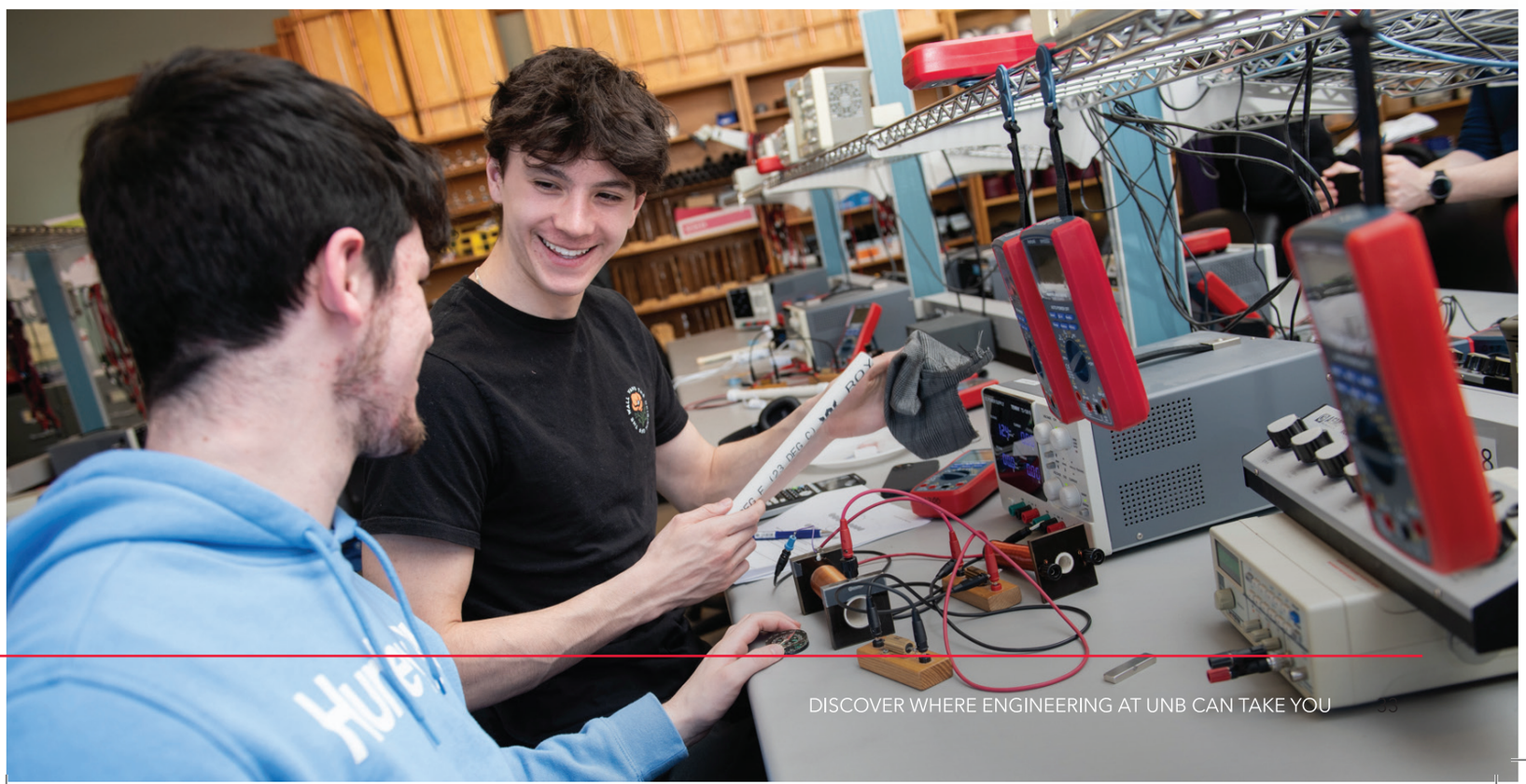
The UNB Children's Centre welcomes families from across the greater Fredericton area. As a not-for-profit early learning site for children, the centre offers a safe, nurturing, and play-based learning environment right on the UNB campus.

