

Canadian Engineers for Tomorrow

Trends in Engineering Enrolment and Degrees Awarded 2010-2014

Table of Contents

Message from the Chief Executive Officer	3
Acknowledgements	4
Foreward	4
Highlights	5
UNDERGRADUATE ENROLMENT TRENDS	5
POSTGRADUATE ENROLMENT TRENDS	8
Introduction	9
Undergraduate Student Enrolment and Degrees Awarded	10
UNDEGRADUATE STUDENT ENROLMENT	10
UNDEGRADUATE ENROLMENT BY PROGRAM	10
UNDEGRADUATE ENROLMENT BY PROVINCE	11
UNDEGRADUATE ENROLMENT BY GENDER	12
UNDEGRADUATE ENROLMENT OF INTERNATIONAL (VISA) STUDENTS	13
UNDEGRADUATE DEGREES AWARDED	14
Post-Graduate Enrolment and Degrees Awarded	15
GRADUATE STUDENTS ENROLMENT	15
POSTGRADUATE ENROLMENT BY PROGRAM	16
POSTGRADUATE ENROLMENT BY GENDER	17
POSTGRADUATE ENROLMENT OF INTERNATIONAL (VISA) STUDENTS	17
POSTGRADUATE DEGREES AWARDED	18
Faculty Members	19
Appendix A	20
DATA TABULATIONS - ENGINEERING ENROLMENT AND DEGREES AWARDED	20
SCHOOL NAME AND ACRONYMS	20
PROVINCE NAME AND ABBREVIATION	21
A.1. UNDERGRADUATE STUDENT ENROLMENT	21
U.1. National	21
U.2. Provincial	23
U.3. Institutional	25
A.2. UNDEGRADUATE DEGREES AWARDED	28
UD.1. National	28
UD.2. Provincial	28
UD.3. Institutional	30
A.3. POSTGRADUATE STUDENT ENROLMENT	33
G.1. National	33
G.2. Provincial	35
G.3. Institutional	37
A.4. POSTGRADUATE DEGREES AWARDED	43
GD.1. National	43
GD.2. Provincial	45
GD.3. Institutional	47
A.5. FACULTY MEMBERS BY INSTITUTION AND DISCIPLINE	51
F.1. Faculty Composition	51
A.6. CO-OP, INTERNSHIP AND PROFESSIONAL EXPERIENCES PROGRAMS	52
C.1. Industry Experience Options by Institution	52
Appendix B	53
ACCREDITED ENGINEERING PROGRAMS BY INSTITUTION	53
Appendix C	59
CANADIAN DISCIPLINE CATEGORIES AS USED IN THIS REPORT	59
Appendix D	62
ASSOCIATED UNIVERSITIES EXPLAINED	62
Appendix E	63
SURVEY PROCEDURES AND DATA COMPILATION METHODOLOGY	63

Message from the Chief Executive Officer



Engineers Canada is pleased to publish its summary of trends in engineering education in Canada. The report includes results for all academic terms from the calendar year 2010 through 2014.

Accredited undergraduate engineering programs continue to report strong growth in the number of students pursuing an engineering education. Total undergraduate enrolment rose to 75,657 students, reflecting an increase of 4.6% from 2013 and 23.0% from 2010. However, postgraduate enrolment decreased 2.5% from 2013 to 22,899 students. This is still an overall increase of 7.9% from 2010.

Canadian engineering programs continue to be a popular choice for international students. At the undergraduate level, visa students increased by 49.6% from 2010 to account for 15.0% of total enrolment. Similarly, postgraduate visa students increased by 53.0% from 2010 to account for a considerably larger share of 53.1% of total graduate students.

After reaching its peak of 20.6% in 1999, the share of women in undergraduate programs decreased significantly to 17.8% in 2008. However, female representation has increased steadily each year to reach 19.1 % this year. The proportion of women in postgraduate enrolment is slightly higher at 24.1%. It is encouraging that the number of degrees awarded continues to grow along with student enrolment. A total of 13,876 degrees were awarded to undergraduate students. This is an increase of 3.8% from 2013 and 20.3% from 2010. Master's degrees awarded have increased by 45.4% since 2010 compared to 32.0% for doctorates awarded over the same period.

The Enrolment and Degrees Awarded Report highlights another stable year.

A handwritten signature in black ink, appearing to read 'Kim Allen', written in a cursive style.

Kim Allen, FEC, P.Eng.

CHIEF EXECUTIVE OFFICER
ENGINEERS CANADA

It is encouraging that the number of degrees awarded continues to grow along with student enrolment

Acknowledgements

Engineers Canada gratefully acknowledges the contribution of data and information from the deans and associate deans of the engineering and applied science faculties at Canadian higher education institutions.

Foreword

Each year, Engineers Canada gathers data on student enrolments and graduations from Canada's higher education institutions. This report analyzes trends in engineering student enrolment within accredited engineering programs across the nation.

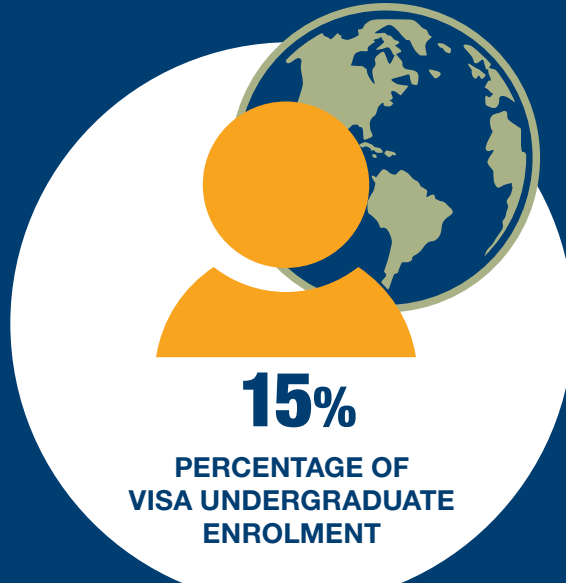
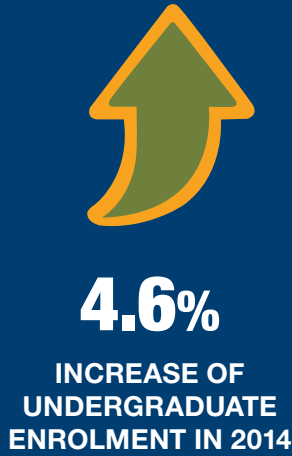
Understanding these trends enables Engineers Canada and other members of the profession to:

- Compare patterns in the changing number of students who enrol in and graduate from the various engineering programs offered in the provinces;
- Assess the number of women and visa students who are pursuing engineering and education; and
- Exchange pertinent information about similar and distinctly different trends across disciplines and institutions.

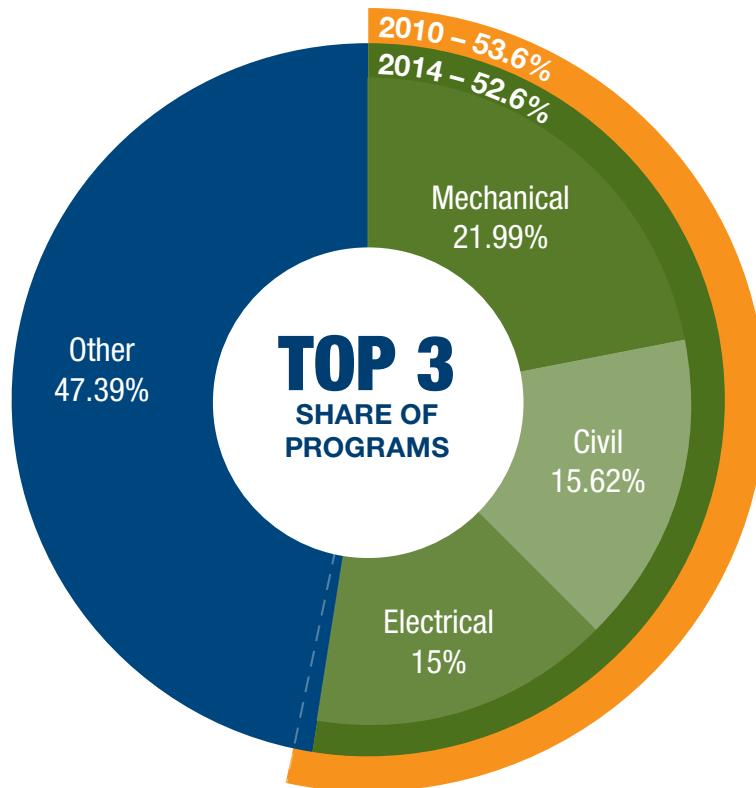
Cover Image Credit: University of Toronto Engineering/Roberta Baker
Prepared by Camilla Zhang.

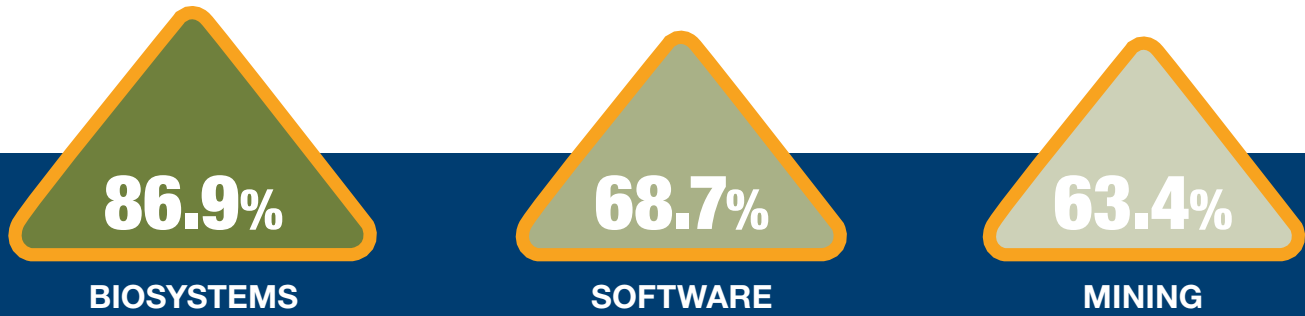
Highlights

Undergraduate Enrolment Trends

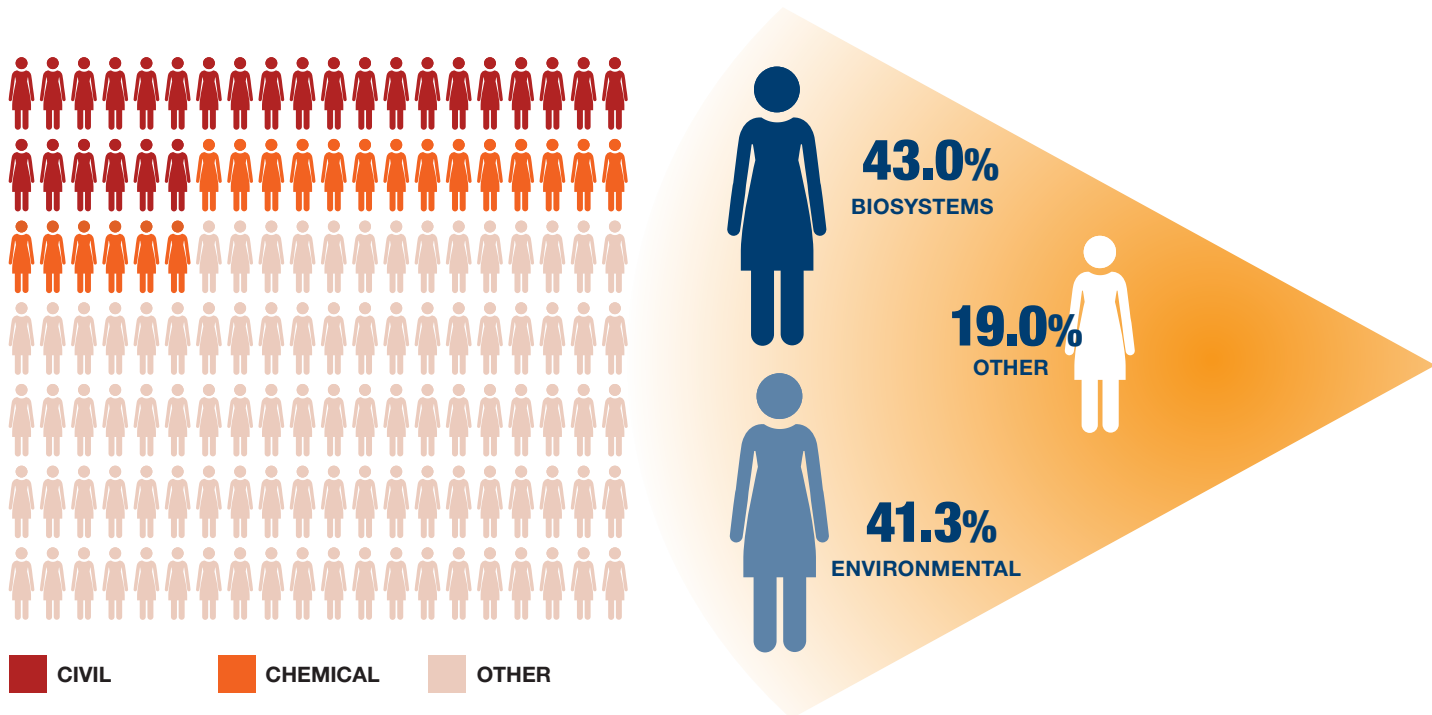


The highest shares of undergraduate programs continue to be mechanical (22.0%), civil (15.6%) and electrical engineering (15.0%). These three account for 52.6% of total undergraduate enrolment. This is a decrease from 53.6% in 2010, suggesting decreasing popularity in the three programs.



