



UBC Department of Civil Engineering

IMPACT REPORT 2010-2020



THE UNIVERSITY OF BRITISH COLUMBIA

Civil Engineering

CIVIL.UBC.CA

#1

IN CANADA



There's a reason we're #1.

The Department of Civil Engineering at the University of British Columbia is known around the world for our exceptional educational programs, collaborative and cross-disciplinary research, and transformative service to the public. We are consistently ranked at #1 in Canada and among the top forty civil engineering schools worldwide by the *QS World University Rankings*.

Over the past decade, our renowned faculty have provided tremendous

leadership in educational and research activities, as well as formed close and mutually beneficial relationships with industry and government. Moreover, our alumni are leaders in their fields who continue to contribute to the enhancement of our society.

The UBC Department of Civil Engineering Impact Report 2010-2020 provides an overview of the impact of our department over the past decade. This report presents a historical analysis of research areas, publications, industry partnerships,

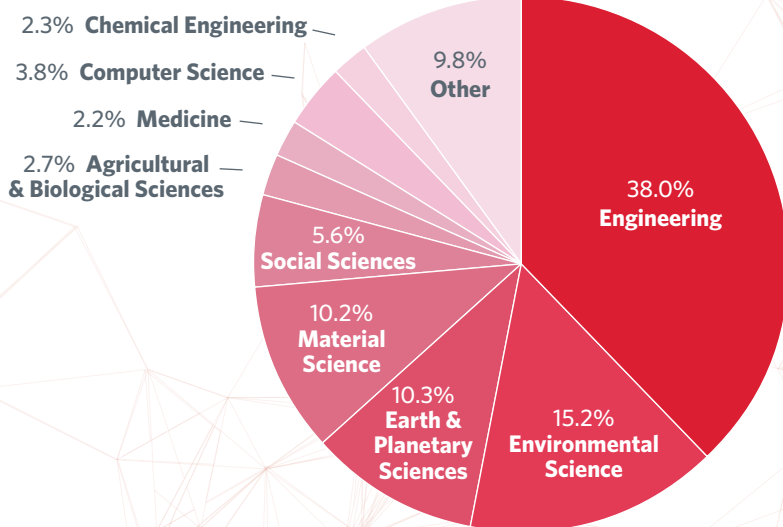
as well as funding success of our faculty. It also highlights the success of our undergraduate and graduate programs using metrics on diversity, enrolment, and career outcomes.

By adopting multidisciplinary engineering approaches to challenges faced by society today, we strive to drive forward the future of civil engineering innovation. Our efforts combine to create a major research and education hub for British Columbia and Canada as well as the opportunity for innovation around the world.

Research

We are widely recognized for being one of Canada's largest and most research intensive civil engineering departments. Over the past decade, researchers at UBC Civil Engineering have published over **1,400** articles with over **40,000** citations in a variety of areas.*

RESEARCH AREAS

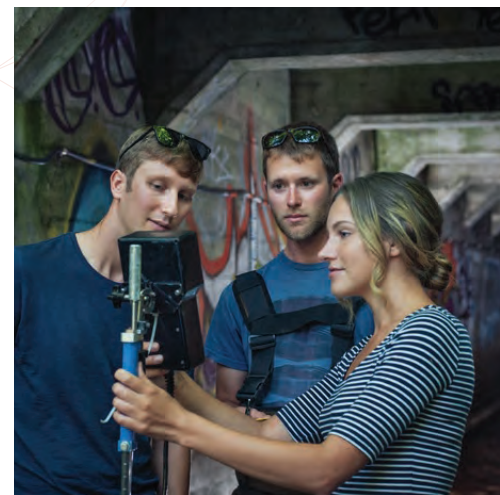
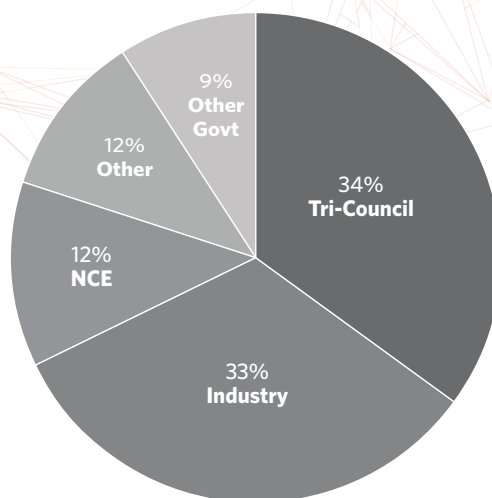