eccentre@unb.ca
UNB.ca/fredericton/education/ecc/childrens-centre

COLLEGE HILL EARLY LEARNING CO-OP

College Hill Early Learning Co-op (CHELC) provides high-quality, campus-based early childhood education for the communities of UNB and St. Thomas University. Through a child-centered approach and active parent involvement, College Hill Early Learning strives to be responsive to the diverse needs of children and their families.

chelc@unb.ca
UNB.ca/fredericton/chelc




M3
UNB

REDS RECREATION

Full-time UNB students are already REDS Recreation members. Your student ID card serves as a REDS Recreation membership card. As a REDS Recreation member, you have access to:

- Richard J. Currie Centre
- Lady Beaverbrook Gym
- Sir Max Aitken Pool (located in the Lady Beaverbrook Gym)

REDS Recreation services include:

- Group fitness classes
- Personal training
- Recreational sports programs

UNB.ca/fredericton/redsrec

INTERNATIONAL STUDENT ADVISORS OFFICE (ISAO)

The International Student Advisors Office (ISAO) provides support, guidance, and advocacy to students before, during, and after their arrival in Canada.

Services offered by the ISAO include virtual and in-person sessions, one-on-one advising and mentorship, arrival and transition support, immigration advising, and referral services.

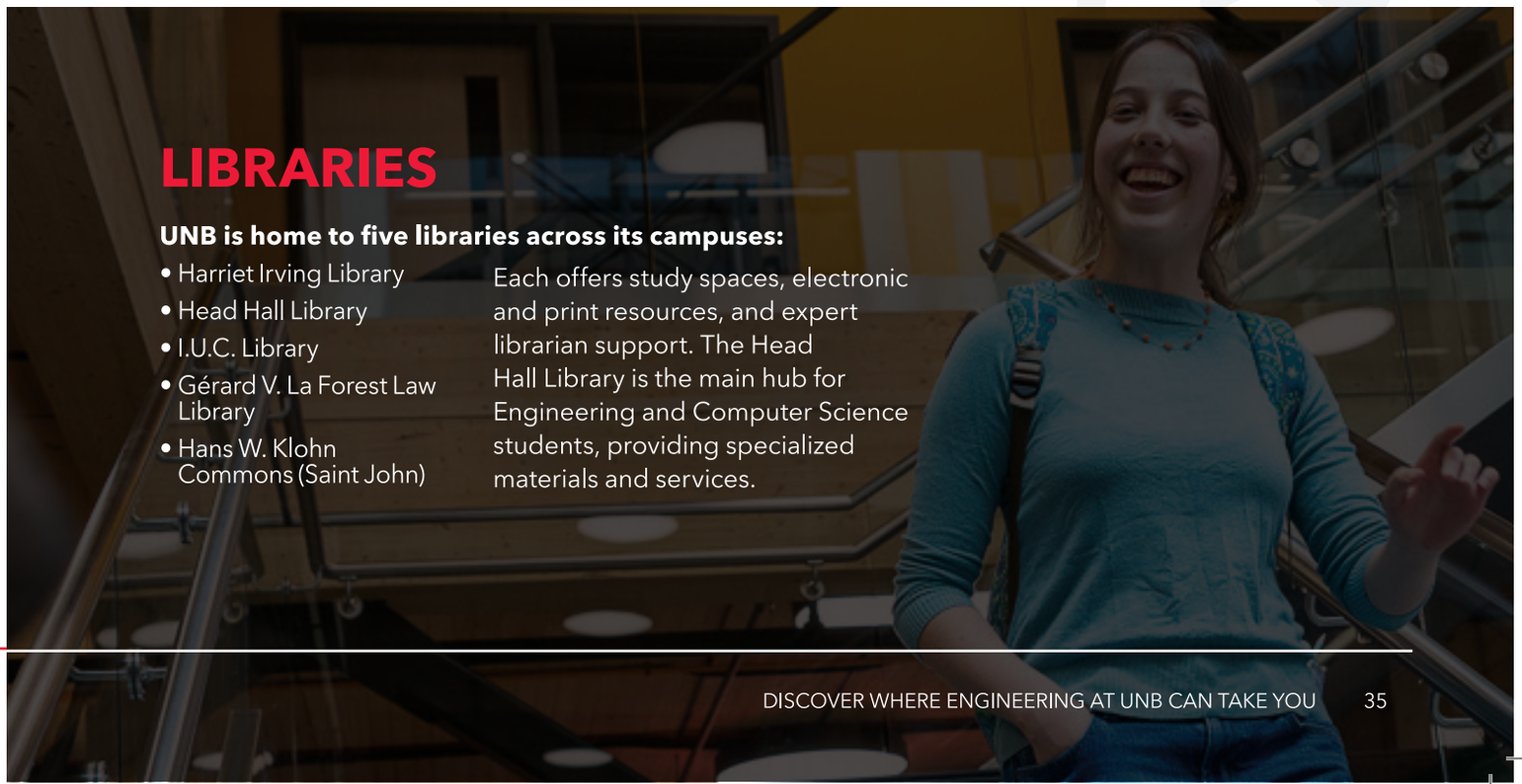
isao@unb.ca
UNB.ca/isao

STUDENT ACCESSIBILITY CENTRE

The Student Accessibility Centre (SAC) supports students with disabilities through services like guidance, advocacy, academic accommodations, referrals, assistance with Canada Student Grant for Students with Permanent Disabilities applications, Learning Strategist support, and Assistive Technology support.

For more information or to register with the SAC, visit:

unb.ca/academics/support/accessibility



LIBRARIES

UNB is home to five libraries across its campuses:

- Harriet Irving Library
- Head Hall Library
- I.U.C. Library
- Gérard V. La Forest Law Library
- Hans W. Klohn Commons (Saint John)

Each offers study spaces, electronic and print resources, and expert librarian support. The Head Hall Library is the main hub for Engineering and Computer Science students, providing specialized materials and services.