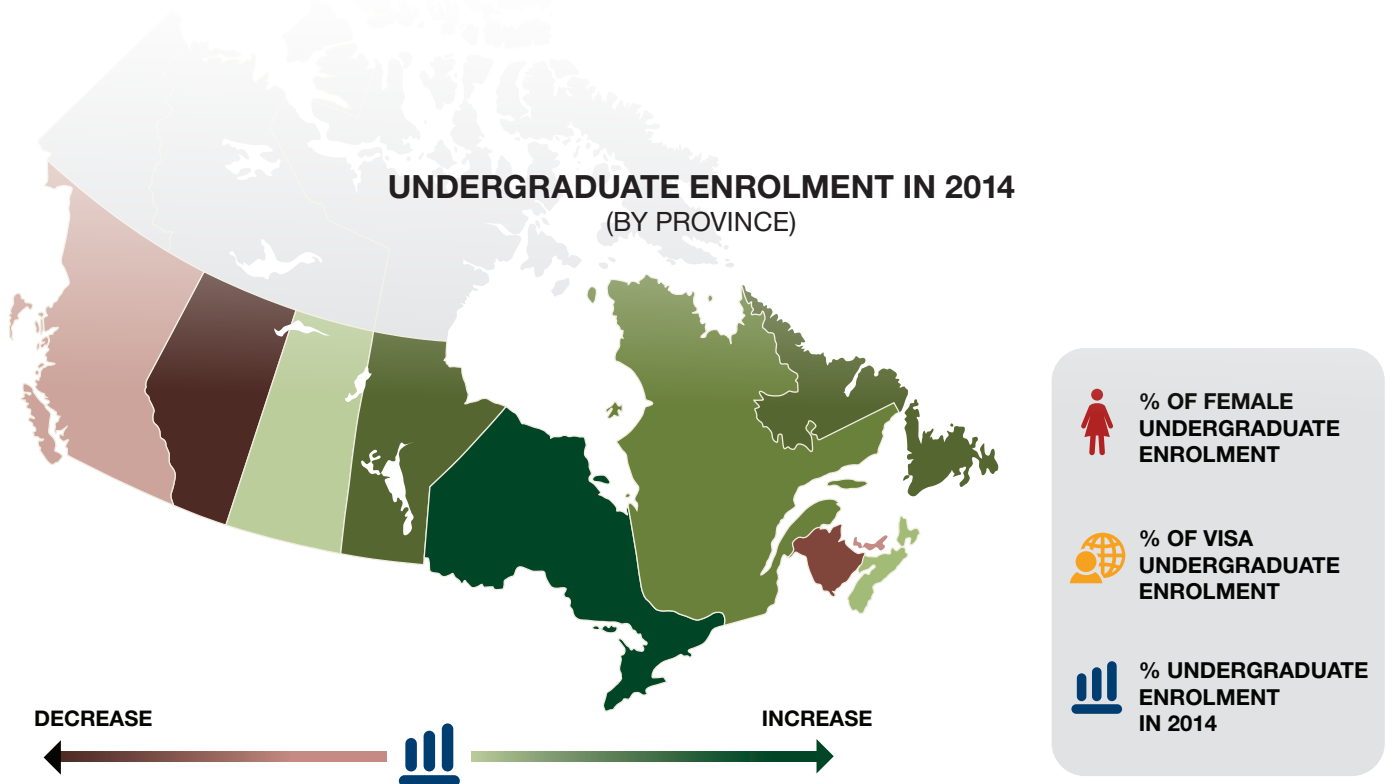


Since 2010, the most rapidly growing engineering disciplines have been biosystems engineering (86.9%), software engineering (68.7%) and mining or mineral engineering (63.4%). Disciplines that have been decreasing include year one/two common (-1.7%) and materials or metallurgical engineering (-2.2%). Civil engineering has been growing the slowest since 2010 (13.6%), but reported a decrease of -1.2% from 2013. It will be important to watch this shift in the coming years.



Although civil and chemical engineering reports the highest number of female undergraduate students enrolled, biosystems and environmental engineering have the highest proportion of female enrolment. Consequently, enrolment trends in biosystems and environmental engineering more closely reflect societal demographics (43.0% and 41.3%, respectively). These are examples of disciplines achieving near parity for male and female enrolment.

In 2014, enrolment of visa undergraduate students increased by 5.6%. This increase accounts for 18.1% of the overall increase in undergraduate enrolment (4.6%). Moreover, the increase of 3,319 undergraduate enrolments was made up by 602 visa students. In 2013, the increase in visa students accounted for 39.9% of the overall increase. This suggests growth of visa undergraduate enrolment is slower.



Province	% of Female Undergraduate Enrolment	% of Visa Undergraduate Enrolment	% Undergraduate Enrolment in 2014
British Columbia	18.0%	17.0%	-3.2%
Alberta	22.4%	11.1%	-20.7%
Saskatchewan	20.4%	22.3%	0.4%
Manitoba	18.5%	18.6%	5.0%
Ontario	19.4%	14.2%	12.5%
Quebec	17.9%	13.8%	6.3%
Nova Scotia	19.3%	24.0%	4.3%
New Brunswick	18.1%	23.9%	-6.9%
Prince Edward Island	8.3%	25.0%	-4.8%
Newfoundland and Labrador	24.3%	10.3%	5.5%

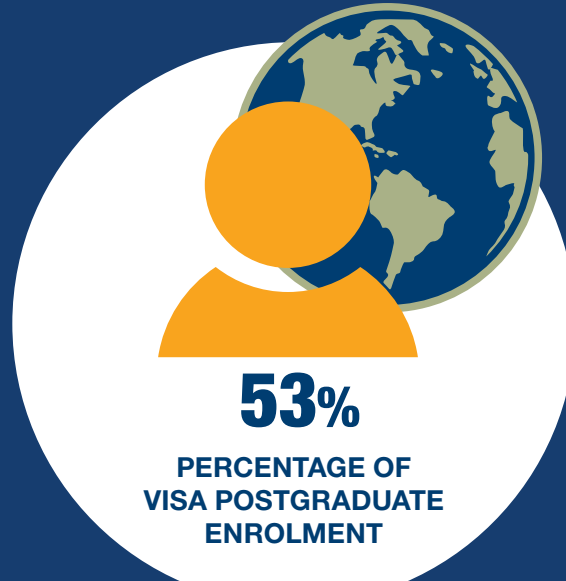
Ontario and Québec continue to have the highest proportion of undergraduate enrolment (45.1% and 26.2% respectively). Both provinces also have the largest increase in enrolment from 2013 (12.5% and 6.3% respectively). However, Manitoba and Nova Scotia have the largest cumulative gain from 2010 (36.3% and 33.1% respectively).

Newfoundland continues to have the highest percentage of female undergraduate students at 24.3%. The proportion of female students has decreased drastically in PEI, from 14.3% in 2013 to 8.3% in 2014.

The east coast reported the highest proportion of visa undergraduate students: PEI at 25.0%, Nova Scotia at 24.0% and New Brunswick at 23.9%.

Postgraduate Enrolment Trends

2.5%
DECREASE OF
POSTGRADUATE
ENROLMENT IN 2014



In 2014, postgraduate programs reported a decrease in enrolment (**2.5%**), especially in part time master's programs. However, visa students increased **11.4%** from 2013, accounting for **53.0%** of graduate enrolment, indicating that Canadian postgraduate engineering programs remain attractive abroad. Female postgraduate students continue to rise (**24.1%** in 2014).



The results highlight enrolment trends by discipline and institution, as well as the number of undergraduate and postgraduate degrees awarded each year.

Introduction

The Engineering Enrolment and Degrees Awarded Report is an annual examination of Canada's undergraduate and postgraduate post-secondary engineering programs that evaluates trends in part- and full-time student enrolment and degrees awarded over a five-year period. In 2014, 49 universities provided information on their enrolment, programs and degrees awarded.¹

The results highlight enrolment trends by discipline and institution, as well as the number of undergraduate and postgraduate degrees awarded each year. These results reveal trends specific to discipline, education and

gender, as well as the number of engineering graduates available to enter the labour market, international students' participation in Canadian engineering education, and students studying in co-op programs. Enrolment trends in undergraduate, master's and PhD levels are compared, along with men and women studying and graduating from engineering programs.

Data is provided by higher education institutions to Engineers Canada. Engineers Canada compiles the information in this report. Findings are then shared with Engineers Canada's stakeholders and with the public.

¹ The method for determining enrolment changed in 2006 in the following ways: (1) Prior to 2006, universities provided the fall enrolment numbers for full-time students. Starting in 2006, faculties were asked to calculate average enrolment levels that took into account registrations in all three terms of the year (fall, winter and summer). This change caused an increase in reported enrolment for some institutions and a decrease in reported enrolment for others, while some institutions showed no significant changes in enrolment numbers as a result of the change. (2) Figures from 2006 onward are expressed in full-time equivalents (FTEs). For example, if the full-time course load is six courses, then a student taking only two courses is included as 0.33 FTE. In the past, students taking a partial course load were not included in the enrolment figures. This second change caused reported numbers to increase for the average institution. It is not possible to quantify the relative impacts of these changes and, as a consequence, it is not possible to determine the net impact on measured enrolment between 2005-2006.

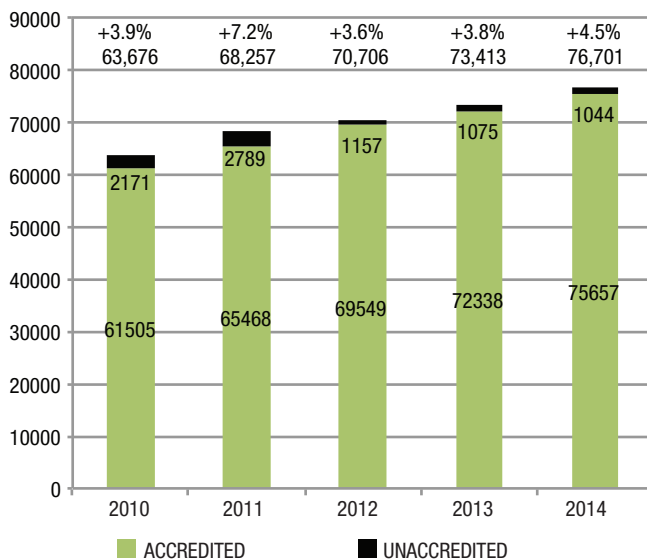
Undergraduate Student Enrolment and Degrees Awarded

UNDERGRADUATE STUDENT ENROLMENT

Undergraduate enrolment in accredited engineering programs continues to rise, reaching 75,657 students in 2014². This is an increase of 4.6% from 2013 and 23.0% from 2010. Refer to Appendix A for more detailed data tabulations corresponding to each chart.

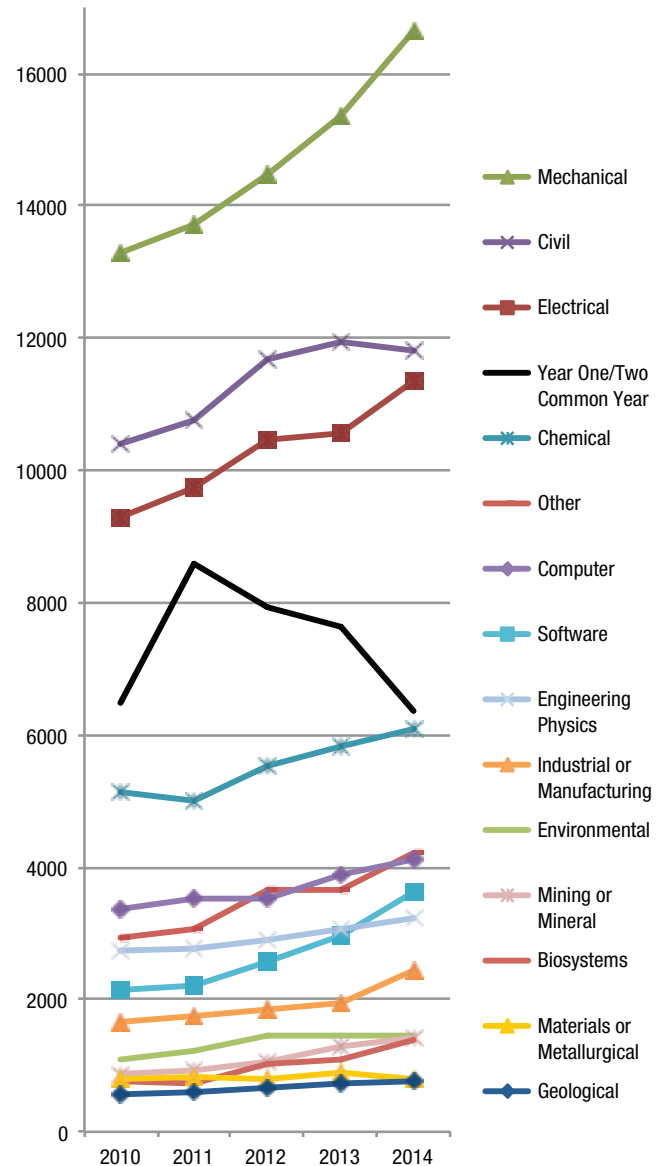
Chart 1 shows undergraduate enrolment in engineering programs, including students enrolled in unaccredited programs. The number of undergraduate engineering students in both accredited and unaccredited programs totals 76,701 in 2014. This reflects an increase of 4.5% from 2010.