Civil & Structural Engineering	30.7%
Mechanical Engineering	16.8%
Building & Construction	16.5%
General Engineering	8.3%
Mechanics of Materials	8.0%
Safety, Risk, Reliability & Quality	5.3%
Other	4.3%
Computational Mechanics	3.1%
Architecture	2.6%
Automotive Engineering	2.3%
Ocean Engineering	2.1%

FUNDING

UBC Civil Engineering has been successful in attracting **\$70 million** in funding during the past 10 years.

Funding comes from a variety of sources including Tri-Agency (NSERC, SSHRC), Canada Foundation for Innovation, Networks of Centres of Excellence (NCE) and other public and private companies.



*Research data on publications, citations, and research areas from Elsevier SciVal and Scopus. Funding data from UBC Rise Extended Reporting.



Industry

From 2009/10 to 2019/20, industry partnerships made up 33% of total funding or \$23 million.

The internationally-recognized research generated by the Department of Civil Engineering would not be possible without the support of our industry partners.

As the oldest program of its kind in British Columbia, UBC Civil Engineering is dedicated to overcoming society's most complex challenges and our industry partners play a vital role in these efforts. Our faculty and graduate students frequently partner with companies to tackle the biggest challenges in industry and society.

Our industry partners provide our faculty members and students with the tools they need to reach new heights in research. Together, we amplify our shared resources and generate cutting-edge innovations that will leave a lasting impact on our future.

- Alliance Pipeline Limited Partnership
- Baker Hughes Inc.
- BC Hydro
- BC Oil and Gas Commission
- BuiltSpace Technologies Inc.
- Canada Space Agency
- CISCO Systems Canada
- City of Vancouver
- Environment Canada
- Ford Motor Company
- Fortis BC Energy
- FPInnovations
- GE Global Research
- Golder Associates
- Gracom Masonry
- Ledcore Pipeline Limited
- Metro Vancouver
- Stantec Consulting
- Syncrude Canada
- Terasen Gas
- Transcanada Pipeline Limited
- Transport Canada
- Tricon Concrete Finishing

Student Enrolment

Whether as an undergraduate or a graduate student, the academic experience at UBC Civil Engineering is enriched by a focus on multidisciplinary, hands-on approach to learning, delivered by a world-class faculty and supportive academic advisors.

Undergraduates enter the program in their second year, and are exposed to a variety of sub-disciplines, culminating in capstone courses in the fourth year requiring them to apply their knowledge to a significant real-world civil engineering design project.

At the graduate level, we offer two course-based degrees, MEng and MEL^{*}, and two research-based degrees, MASc and PhD, across eight specializations.

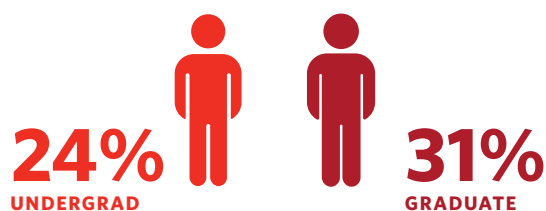
UNDERGRADUATE

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Year 2	131	130	132	138	137	147	142	141	130	140
Year 3	210	214	207	215	221	218	226	231	218	213
Year 4	153	166	173	144	150	156	175	169	184	181

