

ENTREPENEURSHIP

The University of Calgary is Canada's Entrepreneurial University.

- In the top five globally for entrepreneurial university of the year in the <u>Triple E Awards</u>
- UCalgary is the top startup creator among Canadian research institutions two years in a row
 - o UCalgary leads in nurturing start-ups Association of University Technology Managers rankings
 - o 75% increase in new inventions, disclosures and patent applications (88 in 2010, 154 in 2020)
 - Hunter Hub for Entrepreneurial Thinking trains students, faculty and staff to act entrepreneurially
 - <u>UCeed</u> seed funding program to help commercialize new technologies, accelerate UCalgary start-ups
 - o <u>UIQ</u> provides space for companies and start-ups to work alongside UCalgary students and researchers
 - 154% increase start-ups created at UCalgary between 2017 and 2022
- UCalgary's entrepreneurial approach to research is sparking bold health innovations.
 - o UCalgary researchers collaborating globally to show how vaccines can treat high risk cancers in kids
 - o Joan Snyder's \$67.5 million gift elevates health and sport-science research, support women's hockey
 - o Azrieli Foundation \$25 million gift is driving neurodevelopmental research
 - Calgary-based company has <u>a new blood test for breast cancer</u> based on UCalgary research discoveries

ECONOMIC IMPACT

We're a big part of Calgary's economic story.

- The University of Calgary is a massive driver of innovation and economic growth that's poised to be even bigger in the years ahead.
 - Second largest employer in Calgary, supporting more than 22,000 direct & indirect jobs
 - o Generates \$16.5 billion in economic impact
 - o Creative Destruction Lab \$1.7 billion equity value creation by CDL-Rockies alumni companies
 - o Brought \$504 million in research investments to Calgary in 2021, up 10 % from 2019
- We're helping people train and retrain to build in-demand skills and keep up with the job market.
 - o Increased emphasis on partnerships and work-integrated learning means curriculum relevant to private sector
 - established the Communications Specialist Program, 2-year paid work experience for recent grads
 - o Stackable certificates that allow people to build up advanced credentials over time
 - Embracing new internship opportunities to provide innovative training opportunities
 - Increased remote learning options and <u>commitment to teaching innovation</u> provide flexibility for lifelong learning of in-demand skills like <u>data science and analytics</u>
- We're helping existing industries evolve and building entirely new ones.
 - o At the heart of any city that has transitioned its economy is a great research university
 - W21C is partnering with CAN Health Network to bring more homegrown tech to Canada's health-care sector
 - o School of Architecture, Planning and Landscape and Schulich School of Engineering scholars are analyzing ways for Canada's oilsands to go carbon neutral

CAPACITY

UCalgary must increase enrolments to meet Alberta's future labour needs.

- 40% of all post-secondary enrolment growth in Alberta will be in Calgary, and 21% at UCalgary alone
 - o Given this demand, UCalgary will be short 9,500 seats by 2031
 - o The Calgary region is projected to experience a shortage of over 17,700 post-secondary seats by 2031.
- UCalgary is already experiencing high turn-away rates and high entrance grades.
 - Median entrance grads have climbed to 88%
 - o Undergraduate applicant-to-registration ratio is 1:3.44 for every student we accept, we turn away 3.4 others
- UCalgary saw record enrolment in 2022-23
 - o 36,328 students enrolled in undergraduate and graduate programs, including over 8,000 graduate students.
- UCalgary grads have a 96.3% employment rate
- Over 2/3 of our 191,000 alumni live, work and raise families in Calgary

We need to invest in capacity building projects like the MDSH to meet this demand

STRATEGIC PLAN

In a turbulent time, the University of Calgary is thinking and acting Ahead of Tomorrow.

- Ahead of Tomorrow was approved by the Board of Governors and guides our work until 2030
- UCalgary held its largest ever consultation process, 23,913 people engaged over 10 months

Increasing access to future-focused education.