CHART 1.1 - UNDERGRADUATE ENROLMENT (ALL PROGRAMS, FTE)



UNDERGRADUATE ENROLMENT BY PROGRAM³

CHART 1.2 - UNDERGRADUATE ENROLMENT BY PROGRAM



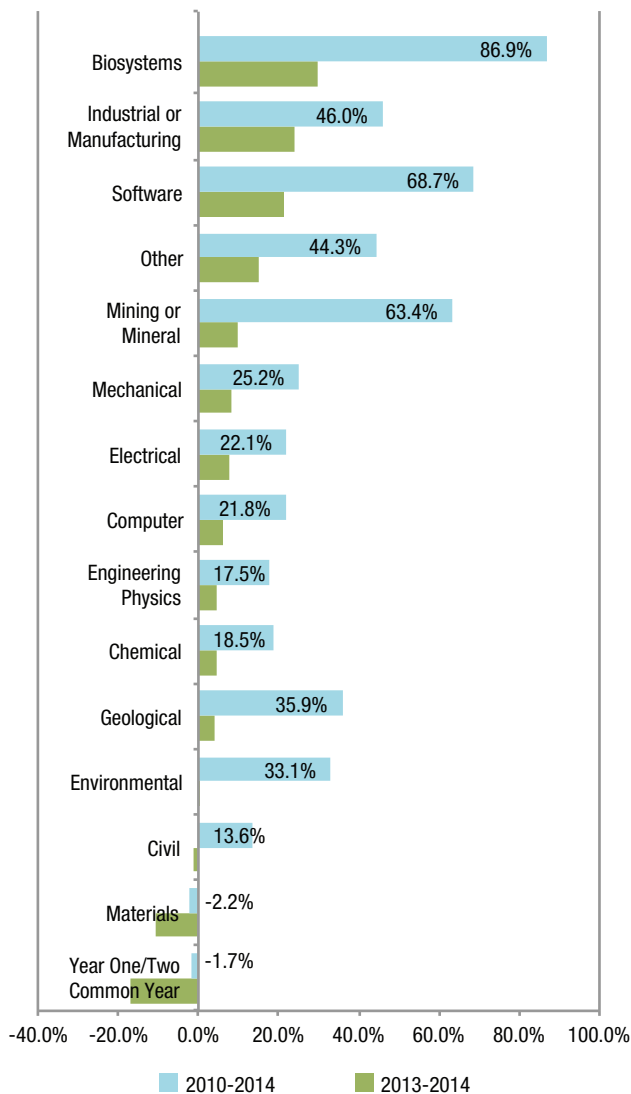
² Accredited programs are programs that are recognized by the Canadian Engineering Accreditation Board as meeting the educational standard required by candidates for P.Eng. designation.

³ This section and all following sections refer only to enrolment in currently accredited programs.

UNIVERSITY OF BRITISH COLUMBIA – OKANAGAN had complications submitting 2014 undergraduate enrolment information. This data was submitted after the production of the reporting materials and is included here for reference. However, all information reflected later in the report does not contain a count of these students.

	CIVIL	ELECTRICAL	MECHANICAL	YEAR ONE - COMMON	TOTAL
Canadian Male	127	50	151	190	518
Canadian Female	23	8	13	49	93
Visa Male	5	5	9	25	44
Visa Female	3	0	1	4	8
Total	158	63	174	268	663

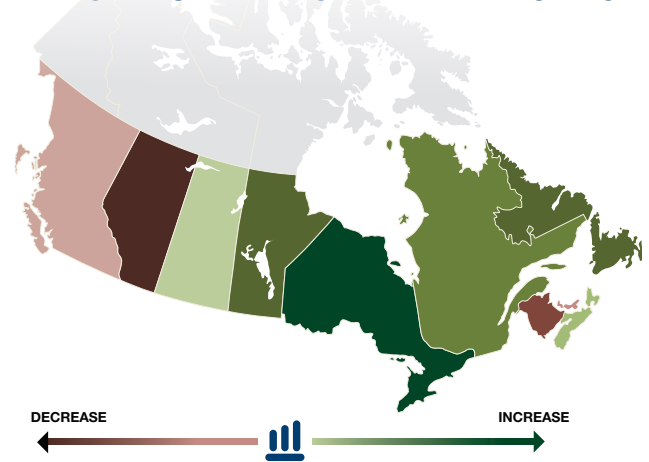
CHART 1.3 - UNDERGRADUATE ENROLMENT GROWTH BY PROGRAM (FTE)



highest share of enrolment, accounting for 52.6% of undergraduates. However, this share has decreased from 53.6% in 2010, suggesting a declining popularity in the three, particularly as there has been steady growth in other programs. Chart 1.3 compares the enrolment growth of each discipline since 2010 and 2013. Biosystems engineering shows the most growth. The discipline has seen enrolment grow 29.8% from 2013 and 86.9% since 2010. Software engineering has the second highest cumulative growth from 2010 (68.7%). Since the last report, industrial/manufacturing engineering has the highest enrolment growth from 2013 (23.9%). By contrast, Year One/Two Common and materials engineering have decreased the most from 2013. From 2013, these programs decreased by 16.7% and 10.5% respectively.

The growth trends from 2010 and 2013 are consistent among most programs, except civil engineering, which presents a decrease from 2013 (down 1.2%), but an overall increase from 2010 (up 13.6%). It will be important to watch this shift in the coming years.

UNDERGRADUATE ENROLMENT BY PROVINCE



Ontario and Québec continue to have the highest proportion of undergraduate enrolment, with 45.1% and 26.2% of total enrolment, respectively. Both provinces also have the largest increase in enrolment from 2013, 12.5% and 6.3%, respectively. However,

Chart 1.2 illustrates the trends in undergraduate enrolment by program. Mechanical, civil and electrical engineering continue to represent the

Manitoba and Nova Scotia have largest cumulative gain from 2010, 36.3% and 33.1%, respectively.

By contrast, Alberta has the largest decrease both from 2013 (-20.7%) and cumulatively from 2010 (-14.4%). Although Prince Edward Island has a decrease of 4.8% from 2013, it also has an overall cumulative gain of 20.0% from 2010.

At 24.3%, Newfoundland and Labrador continues to have the highest percentage of female undergraduates, although this has decreased from 25.9% in 2013. Most provinces either remained relatively the same or the proportion of female students has increased. Prince Edward Island is the exception, where the proportion of female students has decreased drastically from 14.3% in 2013 to 8.3% in 2014.

Three of the Maritime Provinces hold the largest proportion of visa students: Prince Edward Island at 25.0%, Nova Scotia at 24.0% and New Brunswick at 23.9%. Newfoundland and Labrador and Alberta have the lowest proportion of visa students, 10.3% and 11.1% respectively.

UNDERGRADUATE ENROLMENT BY GENDER

In conjunction with undergraduate student enrolment, female enrolment continues to rise, reaching 14,468 undergraduate students this year. This accounts for 19.1% of total undergraduate students.

The share of women in undergraduate enrolment peaked in 2001 at 20.6%, but has been increasing steadily since 2008. The number of female students has increased by 5.0% from 2013. Chart 1.4 illustrates the female undergraduate enrolment trend from 1999.

CHART 1.4 - UNDERGRADUATE ENROLMENT BY GENDER (FTE)

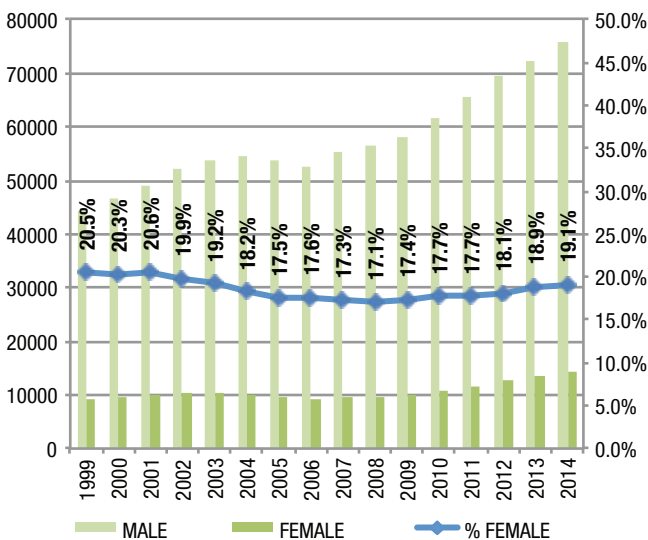
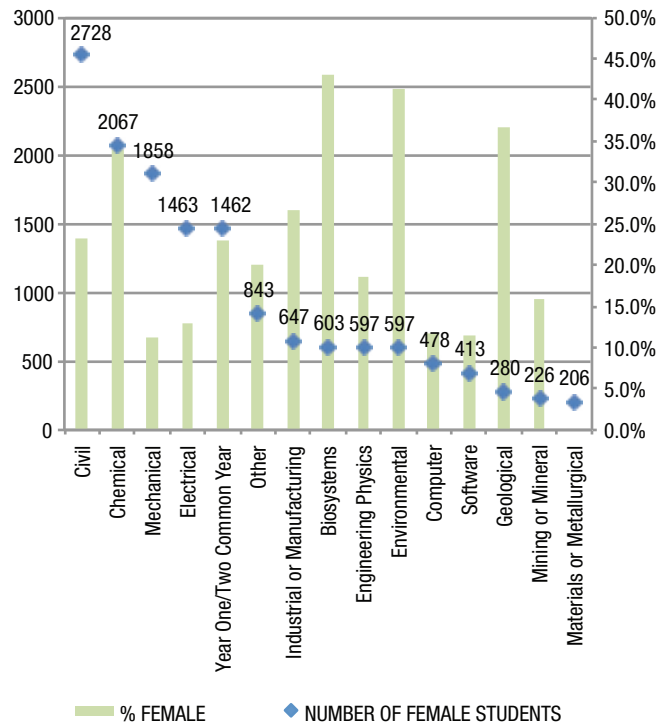


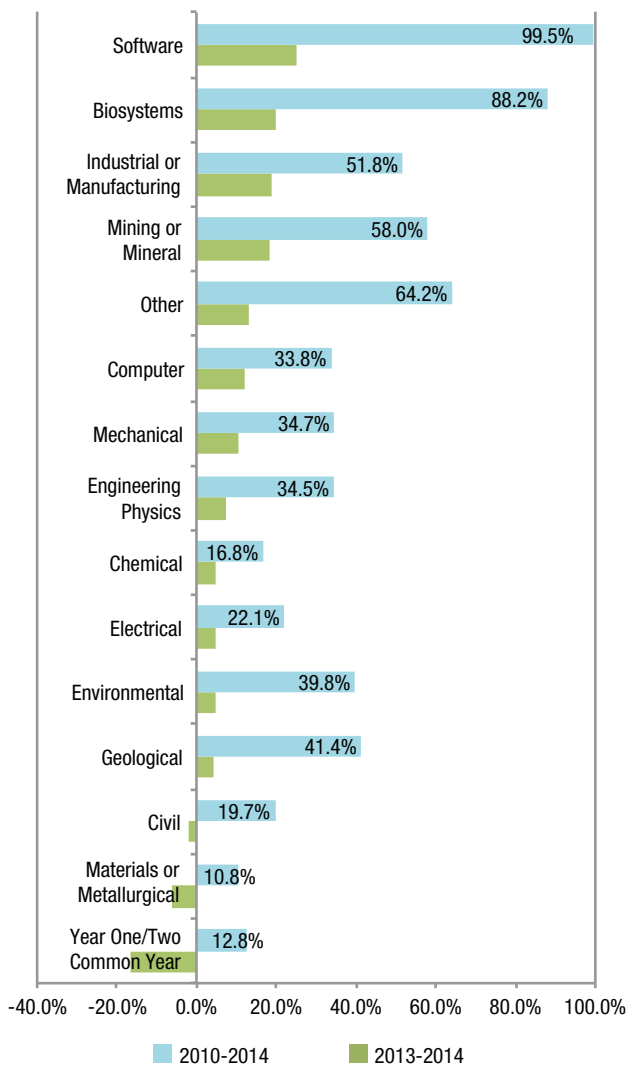
Chart 1.5 illustrates notable differences in enrolment patterns by gender across programs. Civil and chemical engineering continue to have the highest number of females, at 2,728 and 2,067 students, respectively. However, biosystems and environmental engineering have the highest proportion of females, at 43.0% and 41.3%, respectively. Although mechanical engineering has the third highest number of female students, it reported the lowest proportion of females at 11.2%. Materials and metallurgical engineering have the lowest number of female students, consistent with total undergraduate enrolment trends.

CHART 1.5 - FEMALE UNDERGRADUATE ENROLMENT BY PROGRAM



As shown in Chart 1.6, trends in female undergraduate growth by discipline correspond relatively well with total undergraduate trends, with software, biosystems and industrial/manufacturing engineering growing the most. Materials engineering and common first and second year have decreased most significantly. Software engineering shows the largest growth from 2013 and the greatest cumulative gain of female students since 2010, 25.2% and 99.5% respectively.

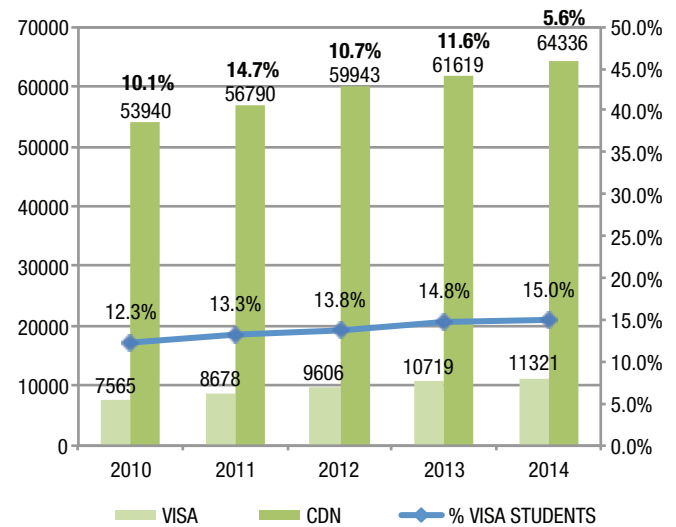
CHART 1.6 - FEMALE UNDERGRADUATE ENROLMENT GROWTH BY PROGRAM



UNDERGRADUATE ENROLMENT OF INTERNATIONAL (VISA) STUDENTS

Chart 1.7 shows the number and proportion of visa students, as well as their yearly growth. The number of Visa students⁴ continues to rise to reach 11,321 undergraduate students, accounting for 15.0% of total undergraduate students. Although this is an overall cumulative gain of 49.6% from 2010, it is only a 5.6% increase from 2013. This is considerably less than the growth rate of previous years. This increase accounts for 18.1% of the overall increase in undergraduate enrolment from 2013. This is significantly lower than from 2012 to 2013, where the increase in visa students accounted for more than 39.9% of the overall increase. This reinforces the slowing growth of visa students in undergraduate enrolment.