GRADUATE

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MASc	87	91	91	96	84	108	103	82	74	65
MEng	140	113	88	86	87	84	121	107	95	125
PhD	78	79	68	70	63	62	73	79	71	70

FEMALE STUDENTS



AVERAGE PER YEAR, 2010-2019

INTERNATIONAL STUDENTS

BASc	13%
MASc	59%
MEng	54%
PhD	69%

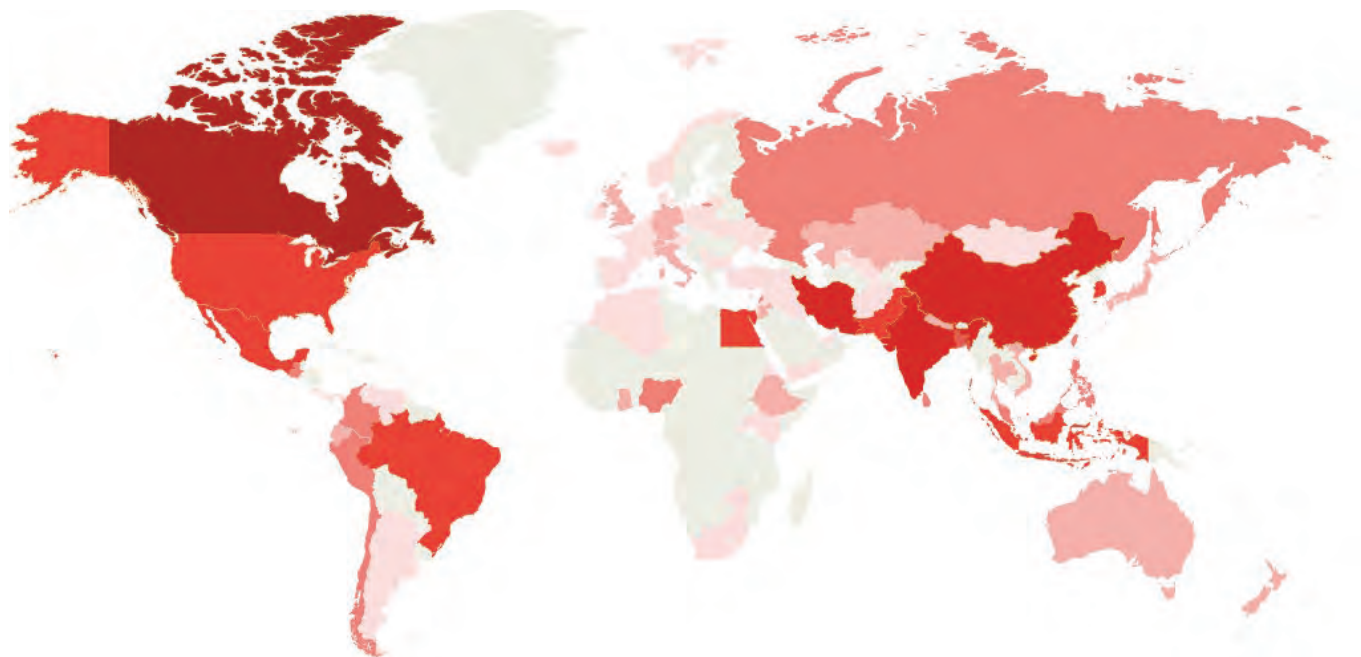
AVERAGE PER YEAR, 2010-2019

^{*}To learn more about the Master of Engineering Leadership (MEL) program please visit mel.ubc.ca.