FUNDING YOUR DEGREE

AWARDS AND SCHOLARSHIPS

Funding is available to graduate students from four main sources:

1. Internal scholarships and awards
2. Internal employment (Teaching assistantships, research assistant ships)
3. External scholarships (i.e., NSERC)
4. External Supervisor contracts/grants

Prospective MScE and PhD students are advised to contact professors early to discuss potential funding and supervision opportunities.



LEARN MORE
about available awards, scholarships, and application deadlines here:
UNB.ca/gradstudies/current/financial/scholarships

HOW TO APPLY

1. Choose your program
2. Review the admission requirements
3. Apply online
4. Upload program-specific documentation.
   Documents include:
   - Statement of Interest (1-2 pages)
   - Three references
   - Official English-Language Test scores (If English is not your first language)
5. Submit your application and pay the application fee

ADMISSION REQUIREMENTS

1. An Undergraduate degree that meets the minimum GPA requirement
   - Applicants to the PhD program normally hold a master's degree from an accredited university
2. A complete application with 3 references and 1–2 page written statement
3. English language test scores (International applicants whose first language is not English)

TEST	MINIMUM SCORE
Duolingo English Test	Overall score of 125. Subscore of 105.
TOEFL	Computer Based TOEFL (minimum score 213) including Test of Written English-TWE (minimum score 4.0). Internet Based TOEFL (Minimum score 94) including the TWE (minimum score 25) Paper Based (minimum score of 550), including the TWE (minimum score 4.0) TOEFL ITP is not accepted.
IELTS	Band 7.0
MELAB	85
CanTest	Band 4.5
PTE	65

Please note that admission is competitive and meeting the minimum requirements does not guarantee acceptance. As space may be limited, applicants are encouraged to apply early.

More information on the English Language Requirements can be found here: **UNB.ca/gradstudies/admissions/international**

APPLY HERE

MY NOTES


UNB
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Engineering
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UNB.ca/engineering
unbengineering
UNBEngineering
UNBEngineering