CHART 1.7 - UNDERGRADUATE ENROLMENT OF VISA STUDENTS

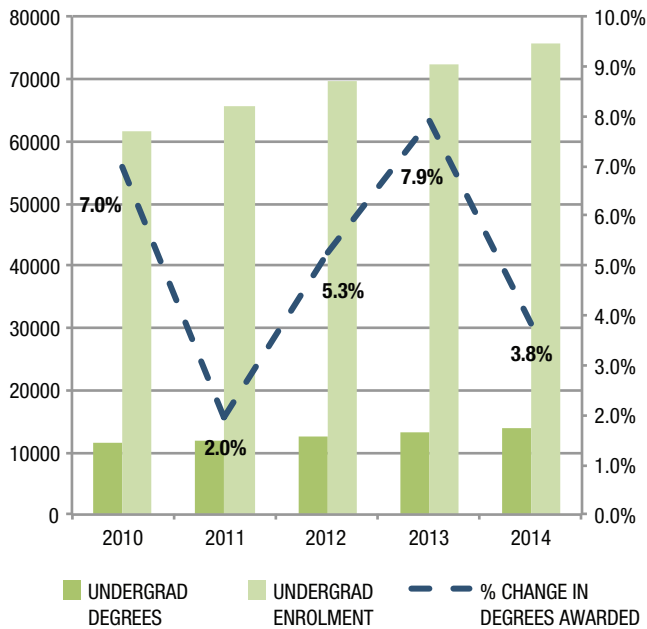


⁴ Visa students are defined as individuals who enter Canada under the “Student Visa” category.

UNDERGRADUATE DEGREES AWARDED

Since 2010, the number of undergraduate degrees awarded increased by 20.3% to reach 13,876 in 2014. This is slightly lower than the increase in undergraduate enrolment over the same period (23.0%). The yearly growth of undergraduate degrees awarded fluctuates more drastically in comparison to undergraduate enrolment trends (see Chart 1.1), as illustrated in Chart 1.8.

CHART 1.8 - UNDERGRADUATE DEGREES AWARDED



The proportion of degrees awarded to females increased to 19.0% of total degrees awarded from 2013. Chart 1.9 highlights the trends of female degrees awarded. Over the five years, the share of female undergraduate enrolment averaged 18.3%. This is consistent and is not suggestive of any significant gender differences in completion rates.

CHART 1.9 - UNDERGRADUATE DEGREES AWARDED BY GENDER

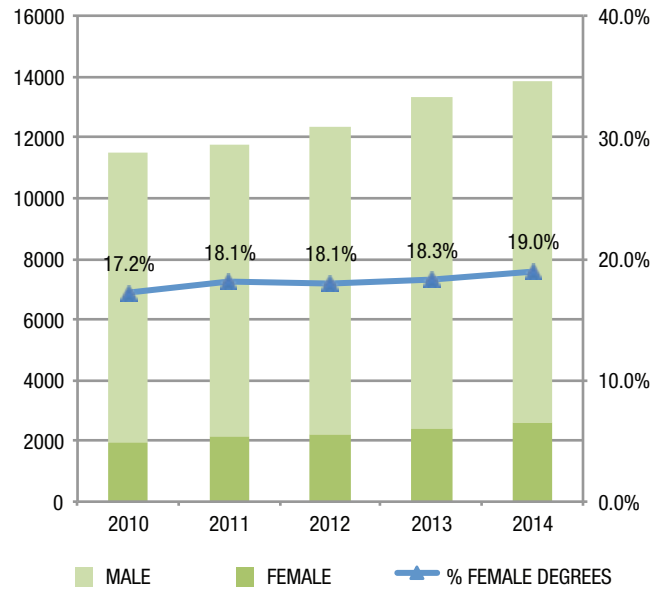
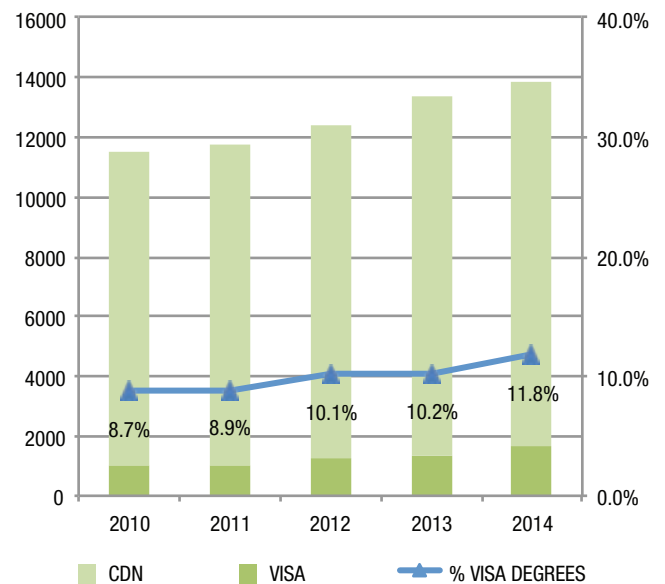


Chart 1.10 presents the trends of visa degrees awarded and shows an increase in the proportion of degrees awarded to visa students to 11.8% in 2013. However, visa undergraduate enrolment accounts for an average of 13.8% over the five years. This slight divergence is suggestive of difficulty in completion rates or the result of visa students transitioning immigration status during their time of study.

CHART 1.10 - UNDERGRADUATE DEGREES AWARDED BY VISA STUDENTS



Postgraduate Enrolment and Degrees Awarded

GRADUATE STUDENTS ENROLMENT

Unlike undergraduate enrolment, graduate student enrolment has declined 2.5% from 2013 to 22,899 students. The majority of the decline results from enrolment in master's programs, especially a decrease in part-time enrolment. Part-time master's students accounted for 14.2% of the 13,809 master's students. This is down significantly from 19.5% in 2010 and 17.6% in 2013. (The part-time share of master's students peaked in 2006 at 22.5%).

Doctoral student enrolment experienced a less drastic decline, decreasing 0.1% to 9,090 students. Part-time doctoral students accounted for 3.7%, which is a smaller proportion than the 4.0% to 5.0% reflected in previous years. Chart 2.1 illustrates the trends in part-time and full-time enrolment in master's and doctoral programs.

CHART 2.1 - POSTGRADUATE ENROLMENT

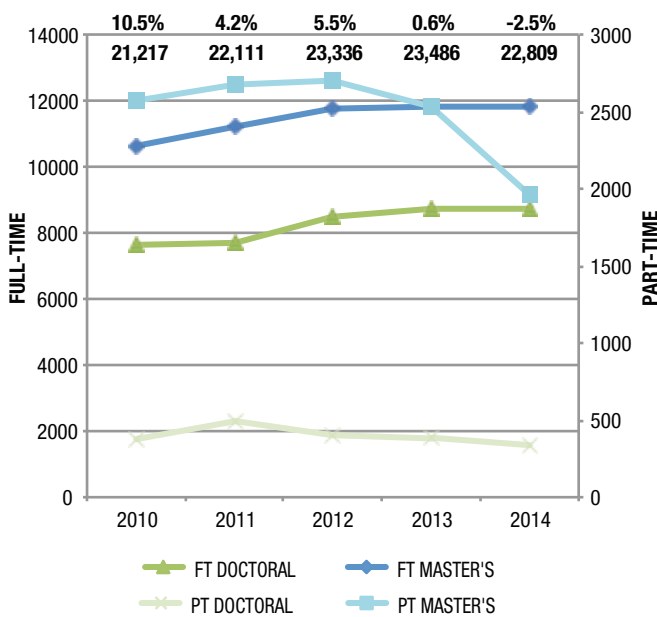


CHART 2.2 - MASTER'S ENROLMENT BY PROGRAM

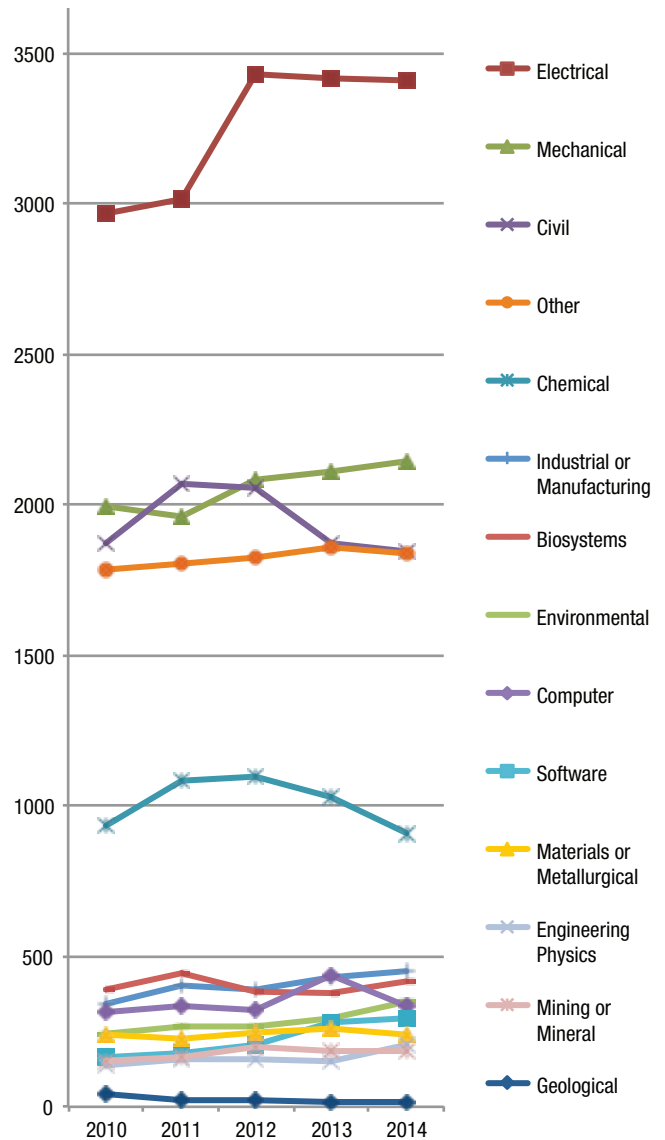


CHART 2.3 - DOCTORAL ENROLMENT BY PROGRAM

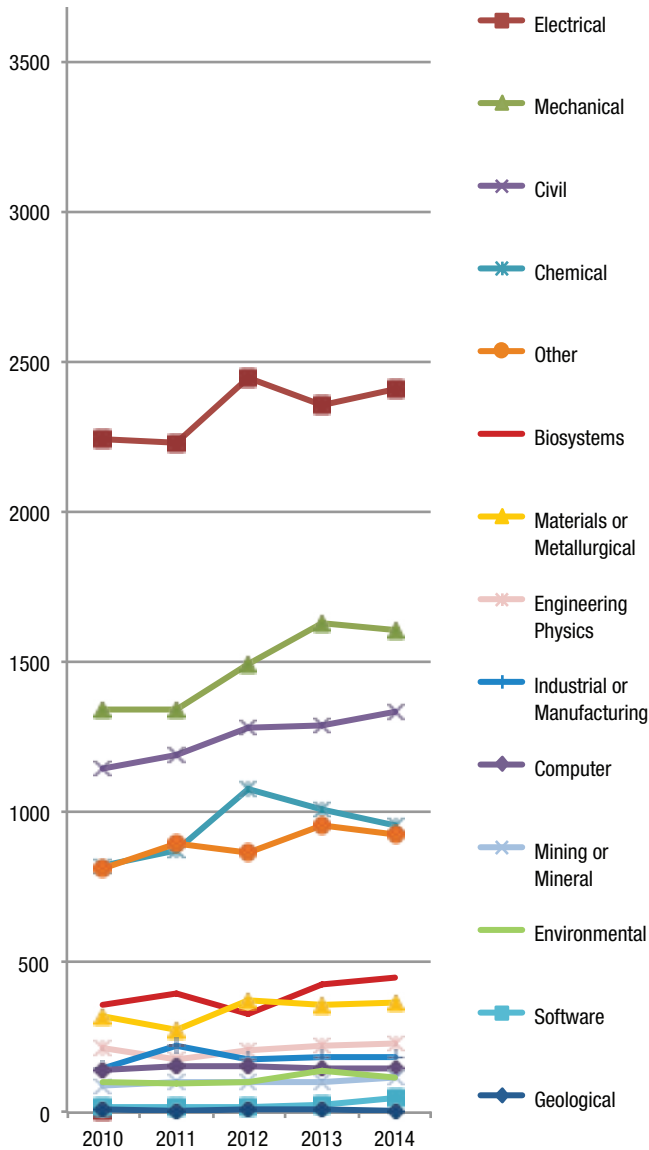
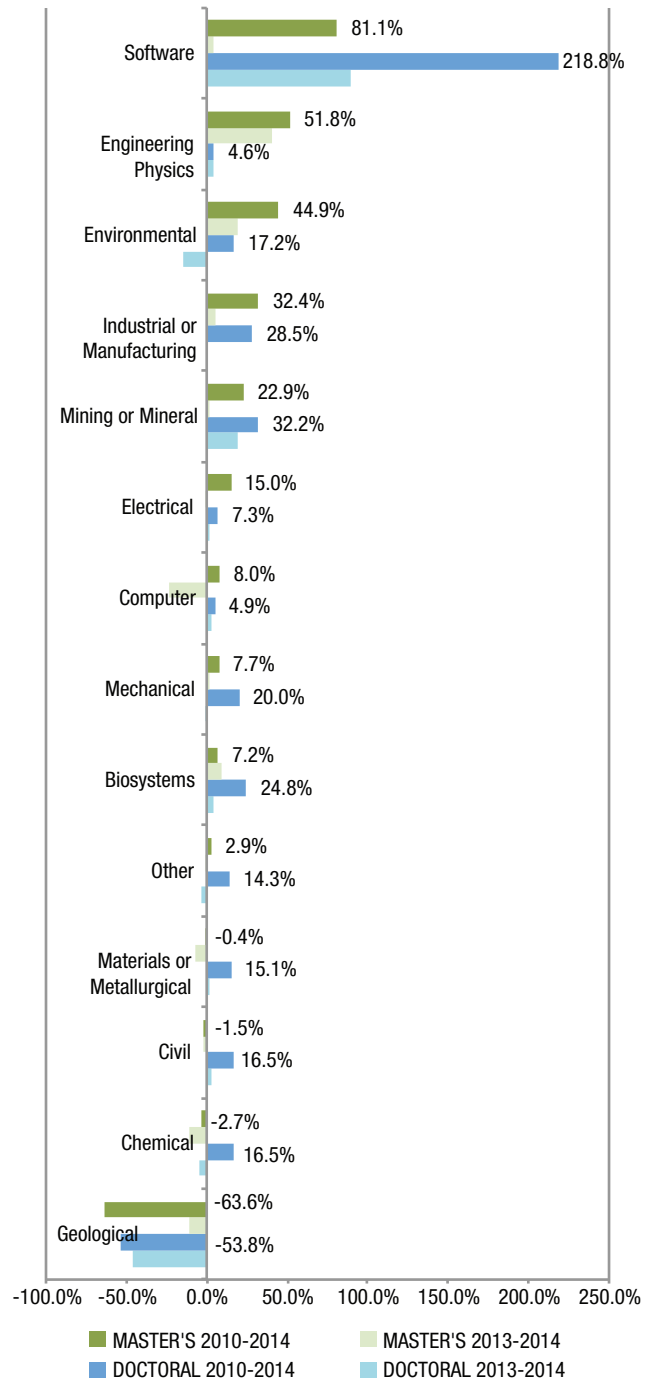


Chart 2.2 and Chart 2.3 illustrate enrolment trends in both master's and doctoral programs. While mechanical engineering dominates in undergraduate enrolment, electrical engineering has the highest proportion in both master's and doctoral students at 27.0% for both graduate levels.