Student Enrolment

BY COUNTRY OF CITIZENSHIP*



COUNTRY OF CITIZENSHIP # STUDENTS

Canada	1902
China	423
Iran	202
India	187
USA	40
Bangladesh	34
Indonesia	33
Mexico	29
Egypt	29
Korea	26
Pakistan	23
Brazil	22
Philippines	13
Malaysia	13
Peru	12
Sri Lanka	12
Guatemala	11
Hong Kong	11
Lebanon	10
Nigeria	10
Colombia	10

Chile	10
Russia	10
Taiwan	10
Germany	9
Kazakhstan	9
United Kingdom	8
Ecuador	8
Thailand	8
New Zealand	7
Australia	7
Italy	7
Nepal	6
Singapore	6
Ghana	6
Japan	6
Jordan	6
Ethiopia	5
Palestine	5
Switzerland	5
Vietnam	5
Turkey	4

Tanzania	4
Iraq	3
Norway	3
Algeria	2
Ireland	2
Spain	2
Costa Rica	2
Mongolia	2
Isle of Man	2
Ukraine	2
Denmark	2
South Africa	2
Panama	2
Belgium	2
Argentina	2
Syria	2
France	2
Morocco	2
Poland	2
Uganda	2
Iceland	2

Netherlands	2
Serbia	2
Kenya	2
Macao	2
Venezuela	1
Afghanistan	1
Eritrea	1
Bulgaria	1
Swaziland	1
Lithuania	1
Yemen	1
Zimbabwe	1
Austria	1
United Arab Emirates	1
Mauritius	1
Uzbekistan	1
Brunei	1
Cyprus	1
Trinidad	1
Israel	1
Macedonia	1
Kuwait	1

*Data based on student records available on UBC Student Information Service Centre (SISC). Note that students with permanent residency are considered domestic students for enrolment purposes, but are not considered Canadian citizens.



Employment Outcomes

Graduates from UBC Civil Engineering have found employment in the private, public, higher education, and not-for-profit sectors.

UNDERGRADUATE

AECOM	City of Langford	JRS Engineering
Allnorth Consultants Limited	City of Vancouver	Kerr Wood Leidal Associates
Associated Engineering	EllisDon	Kiewit
Ausenco	Emil Anderson Construction	Klohn Crippen Berger
BC Building Science	Fast + Epp	Knight Piesold
BC Hydro	Flatiron Construction	KO Structural Engineering
BC Ministry of Transportation and Infrastructure	GeoStabilization International	Lafarge Canada
Binnie	Golder Associates	Lehigh Hanson
Bunt & Associates	Government of British Columbia	Metro Vancouver
City of Calgary	Graham	Parsons Corporation
	Hall Constructors Corp	PCL Construction

GRADUATE

MASc

Apple
Ausenco
City of Vancouver
Glotman Simpson Consulting
Metro Vancouver
Ocean Wise
SNC-Lavalin
Stantec
Teck Resources Limited
Wood

MEng

AECOM
Boreal Water Resources Ltd.
Dynamic Structures
Golder Associates
Integral Group
PCL Construction
PwC
TELUS
Tetra Tech
TransLink

PhD

BC Hydro
BC Ministry of Transportation
Carleton University
General Electric
McMaster University
Oracle Labs
RJC Engineers
Stanford University
Thurber Engineering
University of Toronto



Get in touch.

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Please visit our website for more information:

<https://www.civil.ubc.ca/admissions/graduate-admissions>

- **Description of our graduate programs**
 - <https://www.civil.ubc.ca/academic-programs/graduate-program/degrees>
- **Program duration**
 - MEng: 1-2 years
 - MASc: ~2 years
 - PhD: ~4-5 years
- **# of students accepted per year**
 - Varies depending on number and quality of applications (~80-100 across all 3 programs; largest cohort being our MEngs)
- **# of credits of course work**
 - MEng: 30 credits
 - MASc: 18 credits (or more)
 - PhD: 30 credits
- **Possible areas of concentration**
 - Civil Engineering Materials
 - Environmental Fluid Mechanics
 - Environmental Systems Engineering
 - Geo-Environmental Engineering
 - Geotechnical Engineering
 - Hydrotechnical Engineering
 - Project & Construction Management
 - Structural & Earthquake Engineering
 - Transportation Engineering
- **Admission requirements**
<https://www.civil.ubc.ca/admissions/graduate-admissions/requirements>