- We will become #1 university in the U15 for student engagement
- We will increase our total enrolment by 10,000 and boost graduate enrolment by 7,000
- We will make certain students can pursue entrepreneurial thinking in research and scholarship
 - o Ensure our thesis-based graduate students have the highest financial supports in the U15
 - o Provide one semester free for first-in-family students to expand access to education
 - Develop innovative programming that anticipates tomorrow's demands
 - Expand understanding of university's foundational commitments (EDIA, Indigenous, Mental Health, Global Engagement, Sustainability)
 - O Grow required programs for entrepreneurial thinking, research, and creative scholarship

Harnessing the power of research and innovation

- We will become #1 University in U15, research revenue per scholar
- We will grow external research revenue to \$750m a year
- We will grow from Canada's #1 creator of start-ups to the top 50 start-up creators in the world
 - o Create research opportunities for undergraduate students
 - Expand transdisciplinary scholarship by partnering with community on grand challenges
 - o Develop our research and innovation ecosystem

Locating community at the heart of everything we do

- We will become #1 in U15 for community engagement
- 25,000 students, faculty and staff will contribute to community challenges every year
- Engage 100,000 alumni, donors, and community members annually
 - o Incentivize community engagement
 - o Expand credits, scholarships, and professional inducements for community-focused work
 - o Enhance engagement capacity through position of Associate Dean (Community)
 - o Seed and nourish local and global partnerships with community and industry

We will make our processes clearer, simpler, better than any other university

- We will be #1 in U15 for ease and speed of services and supports
- We will be #1 in U15 for investment in professional development
- 90% of students, postdocs, faculty, and staff agree they have the tools and services they need
 - o Seamless student experience with increased flexibility to change majors or register in other program's courses
 - Annual re-orientation to increase awareness of services available to campus community
 - o Invest in process improvement and professional development

NOTEWORTHY RANKINGS / ACCOMPLISHMENTS

The University of Calgary has been climbing in global rankings and is among the highest rated universities of its age.

- Rankings aren't everything and they tend to penalize young universities, but...
- UCalgary is in the top 250 globally and 8th nationally from over 25,000 universities globally; this puts us in an elite class
- #7 of Canada's top research universities in Re\$earch Infosource Inc.'s Top 50 Research Universities list (2022 edition)
- #1 sport science school in North America, #10 globally
- UCalgary's Suzette Mayr won Canada's top literary award, the Giller prize, for her novel The Sleeping Car Porter

STUDENT EXPERIENCE

By increasing focus on student experience, UCalgary has seen dramatic increases in student satisfaction.

- Measured by NSSE, student satisfaction has steadily climbed over past decade
- 78% of first-year students rate their experience as good or excellent, three points above top-five comparators
- 25.2% increase in undergraduate degrees awarded annually (2017 2022)
- 55% increase in graduate degrees awarded annually (2017 2022)
- UCalgary saw higher engagement scores than Top 5 in almost all categories, no category below average
- UCalgary has a 94% post-graduation employment rate (vs. 12-16% youth unemployment)
- Launched <u>Hunter Student Commons building</u>, space open to all faculties designed to enhance student supports
- Taylor Institute for Teaching and Learning brings together teaching and learning research and resources

RESEARCH

In the past decade the University of Calgary has rocketed up national research rankings – leading to more investment in our community and more opportunities for our faculty and students.

- UCalgary is ranked 7th among Canada's top research universities in sponsored research income
- \$117.8 million in Tri-Council research funding in 2021, a 64% increase from 2011
 - o includes more than doubled CIHR funding for UCalgary health research over the last ten years
- Since 2017, UCalgary has been granted a 16% increase in Canada Research Chairs, with a further 16% increase in allotment announced in the most recent national distribution.
- Scholarly publications have grown by 50% between 2011 and 2021
- Sport Injury Prevention Research Centre globally recognized by IOC for injury prevention, athlete health

COMMUNITY IMPACT

UCalgary is growing our innovation ecosystem and strategic partnerships to strengthen communities.

- <u>UCeed</u> is a leading investor 5 funds launched, <u>expected to have created 120 jobs by 2023</u>
- UCalgary partnered with the Alberta Cancer Foundation and Alberta Health Services to launch \$250 million <u>OWN.CANCER</u>
 <u>campaign</u> for the new Calgary Cancer Centre, so far \$177 million has been raised
- Partnered with Alberta's research universities to track evidence of COVID-19 in wastewater provincewide
- Libin Cardiovascular Institute director partners with AHS to <u>send life-saving medical supplies to Ukraine</u>

ONE CHILD EVERY CHILD

UCalgary will ensure kids in Canada are the healthiest, most empowered and thriving in the world.