However, software engineering is increasing drastically in both graduate levels – possibly indicative of industry trends. Chart 2.4 shows trends in growth rates for both master's and doctoral programs from 2013 and cumulatively from 2010.

POSTGRADUATE ENROLMENT BY PROGRAM

CHART 2.4 - POSTGRADUATE ENROLMENT GROWTH BY PROGRAM



POSTGRADUATE ENROLMENT BY GENDER

The proportion of female postgraduate enrolment is actually higher than female undergraduate enrolment. In fact, 24.1% of graduate students are female compared to 19.1% of undergraduate engineering students.

At 24.3%, the female proportion of visa postgraduate students is marginally higher than the female proportion of Canadian postgraduate students 23.8%. Postgraduate programs with the highest proportion of female students include environmental engineering at 44.0%, biosystems engineering at 37.7% and Chemical engineering at 34.7%.

The prairies have the highest proportion of female students with Alberta at 27.9%, Saskatchewan at 27.6% and Manitoba 24.0%.

CHART 2.5 - MASTER'S ENROLMENT BY GENDER

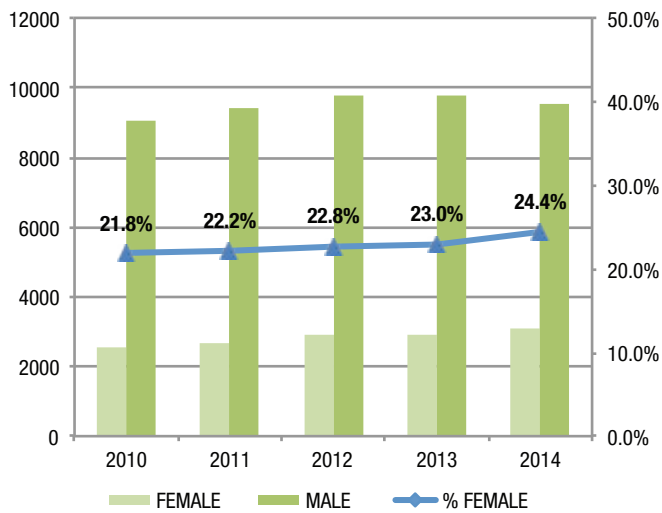
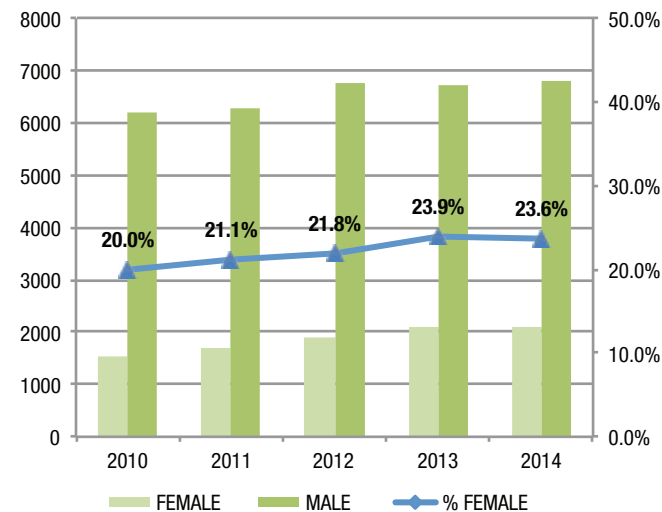


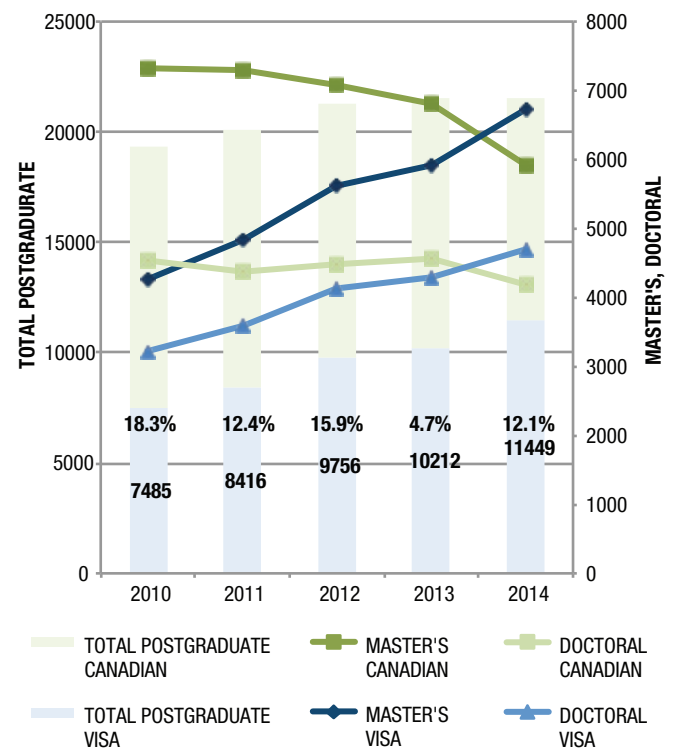
CHART 2.6 - DOCTORAL ENROLMENT BY GENDER



POSTGRADUATE ENROLMENT OF INTERNATIONAL (VISA) STUDENTS

At 11,449 students, visa students account for over half of total graduate student enrolment (53.0%). Although total postgraduate enrolment is declining, visa student enrolment continues to increase, indicating that only Canadian postgraduate enrolment is decreasing. In fact, Chart 2.7 illustrates that the growth in postgraduate enrolment from previous years is entirely the result of the increase in visa students' postgraduate enrolment, as Canadian postgraduate enrolment has been decreasing steadily. In 2014, the decline in Canadian postgraduate enrolment exceeded the increase in visa postgraduate enrolment thus reflecting an overall decline. Data labels in Chart 2.7 refer to trends in total postgraduate visa enrolment.

CHART 2.7 - POSTGRADUATE ENROLMENT OF INTERNATIONAL (VISA) STUDENTS



POSTGRADUATE DEGREES AWARDED

In 2014, 5,978 master's degrees were awarded, reflecting an increase of 8.8% from 2013 and 45.4% from 2010. Master's degrees awarded to female students account for 24.3% of total degrees and are consistent with the average female master's enrolment rate of 23.0% over the five years covered in this report. Chart 2.8 reflects this consistency and is not suggestive of differences in gender completion rates.

In 2014, 1,389 doctorates were awarded, reflecting an increase of 4.4% from 2013 and 32.0% from 2010. Female doctorates account for 20.7% of total doctorates awarded, slightly lower than the average proportion of female doctoral students, which is 22.1% of all doctoral students. Chart 2.9 shows that although the doctoral degrees awarded to females and doctoral enrolment have once been nearly at parity, the divergence has been increasing and suggests that women may have difficulty in completing their doctorates.

CHART 2.8 - MASTER'S AWARDED BY GENDER

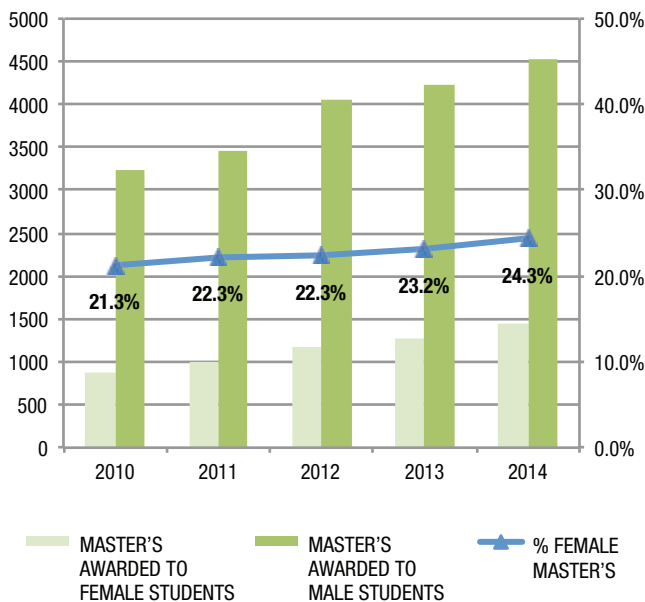


CHART 2.9 - DOCTORATES AWARDED BY GENDER

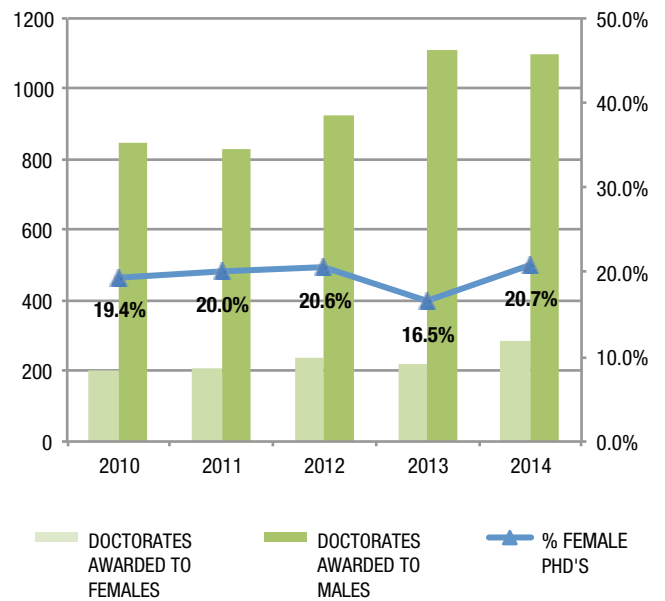


CHART 2.10 - GRADUATE DEGREES AWARDED TO VISA STUDENTS

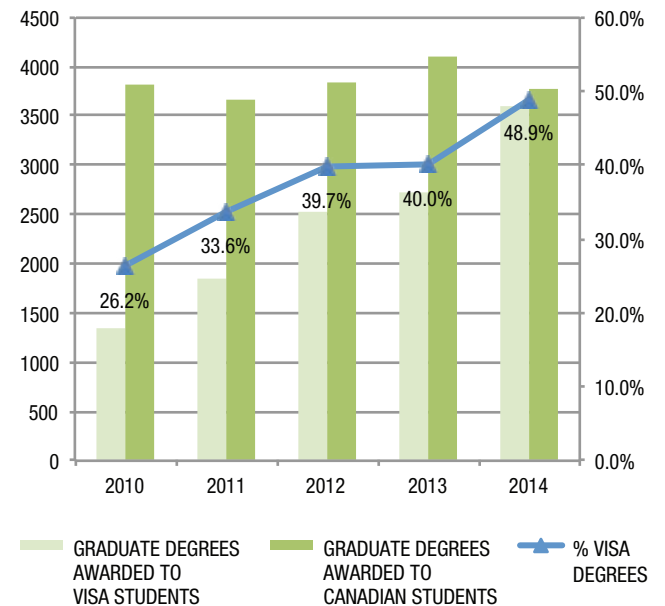


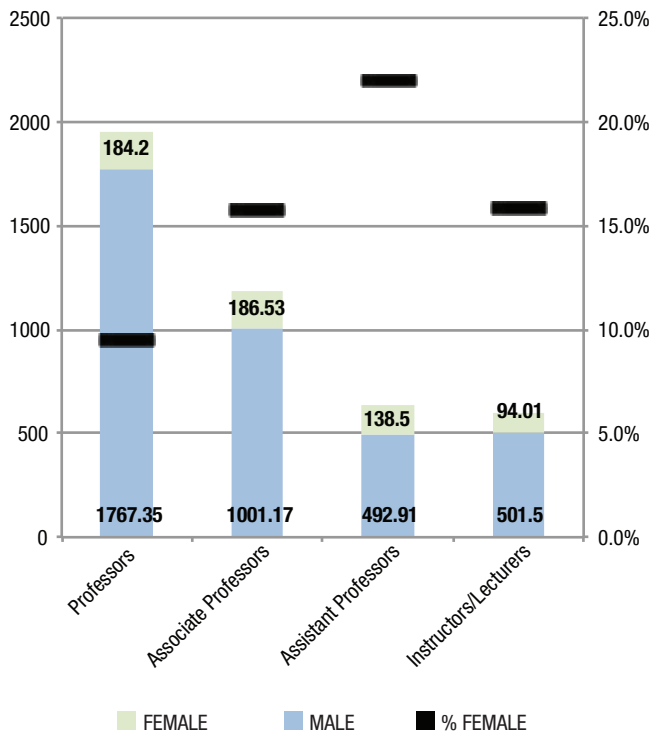
Chart 2.10 highlights the large increase in graduate degrees awarded to visa students since 2010, in accordance with the large increase in visa postgraduate enrolment. In 2014, the proportion of visa graduate degrees awarded exceeded the average visa postgraduate enrolment is 45.6% over the five years.

Faculty Members

Faculty members increased in 2014 by 0.7% to 4,366. Female faculty members accounted for 13.8% and actually increased 3.7% from 2013 and 13.8% from 2010. However, as illustrated in

Chart 3.1, the proportion of female professors is significantly lower than in other faculty levels.

CHART 3.1- FACULTY MEMBERS BY GENDER



Appendix A

DATA TABULATIONS – ENGINEERING ENROLMENT AND DEGREES AWARDED

The following chart sets out the structure of the data tabulations.

Undergraduate Enrolment (U)

- U.1. National**
- U.2. Provincial**
- U.3. Institutional**

Undergraduate Degrees Awarded (UD)

- UD.1. National**
- UD.2. Provincial**
- UD.3. Institutional**

Postgraduate Student Enrolment (G)

- G.1. National**
- G.2. Provincial**
- G.3. Institutional**

Postgraduate Degrees Awarded (GD)

- GD.1. National**
- GD.2. Provincial**
- GD.3. Institutional**

Faculty Members by Institution (F)

- F.1. Faculty Composition**

Co-op, Internship and Professional Experience Programs (C)

- C.1. Industry Experience Options by Institutions**

For 2007 and onwards, data are based on the average number of students enrolled over the fall, winter and summer terms.

SCHOOL NAME AND ACRONYMS

In the *Appendix* section of this report, all university names, where appropriate, have been abbreviated. The chart shown below lists the complete name of the school and the abbreviated name that is used.

COMPLETE SCHOOL NAME	ACRONYM
Acadia University	Acadia
Alberta, University of	Alberta
British Columbia Institute of Technology	BCIT
British Columbia, University of	UBC
British Columbia at Okanagan, University of	UBCO
Calgary, The University of	Calgary
Cape Breton, University College of	Cape Breton
Carleton University	Carleton
Concordia University	Concordia
Conestoga College	Conestoga
Dalhousie University	Dal
École de technologie supérieure	ETS
Guelph, University of	Guelph
Lakehead University	Lakehead
Laurentian University	Laurentian
Laval, Université	Laval
Manitoba, The University of	Manitoba
McGill University	McGill
McMaster University	McMaster
Memorial University of Newfoundland	MUN
Moncton, Université de	Moncton
New Brunswick, University of	UNB
Northern British Columbia, University of	UNBC
Nova Scotia Agricultural College	NSAC
Ottawa, University of	Ottawa
Prince Edward Island, University of	UPEI
Polytechnique, École	Polytechnique
Québec à Chicoutimi, Université du	UQAC
Québec à Montréal, Université du	UQAM
Québec à Rimouski, Université du	UQAR
Québec à Trois-Rivières, Université du	UQTR
Québec en Abitibi-Témiscamingue, Université du	UQAT
Québec en Outaouais, Université du	UQO
Queen's University	Queen's

Cont'd

COMPLETE SCHOOL NAME	ACRONYM
Regina, University of	Regina
Royal Military College of Canada	RMC
Ryerson University	Ryerson
Saint Mary's University	SMU
Saskatchewan, University of	Saskatchewan
Sherbrooke, Université de	Sherbrooke
Simon Fraser University	SFU
St. Francis Xavier University	StFX
Toronto, University of	Toronto
University of Ontario, Institute of Technology	UOIT
Victoria, University of	Uvic
Waterloo, University of	Waterloo
Western Ontario, University of	Western
Windsor, University of	Windsor
York University	York

PROVINCE NAME AND ABBREVIATION

The names of provinces have also been abbreviated. The chart shown below lists the abbreviations.

PROVINCE NAME	ABBREVIATION
Alberta	AB
British Columbia	BC
Manitoba	MB
New Brunswick	NB
Newfoundland and Labrador	NL
Nova Scotia	NS
Ontario	ON
Prince Edward Island	PE
Québec	QC
Saskatchewan	SK

A.1. UNDERGRADUATE STUDENT ENROLMENT

U.1. National

TABLE U.1.1.

Total undergraduate enrolment in accredited engineering programs by discipline: 2010 to 2014.

DISCIPLINE	2010	2011	2012	2013	2014
Biosystems	750	719	1,023	1,080	1,402
Chemical	5,128	5,000	5,517	5,825	6,076
Civil	10,401	10,758	11,681	11,957	11,815
Computer	3,369	3,526	3,520	3,873	4,105
Electrical	9,294	9,727	10,462	10,556	11,348
Engineering Physics	2,741	2,786	2,894	3,081	3,222
Environmental	1,085	1,229	1,440	1,440	1,444
Geological	560	604	667	730	761
Industrial or Manufacturing	1,662	1,766	1,857	1,959	2,427
Materials or Metallurgical	811	824	805	886	793
Mechanical	13,291	13,703	14,489	15,368	16,640
Mining or Mineral	876	936	1,046	1,304	1,431
Software	2,144	2,222	2,573	2,974	3,616
Other	2,922	3,063	3,649	3,662	4,215
Year One/Two Common Year	6,472	8,605	7,926	7,642	6,363
TOTAL	61,505	65,468	69,549	72,338	75,657

TABLE U.1.2.

Total female undergraduate enrolment in accredited engineering programs: 1991 to 2014.

YEAR	TOTAL ENROLMENT	WOMEN	PERCENT OF TOTAL
1991	37,147	5,979	16.1
1992	40,307	6,689	16.6
1993	41,562	7,376	17.7
1994	40,958	7,466	18.2
1995	40,068	7,541	18.8
1996	40,997	7,736	18.9
1997	42,048	8,099	19.3
1998	43,898	8,493	19.3
1999	44,840	9,217	20.6
2000	47,066	9,561	20.3
2001	49,422	10,199	20.6
2002	52,585	10,456	19.9
2003	54,301	10,423	19.2
2004	54,991	10,011	18.2
2005	54,713	9,546	17.4
2006	53,287	9,350	17.5
2007	55,958	9,682	17.3
2008	57,255	9,797	17.1
2009	58,872	10,199	17.3
2010	62,259	11,032	17.7
2011	66,316	11,678	17.6
2012	70,201	12,704	18.1
2013	73,035	13,778	18.9
2014	75,657	14,468	19.1

TABLE U.1.3.

Total female undergraduate enrolment in accredited engineering programs: 2010-2014.

DISCIPLINE	2010	2011	2012	2013	2014
Biosystems	287	277	439	450	603
Chemical	1,723	1,686	1,826	1,920	2,067
Civil	2,224	2,370	2,556	2,718	2,728
Computer	349	360	355	416	478
Electrical	1,171	1,185	1,297	1,367	1,463

DISCIPLINE	2010	2011	2012	2013	2014
Engineering Physics	444	461	497	555	597
Environmental	427	504	565	571	597
Geological	198	221	245	268	280
Industrial or Manufacturing	382	412	441	489	647
Materials or Metallurgical	186	188	188	219	206
Mechanical	1,372	1,367	1,502	1,672	1,858
Mining or Mineral	143	168	186	191	226
Software	207	216	253	330	413
Other	497	518	657	722	843
Year One/Two Common Year	1,305	1,630	1,600	1,764	1,462
TOTAL	10,915	11,563	12,609	13,652	14,468

TABLE U.1.4.

Total 2014 undergraduate enrolment in engineering programs which will be seeking accreditation.

INSTITUTION	PROGRAM	2014
BCIT	Mechanical Engineering	276
Carleton	Architectural Conservation and Sustainability	159
Laval	Génie industriel	76
McGill	General Engineering	78
McGill	Undeclared Major Engineering	35
UNB	Software Engineering Entrance Program	2
UOIT	Energy Systems Engineering	76
UQO	Génie électrique	6
UVic	Biomedical Engineering	61
UVic	Civil Engineering	64
Waterloo	Biomedical Engineering	42
York	Civil Engineering	26
York	Electrical Engineering	53
York	Mechanical Engineering	26
York	Software Engineering	41
York	Undeclared Major Engineering	24
TOTAL		1,075

U.2. Provincial

TABLE U.2.1.

Total undergraduate enrolment in accredited engineering programs by province: 2010-2014.

PROVINCE	2010	2011	2012	2013	2014
AB	6,798	6,897	7,154	7,334	5,818
BC	5,948	7,158	8,168	6,935	6,713
MB	1,088	1,154	1,255	1,412	1,483
NB	1,910	2,018	2,141	2,025	1,886
NL	762	873	859	937	989
NS	1,605	1,777	1,863	2,049	2,137
ON	25,898	27,522	28,904	30,288	34,089
PE	100	103	111	126	120
QC	15,359	15,814	16,969	18,659	19,839
SK	2,038	2,152	2,126	2,574	2,584
TOTAL	61,505	65,468	69,549	72,338	75,657

TABLE U.2.3.

Total undergraduate foreign student enrolment in accredited engineering programs by province: 2010-2014.

PROVINCE	2010	2011	2012	2013	2014
AB	584	655	738	795	644
BC	669	829	1,014	1,018	1,142
MB	129	149	185	245	276
NB	344	611	659	674	451
NL	73	89	86	95	102
NS	284	318	440	479	513
ON	3,010	3,474	3,778	4,197	4,841
PE	14	12	12	20	30
QC	2,125	2,157	2,290	2,623	2,743
SK	334	385	405	573	577
TOTAL	7,565	8,678	9,606	10,719	11,321

TABLE U.2.2.

Total female undergraduate enrolment in accredited engineering programs by province: 2014.

PROVINCE	TOTAL ENROLMENT	FEMALE ENROLMENT	PERCENT FEMALE ENROLMENT
AB	5,818	1,303	22.4%
BC	6,713	1,206	18.0%
MB	1,483	275	18.5%
NB	1,886	342	18.1%
NL	989	241	24.3%
NS	2,137	413	19.3%
ON	34,089	6,611	19.4%
PE	120	10	8.3%
QC	19,839	3,542	17.9%
SK	2,584	526	20.4%
TOTAL	75,657	14,468	19.1%

TABLE U.2.4.

Total undergraduate enrolment in accredited engineering programs by discipline and province: 2014.

DISCIPLINE	AB	BC	MB	NB	NL	NS	ON	PE	QC	SK	TOTAL
Biosystems		71	110	0			989		232	1	1,402
Chemical	769	190		299		106	3,425		1,081	206	6,076
Civil	909	596	242	530	146	117	4,464		4,605	207	11,815
Computer	207	416	90	29	52		2,362		902	47	4,105
Electrical	936	1,229	288	278	86	130	4,843		3,450	107	11,348
Engineering Physics	50	1,040				281	1,449		363	39	3,222
Environmental		144				45	933		77	245	1,444
Geological		121		61			256		240	83	761
Industrial or Manufacturing						101	784		1,286	256	2,427
Materials or Metallurgical	172	139				20	202		260		793
Mechanical	1,319	1,155	450	468	235	184	7,736		4,853	241	16,640
Mining or Mineral	202	150				85	528		465		1,431
Software	126	144		69			1,510		1,680	87	3,616
Other	479	142		87	153	719	1,867		344	424	4,215
Year One/Two Common Year	649	1,177	303	65	319	349	2,741	120		642	6,363
TOTAL	5,818	6,713	1,483	1,886	989	2,137	34,089	120	19,839	2,584	75,657

TABLE U.2.5.

Total female undergraduate enrolment in accredited engineering programs by discipline and province: 2014.

DISCIPLINE	AB	BC	MB	NB	NL	NS	ON	PE	QC	SK	TOTAL
Biosystems		32	53	0			412		106	0	603
Chemical	251	59		92		32	1,112		464	56	2,067
Civil	285	120	49	109	41	20	1,001		1,048	56	2,728
Computer	26	57	13	3	4		288		85	3	478
Electrical	153	149	49	36	16	15	637		400	10	1,463
Engineering Physics	4	173				42	310		65	3	597
Environmental		62				22	367		40	106	597
Geological		45		23			104		90	18	280
Industrial or Manufacturing						22	248		345	33	647
Materials or Metallurgical	46	28				4	67		62		206
Mechanical	185	148	51	46	37	22	808		542	20	1,858
Mining or Mineral	27	17				9	103		70		226
Software	23	10		8			185		174	13	413
Other	119	31		14	55	146	363		53	63	843
Year One/Two Common Year	183	274	61	13	90	80	606	10		145	1,462
TOTAL	1,303	1,206	275	342	241	413	6,611	10	3,542	526	14,468

U.3. Institutional

TABLE U.3.1.

Total undergraduate enrolment in accredited engineering programs by institution: 2010 to 2014.