- \$268 million investment in child health and wellness research
- Largest research grant ever awarded to an Alberta university
- 132 organizations across 25 countries coming together through UCalgary to support kids
 - o Partners like UNICEF, Alberta Children's Hospital Foundation, Azrieli Foundation and more
- Research to focus on 3 key areas:
 - o Better beginnings pregnant women, premature babies and young children
 - o Precision health supporting kids with complex medical needs
 - Vulnerable to thriving children with neurodevelopmental and mental health needs
- Commitment to walking parallel paths with Indigenous elders, scholars and communities

ENERGY

UCalgary is transforming Canada's energy landscape with collaborative, forward-focused research.

- Bridging the gap between discovery and innovation with the \$3.75 million UCEED Energy Fund
- Partnered to create the Energy Transition Centre to transform the energy sector
- More than 300 scholars are actively involved in energy research
 - o Global Research Initiative generating clean tech solutions, reducing our carbon footprint
 - o Steven Bryant holds the Canada Excellence Research Chair in materials and unconventional oil reservoirs
 - o Partnering with governments and businesses to test new ideas like potential in blue hydrogen production
 - o Applying new solutions, develop applications at scale like extracting hydrogen from bitumen

AGRICULTURE

UCalgary is advancing Canada's food security through ag-tech research, public policies and startups.

Faculty of Veterinary Medicine is advancing animal and human health through research

- o Developing tools to stop chronic wasting disease in farm and wild animals
- Vet med scholars skin regeneration discovery could make scar-free healing possible
- UCalgary is doubling vet medicine enrolments to address Alberta's critical vet shortage
 - \$67 million in new provincial dollars in 2022 to expand Doctor of Veterinary Medicine
 - o Includes \$58.5 million for a new facility
 - O Locally trained vets is the only long-term sustainable way to ensure animal care and ag industry in Alberta
- The Simpson Centre connects the agriculture industry to individuals through public policy research
 - o Agriculture and society by investigating populational health and environment
 - Agriculture and economics by exploring sustainable productivity
 - o Agricultural literacy through public education and outreach
- Organoid Manufacturing Platform developed by UCalgary is being used by NASA
 - o Dr. Mark Ungrin created AggreWell which produces organioids NASA is using for space research

QUANTUM SCIENCE

UCalgary's entrepreneurial research approach is advancing quantum science and technology.

- UCalgary partnered with global tech firm Mphasis on Quantum City, a new innovation hub
 - o Mphasis's North America headquarters is coming to Calgary because of the talent here
 - Expanding quantum infrastructure, talent development, commercialization pathways
 - Creating 500-1000 short term jobs with 26,000 jobs across Alberta expected by 2040
- UCalgary is part of the province-wide Quantum Horizons Alberta
 - o A \$25 million project driving world-class quantum research
 - o Partnership with the University of Alberta and University of Lethbridge
- Institute for Quantum Science and Technology works with industry, driving quantum tech
- Canada has the largest investments in quantum companies globally
- With our unique innovation ecosystem, UCalgary takes research and tech investments further

DOWNTOWN REVITALIZATION

UCalgary researchers are creating the bedrock for Calgary's downtown redevelopment.

- School of Architecture, Planning and Landscape's is bringing new life to the city's core
 - UCalgary's <u>Civic Commons Catalyst</u> is supporting downtown revitalization research
 - o Reimagining of the former public library demonstrates new purpose to existing infrastructure

SPACE RESEARCH

UCalgary is the place to study space.

- The University of Calgary is home to national and international leaders in space science, geomatics, communications and satellite systems.
 - Our researchers have been involved in more than 20 space missions including:
 - OSIRIS-REX NASA's mission to Earth-crossing asteroid Bennu to collect samples from the rocky surface
 - CASSIOPE the first Canadian hybrid satellite with a dual mission for telecommunications and research
 - Swarm a European Space Agency mission to study the Earth's magnetic field
- New Earth-Space Technologies (NEST) research strategy investigates how spatial information helps us make decisions about our world.
 - NEST involves research into sensor and sensor webs, global navigation satellite systems, remote sensing, space sciences like planetary astrophysics and geospatial modeling.
- Chancellor Emeritus and alumnus Dr. Robert Thirsk holds the Canadian record for the most time spent in space (204 days, 18 hours)