INSTITUTION	2010	2011	2012	2013	2014
Acadia	91	101	207	171	153
Alberta	3,919	3,904	4,021	4,145	3,277
BCIT	186	465	469	486	508
Calgary	2,879	2,993	3,133	3,189	2,541
Cape Breton	81	84	118	83	54
Carleton	2,542	2,698	3,186	3,228	3,511
Concordia	2,795	2,787	2,610	3,090	3,228
Conestoga	55	80	80	98	161
Dal	1,108	1,273	1,208	1,343	1,508
ETS	3,342	3,654	3,921	4,382	5,762
Guelph	539	528	530	942	1,320
Lakehead	798	796	806	798	849
Laurentian	256	442	279	382	544
Laval	1,616	1,683	1,841	1,987	1,059
Manitoba	1,088	1,154	1,255	1,412	1,483
McGill	2,443	2,257	2,259	2,649	2,769
McMaster	2,417	2,731	2,338	2,737	3,330
Moncton	325	338	367	358	343
MUN	762	873	859	937	989
NSAC	56	59	31	65	72
Ottawa	1,757	1,805	2,030	2,340	2,661
Polytechnique	3,519	3,644	4,197	4,305	4,704
Queen's	2,575	2,687	2,734	2,745	2,811
Regina	824	878	876	1,157	1,166
RMC	395	431	440	513	418
Ryerson	2,433	2,569	3,036	3,193	3,632
Saskatchewan	1,215	1,274	1,251	1,418	1,417
SFU	634	945	990	1,120	1,245
Sherbrooke	1,053	1,248	1,248	1,339	1,358
SMU	189	167	214	297	281
StFX	80	93	85	90	70
Toronto	4,294	4,386	4,488	4,560	4,672
UBC	3,818	3,800	3,873	3,699	3,501
UBCO ⁵	311	884	1,650	262	
UNB	1,585	1,680	1,774	1,667	1,543
UNBC	69	73	89	84	85
UOIT	1,112	1,243	1,370	763	1,633
UPEI	100	103	111	126	120
UQAC	217	208	365	358	370
UQAM	20	27	42	42	47
UQAR	81	86	81	89	88
UQAT	68	54	55	62	63
UQO	34	3	35	30	29
UQTR	170	163	314	327	362
UVic	930	992	1,098	1,284	1,374
Waterloo	4,457	4,622	5,047	5,182	5,315
Western	1,115	1,324	1,260	1,321	1,582
Windsor	974	985	1,064	1,245	1,468
York	181	195	218	241	183
TOTAL	61,505	65,468	69,549	72,338	75,657

⁵ Data are unavailable for undergraduate enrolment for UBCO in 2014.

TABLE U.3.2.

Total female undergraduate enrolment in accredited engineering programs by institution: 2010 to 2014.

INSTITUTION	2010	2011	2012	2013	2014
Acadia	19	23	27	38	31
Alberta	806	774	800	827	658
BCIT	22	37	39	42	49
Calgary	692	701	747	773	645
Cape Breton	15	14	16	18	10
Carleton	335	370	446	450	504
Concordia	451	471	490	606	645
Conestoga	5	9	5	5	10
Dal	215	241	229	262	291
ETS	306	325	353	385	507
Guelph	151	160	167	228	362
Lakehead	69	64	77	88	88
Laurentian	51	74	41	52	84
Laval	284	311	336	361	214
Manitoba	174	194	217	250	275
McGill	502	510	496	604	646
McMaster	455	434	418	514	587
Moncton	44	60	63	65	65
MUN	160	183	188	243	241
NSAC	3	6	5	9	17
Ottawa	351	325	409	445	527
Polytechnique	734	755	914	992	1,168
Queen's	632	687	741	775	815
Regina	170	184	168	266	249
RMC	49	46	60	71	51
Ryerson	356	377	522	539	638
Saskatchewan	218	247	243	279	277
SFU	80	120	133	155	187
Sherbrooke	163	194	190	213	207
SMU	25	20	25	42	42
StFX	24	23	20	26	22
Toronto	957	1,024	1,068	1,116	1,198
UBC	725	732	760	783	787
UBCO	40	98	205	32	
UNB	259	278	278	255	277
UNBC	31	33	43	38	32
UOIT	87	90	100	66	111
UPEI	15	25	12	18	10
UQAC	25	27	45	53	58
UQAM	1	2	3	3	4
UQAR	5	7	15	13	8
UQAT	10	10	12	13	12
UQO	5	1	4	3	5
UQTR	18	18	43	50	69
UVic	82	90	98	133	151
Waterloo	730	777	915	975	1,058
Western	215	250	242	261	312
Windsor	120	130	145	178	236
York	33	33	38	42	32
TOTAL	10,915	11,563	12,609	13,652	14,468

TABLE U.3.3.

Total undergraduate enrolment in accredited engineering programs by institution and discipline: 2014.

INSTITUTION	BIOSYSTEMS	CHEMICAL	CIVIL	COMPUTER	ELECTRICAL	ENGINEERING PHYSICS	ENVIRONMENTAL	GEOLOGICAL	INDUSTRIAL	MATERIALS	MECHANICAL	MINING OR MINERAL	SOFTWARE	OTHER	YEAR ONE/TWO COMMON
Acadia															153
Alberta		525	617	207	462	50				172	819	202		223	
BCIT			204		304										
Calgary		244	292		474						500		126	256	649
Cape Breton															54
Carleton	153		596	238	808	92	335				591		225	473	
Concordia			1,019	157	366				263		1,027		396		
Conestoga				44							117				
Dal		106	117		130		45		101	20	184	85		719	
ETS			1,791		1,426				471		1,441		633		
Guelph	317			145			356				455				49
Lakehead		88	339		165						227		30		
Laurentian		142									199	203			
Laval	74	94		93	133	128	77	90		62		136	105	67	
Manitoba	110		242	90	288						450				303
McGill		393	392	134	588					197	730	141	195		
McMaster		392	395	151	451	138					542		251		1,012
Moncton			168		72						103				
MUN			146	52	86						235			153	319
NSAC															72
Ottawa	224	450	626	163	458						526		215		
Polytechnique	157	357	989	292	411	235		119	422		929	189	352	252	
Queen's		289	284	122	178	370		170			488	203			707
Regina							194		256				87	424	205
RMC		39	65	45	42						49			62	116
Ryerson	295	365	658	271	635				223		693			433	58
Saskatchewan	1	206	207	47	107	39	51	83			241				437
SFU						838					407				
Sherbrooke		217	271	174	260						436				
SMU						281									
StFX															70
Toronto		515	485	446	755	850			363	202	734	122			200
UBC	71	190	392	347	537	202	59	121		139	384	150		142	767
UNB		299	362	29	206			61			365		69	87	65
UNBC							85								
UOIT					349				58		811		155	260	
UPEI															120
UQAC			143	24	60			31			113				
UQAM					47										
UQAR					23						40			25	
UQAT					37						26				
UQO				29											
UQTR		19			100				130		112				
UVic				69	388						364		144		410
Waterloo		946	495	632	632		186	86			1,310		465	566	
Western		200	219	20	109						308		169	45	512
Windsor			302		262		57		139		620				88
York				86							67			29	
TOTAL	1,402	6,076	11,815	4,105	11,348	3,222	1,444	761	2,427	793	16,640	1,431	3,616	4,215	6,363

TABLE U.3.4.

Total female undergraduate enrolment in accredited engineering programs by institution and discipline: 2014.

INSTITUTION	BIOSYSTEMS	CHEMICAL	CIVIL	COMPUTER	ELECTRICAL	ENGINEERING PHYSICS	ENVIRONMENTAL	GEOLOGICAL	INDUSTRIAL	MATERIALS	MECHANICAL	MINING OR MINERAL	SOFTWARE	OTHER	YEAR ONE/ TWO COMMON
Acadia															31
Alberta		169	195	26	53	4				46	98	27		40	
BCIT			31		18										
Calgary		82	90		100						87		23	79	183
Cape Breton															10
Carleton	52		85	20	104	10	104				46		18	65	
Concordia			282	15	60				97		129		62		
Conestoga				4							6				
Dal		32	20		15		22		22	4	22	9		146	
ETS			270		116				30		67		23		
Guelph	149			16			140				46				11
Lakehead		28	39		5						13		3		
Laurentian		34									17	33			
Laval	29	29		7	11	18	40	29		11		15	11	14	
Manitoba	53		49	13	49						51				61
McGill		158	137	18	96					51	125	27	34		
McMaster		120	73	17	79	14					57		29		200
Moncton			35		19						12				
MUN			41	4	16						37			55	90
NSAC															17
Ottawa	91	141	136	22	55						52		31		
Polytechnique	77	193	273	29	68	47		51	171		153	28	44	35	
Queen's		132	118	22	28	85		83			105	42			199
Regina							81		33				13	63	60
RMC		11	6	5	5						8			6	10
Ryerson	120	109	134	21	66				73		46			56	13
Saskatchewan		56	56	3	10	3	25	18			20				85
SFU						150					37				
Sherbrooke		82	55	9	18						43				
SMU						42									
StFX															22
Toronto		199	157	75	141	201			142	67	129	28			61
UBC	32	59	89	55	97	23	30	45		28	75	17		31	206
UNB		92	74	3	17			23			34		8	14	13
UNBC							32								
UOIT					21				5		41		15	29	
UPEI															10
UQAC			32	2	4			10			10				
UQAM					4										
UQAR					3						2			3	
UQAT					5						7				
UQO				5											
UQTR		3			14				46		6				
UVic				2	34						36		10		68
Waterloo		262	135	66	78		95	22			147		67	188	
Western		77	59	2	20						28		23	14	89
Windsor			60		34		29		29		60				25
York				18							9			5	
TOTAL	603	2,067	2,728	478	1,463	597	597	280	647	206	1,858	226	413	843	1,462

A.2. UNDERGRADUATE DEGREES AWARDED

UD.1. National

TABLE UD.1.1.

Total undergraduate degrees awarded by discipline: 2010 to 2014.

Discipline	2010	2011	2012	2013	2014
Biosystems	162	153	152	194	211
Chemical	1,148	1,161	1,278	1,307	1,292
Civil	1,962	2,235	2,325	2,751	2,688
Computer	667	568	630	686	573
Electrical	2,103	2,041	2,055	2,137	2,202
Engineering Physics	549	453	515	548	532
Environmental	181	229	258	300	360
Geological	127	128	121	164	152
Industrial or Manufacturing	391	350	369	361	440
Materials or Metallurgical	221	211	207	216	213
Mechanical	2,984	2,966	3,153	3,255	3,338
Mining or Mineral	209	222	237	220	280
Software	367	366	413	434	547
Other	465	678	669	790	908
TOTAL	11,536	11,761	12,382	13,363	13,876

TABLE UD.1.2.

Total undergraduate degrees awarded to female students by discipline: 2010 to 2014.

DISCIPLINE	2010	2011	2012	2013	2014
Biosystems	52	51	76	87	101
Chemical	397	399	444	427	402
Civil	426	491	500	605	597
Computer	55	57	69	71	59
Electrical	276	248	259	283	330
Engineering Physics	103	86	76	92	93
Environmental	61	95	116	121	147
Geological	41	42	44	58	57
Industrial or Manufacturing	88	89	94	73	125
Materials or Metallurgical	43	51	58	43	53
Mechanical	307	282	324	344	357
Mining or Mineral	30	46	35	38	44
Software	33	42	39	43	57
Other	76	150	101	162	182
TOTAL	1,988	2,129	2,235	2,447	2,637

UD.2. Provincial

TABLE UD.2.1.

Total undergraduate degrees awarded by province: 2010 to 2014.

PROVINCE	2010	2011	2012	2013	2014
AB	1,187	1,298	1,246	1,282	1,346
BC	1,065	1,126	1,161	1,278	1,324
MB	223	197	172	188	219
NB	256	240	270	320	308
NL	166	151	166	270	194
NS	291	469	397	477	722
ON	5,101	5,075	5,508	5,927	5,996
QC	2,896	2,850	3,043	3,202	3,370
SK	351	355	419	419	397
TOTAL	11,536	11,761	12,382	13,363	13,876

TABLE UD.2.2.

Total undergraduate degrees awarded to female students by province: 2010 to 2014

PROVINCE	2010	2011	2012	2013	2014
AB	272	302	259	290	277
BC	175	208	184	172	210
MB	30	27	22	29	52
NB	33	45	51	45	65
NL	33	33	28	77	44
NS	63	108	80	101	158
ON	858	876	1,021	1,123	1,155
QC	472	454	496	518	593
SK	52	76	94	92	83
TOTAL	1,988	2,129	2,235	2,447	2,637

TABLE UD.2.3.

Total undergraduate degrees awarded to foreign students by province: 2010 to 2014.

PROVINCE	2010	2011	2012	2013	2014
AB	64	90	95	107	122
BC	101	91	110	109	140
MB	38	28	20	14	34
NB	26	38	45	57	70
NL	13	14	4	16	30
NS	19	64	44	65	108
ON	408	411	577	585	640
QC	310	271	327	353	424
SK	30	40	34	63	63
TOTAL	1,009	1,047	1,256	1,369	1,631

TABLE UD.2.4.

Total undergraduate degrees awarded by province and discipline: 2014.

DISCIPLINE	AB	BC	MB	NB	NL	NS	ON	QC	SK
Biosystems		15	27			1	135	33	
Chemical	218	55		50		41	699	192	37
Civil	239	214	59	113	42	66	1,022	886	47
Computer	41	87	11	4	15	3	245	136	31
Electrical	241	238	43	51	32	44	997	522	34
Engineering Physics	24	152					284	63	9
Environmental		50				39	200	17	54
Geological		26		7			60	44	15
Industrial or Manufacturing						33	137	233	37
Materials or Metallurgical	39	32				17	90	35	
Mechanical	346	332	79	66	63	80	1,431	863	78
Mining or Mineral	35	55				35	98	57	
Software	30	26		5			243	230	13
Other	133	42		12	42	223	355	59	42
TOTAL	1,346	1,324	219	308	194	722	5,996	3,370	397

TABLE UD.2.5.

Total undergraduate degrees awarded to women by province and discipline: 2014.

DISCIPLINE	AB	BC	MB	NB	NL	NS	ON	QC	SK
Biosystems		4	15			1	63	18	
Chemical	62	15		11		9	221	72	12
Civil	64	35	11	30	11	10	212	215	9
Computer	6	12	2	1	2		22	14	
Electrical	48	30	12	11	7	9	145	62	6
Engineering Physics	3	22					58	9	1
Environmental		20				22	73	7	25
Geological		9		2			26	16	4
Industrial or Manufacturing						7	56	58	4
Materials or Metallurgical	11	5				4	25	8	
Mechanical	42	41	12	6	7	12	143	84	10
Mining or Mineral	2	10				6	16	10	
Software	5	3		1			31	12	5
Other	34	4		3	17	45	64	8	7
TOTAL	277	210	52	65	44	158	1,155	593	83

UD.3. Institutional

TABLE UD.3.1.

Total undergraduate degrees awarded by institution:
2010 to 2014.

INSTITUTION	2010	2011	2012	2013	2014
Alberta	739	836	805	760	737
BCIT	27	36	41	52	54
Calgary	448	462	441	522	609
Carleton	409	395	401	427	453
Concordia	421	350	402	462	458
Conestoga	10	9	11	11	30
Dal	291	469	397	477	582
ETS	620	724	681	828	788
Guelph	69	95	87	104	220
Lakehead	251	223	282	302	283
Laurentian	35	118	132	249	83
Laval	400	347	327	300	300
Manitoba	223	197	172	188	219
McGill	500	456	513	487	546
McMaster	569	582	583	590	588
Moncton	50	30	45	67	71
MUN	166	151	166	270	194
Ottawa	286	252	254	286	363
Polytechnique	576	583	659	686	790
Queen's	543	507	620	641	594
Regina	99	104	128	123	158
RMC	40	77	72	93	0
Ryerson	402	409	442	514	557
Saskatchewan	252	251	291	296	239
SFU	90	94	112	142	157
Sherbrooke	264	284	291	279	276
Toronto	931	893	962	960	938
UBC	726	723	716	764	758
UBCO	56	103	118	142	145
UNB	206	210	225	253	237
UNBC	8	19	14	14	25
UOIT	225	158	196	228	239
UQAC	37	44	42	65	71
UQAM	7	4	9	9	6
UQAR	17	15	14	16	16
UQAT	27	18	11	7	10
UQO	6	1	35	7	5
UQTR	21	24	59	56	104
UVic	158	151	160	164	185
Waterloo	862	950	990	1,082	1,113
Western	246	208	232	249	291
Windsor	203	184	222	191	221
York	20	15	22		23
TOTAL	11,536	11,761	12,382	13,363	13,876

TABLE UD.3.2.

Total undergraduate degrees awarded to female students by
institution: 2010 to 2014.

INSTITUTION	2010	2011	2012	2013	2014
Alberta	158	186	150	159	141
BCIT	2	2	1	1	1
Calgary	114	116	109	131	136
Carleton	58	54	69	74	74
Concordia	71	51	63	88	96
Conestoga	0	0	1	1	5
Dal	63	108	80	101	125
ETS	50	68	54	90	65
Guelph	17	22	35	30	58
Lakehead	20	22	20	28	30
Laurentian	7	24	27	33	16
Laval	81	60	61	49	49
Manitoba	30	27	22	29	52
McGill	82	91	112	75	134
McMaster	90	98	100	104	111
Moncton	2	0	8	8	20
MUN	33	33	28	77	44
Ottawa	48	44	40	57	70
Polytechnique	128	127	157	148	168
Queen's	129	120	154	170	159
Regina	14	34	29	23	36
RMC	8	14	4	11	0
Ryerson	59	54	80	92	112
Saskatchewan	38	42	65	69	47
SFU	15	14	13	12	21
Sherbrooke	50	51	35	46	40
Toronto	206	175	227	207	237
UBC	124	152	135	128	141
UBCO	9	19	13	11	20
UNB	31	45	43	37	45
UNBC	3	10	7	8	10
UOIT	25	12	21	21	17
UQAC	2	2	6	8	10
UQAM	1	0	0	0	0
UQAR	3	1	1	0	3
UQAT	2	1	1	2	1
UQO	1	0	4	2	0
UQTR	1	2	2	10	27
UVic	22	11	15	12	17
Waterloo	134	162	156	218	189
Western	36	48	49	48	48
Windsor	21	23	33	29	26
York	0	4	5		3
TOTAL	1,988	2,129	2,235	2,447	2,637

TABLE UD.3.3.

Total undergraduate degrees awarded by institution and discipline: 2014.

INSTITUTION	BIOSYSTEMS	CHEMICAL	CIVIL	COMPUTER	ELECTRICAL	ENGINEERING PHYSICS	ENVIRONMENTAL	GEOLOGICAL	INDUSTRIAL	MATERIALS	MECHANICAL	MINING OR MINERAL	SOFTWARE	OTHER
Alberta		122	140	38	110	24				39	178	35		51
BCIT			18		12						24			
Calgary		96	99	3	131						168		30	82
Carleton	11		103	28	96	7	52				56		18	82
Concordia			160	16	48				35		158		41	
Conestoga				10							20			
Dal	1	41	66	3	44		39		33	17	80	35		223
ETS			232		185				80		206		85	
Guelph	45			22			87				66			
Lakehead		27	118		50		4				80		4	
Laurentian		22									28	33		
Laval	8	11	105	14	11	27	17	17	1	5	56	8	15	5
Manitoba	27		59	11	43						79			
McGill		84	92	26	116					30	138	28	32	
McMaster		90	112	14	118	30				51	143		30	
Moncton			36		18						17			
MUN			42	15	32						63			42
Ottawa	28	74	103	15	41						73		29	
Polytechnique	25	59	206	39	65	36		25	62		144	21	57	51
Queen's		103	95	15	52	83		43			154	49		
Regina				21			45		37				13	42
Ryerson	51	51	114	41	104				25		98			73
Saskatchewan		37	47	10	34	9	9	15			78			
SFU						97					60			
Sherbrooke		32	68	31	44						101			
Toronto		93	134		236	164			87	39	169	16		
UBC	15	55	125	76	129	55	25	26		32	123	55		42
UBCO			71		25						49			
UNB		50	77	4	33			7			49		5	12
UNBC							25							
UOIT					54				5		93		31	56
UQAC			23	5	13			2			28			
UQAM					6									
UQAR					6						7			3
UQAT					4						6			
UQO				5										
UQTR		6			24				55		19			
UVic				11	72						76		26	
Waterloo		199	108	84	154		45	17			276		105	125
Western		40	76	5	35						95		26	14
Windsor			59		57		12		20		73			
York				11							7			5
TOTAL	211	1,292	2,688	573	2,202	532	360	152	440	213	3,338	280	547	908

TABLE UD.3.4.

Total undergraduate degrees awarded to women by institution and discipline: 2014.

INSTITUTION	BIOSYSTEMS	CHEMICAL	CIVIL	COMPUTER	ELECTRICAL	ENGINEERING PHYSICS	ENVIRONMENTAL	GEOLOGICAL	INDUSTRIAL	MATERIALS	MECHANICAL	MINING OR MINERAL	SOFTWARE	OTHER
Alberta		32	40	6	22	3				11	15	2		10
BCIT			1											
Calgary		30	24		26						27		5	24
Carleton	9		19		16	1	15				3		1	10
Concordia			50	3	5				12		21		5	
Conestoga				4							1			
Dal	1	9	10		9		22		7	4	12	6		45
ETS			41		13				1		10			
Guelph	18			3			29				8			
Lakehead		10	10		2		1				7			
Laurentian		5									7	4		
Laval	3	4	20	1	1	5	7	4				2	1	1
Manitoba	15		11	2	12						12			
McGill		27	38	6	26					8	20	5	4	
McMaster		33	33	1	25	2				7	9		1	
Moncton			11		8						1			
MUN			11	2	7						7			17
Ottawa	8	23	14	2	9						8		6	
Polytechnique	15	29	52	1	8	4		10	22		15	3	2	7
Queen's		38	36	3	11	17		21			23	10		
Regina							20		4				5	7
Ryerson	28	16	25	1	18				8		8			8
Saskatchewan		12	9		6	1	5	4			10			
SFU						15					6			
Sherbrooke		11	11	2	3						13			
Toronto		36	33		39	38			41	18	30	2		
UBC	4	15	24	12	21	7	10	9		5	20	10		4
UBCO			10		3						7			
UNB		11	19	1	3			2			5		1	3
UNBC							10							
UOIT					2						3		5	7
UQAC			3	1	2			2			2			
UQAM														
UQAR					2						1			
UQAT											1			
UQO														
UQTR		1			2				23		1			
UVic					6						8		3	
Waterloo		49	18	5	17		22	5			21		16	36
Western		11	18	2	2						11		2	2
Windsor			6		4		6		7		3			
York				1							1			1
TOTAL	101	402	597	59	330	93	147	57	125	53	357	44	57	182

A.3. POSTGRADUATE STUDENT ENROLMENT

G.1. National

TABLE G.1.1.

Total full-time master's students: 2010 to 2014.

YEAR	2010	2011	2012	2013	2014
Cdn Male	5,004	5,034	4,818	4,654	4,001
Cdn Female	1,427	1,431	1,385	1,396	1,227
visa Male	3,303	3,663	4,252	4,454	4,945
visa Female	901	1,083	1,298	1,348	1,679
TOTAL	10,635	11,211	11,752	11,852	11,851

TABLE G.1.2.

Total full-time doctoral students: 2010 to 2014.

YEAR	2010	2011	2012	2013	2014
Cdn Male	3,503	3,287	3,390	3,336	3,065
Cdn Female	905	876	966	1,089	1,000
visa Male	2,588	2,802	3,227	3,287	3,615
visa Female	628	763	894	997	1,076
TOTAL	7,624	7,728	8,477	8,709	8,756

TABLE G.1.3.

Total part-time master's students: 2010 to 2014.

YEAR	2010	2011	2012	2013	2014
Cdn Male	1,930	1,991	1,978	1,790	1,290
Cdn Female	513	444	554	498	401
visa Male	108	202	132	204	203
visa Female	26	42	40	47	64
TOTAL	2,577	2,679	2,703	2,539	1,958

TABLE G.1.4.

Total part-time doctoral students: 2010 to 2014.

YEAR	2010	2011	2012	2013	2014
Cdn Male	306	373	311	285	239
Cdn Female	48	69	51	59	52
visa Male	23	45	36	39	34
visa Female	4	6	6	2	9
TOTAL	381	493	404	386	334

TABLE G.1.5.

Total full-time equivalent master's students by discipline: 2010 to 2014.

Discipline	2010	2011	2012	2013	2014
Biosystems	387	442	382	378	415
Chemical	935	1,082	1,099	1,026	910
Civil	1,871	2,068	2,060	1,875	1,843
Computer	312	337	322	439	337
Electrical	2,967	3,014	3,432	3,420	3,412
Engineering Physics	153	167	202	184	231
Environmental	243	270	268	296	352
Geological	44	20	19	18	16
Industrial or Manufacturing	339	403	392	427	449
Materials or Metallurgical	243	224	246	261	242
Mechanical	1,995	1,958	2,083	2,110	2,148
Mining or Mineral	137	160	160	148	188
Software	164	177	203	284	297
Other	1,785	1,805	1,826	1,856	1,836
TOTAL	11,575	12,126	12,694	12,725	12,658

TABLE G.1.6.

Total full-time equivalent doctoral students by discipline: 2010 to 2014.

Discipline	2010	2011	2012	2013	2014
Biosystems	359	400	325	429	448
Chemical	822	870	1,076	1,007	958
Civil	1,145	1,191	1,282	1,292	1,334
Computer	142	157	156	145	149
Electrical	2,243	2,230	2,445	2,354	2,406
Engineering Physics	217	174	211	219	227
Environmental	99	97	99	136	116
Geological	13	7	8	11	6
Industrial or Manufacturing	144	224	176	185	185
Materials or Metallurgical	318	273	375	359	366
Mechanical	1,340	1,340	1,495	1,631	1,608
Mining or Mineral	90	102	101	100	119
Software	16	18	18	27	51
Other	812	894	863	958	928
TOTAL	7,759	7,979	8,631	8,851	8,899

TABLE G.1.7.

Total full-time equivalent female master's students by discipline: 2010 to 2014.

DISCIPLINE	2010	2011	2012	2013	2014
Biosystems	164	191	169	152	164
Chemical	309	337	383	358	321
Civil	514	570	543	505	489
Computer	52	62	58	56	68
Electrical	503	539	671	721	789
Engineering Physics	29	41	43	42	67
Environmental	68	91	110	134	162
Geological	14	8	9	7	5
Industrial or Manufacturing	84	103	113	114	112
Materials or Metallurgical	76	74	73	77	68
Mechanical	277	250	267	276	328
Mining or Mineral	40	48	42	35	47
Software	33	28	36	54	66
Other	366	347	370	401	412
TOTAL	2,529	2,687	2,888	2,933	3,087

TABLE G.1.8.

Total full-time equivalent female doctoral students by discipline: 2010 to 2014.

DISCIPLINE	2010	2011	2012	2013	2014
Biosystems	131	153	122	160	161
Chemical	264	278	346	351	327
Civil	230	264	309	317	337
Computer	40	44	42	36	33
Electrical	341	370	407	427	452
Engineering Physics	31	25	41	47	52
Environmental	28	25	34	51	44
Geological	3	2	2	3	2
Industrial or Manufacturing	26	37	39	39	42
Materials or Metallurgical	73	60	99	99	106
Mechanical	211	218	253	347	278
Mining or Mineral	18	26	26	26	36
Software	4	3	2	4	9
Other	150	175	162	204	226
TOTAL	1,548	1,680	1,882	2,112	2,104

TABLE G.1.9.

Total full-time equivalent visa master's students by discipline: 2010 to 2014.

DISCIPLINE	2010	2011	2012	2013	2014
Biosystems	113	125	114	130	117
Chemical	373	446	523	398	492
Civil	545	644	681	701	708
Computer	139	156	164	203	184
Electrical	1,340	1,498	1,892	1,904	2,200
Engineering Physics	38	52	61	67	61
Environmental	85	104	118	132	185
Geological	9	1	3	6	5
Industrial or Manufacturing	146	183	170	218	247
Materials or Metallurgical	106	95	107	124	109
Mechanical	628	635	816	913	1,056
Mining or Mineral	47	68	71	73	85
Software	55	71	95	184	231
Other	636	747	803	858	1,056
TOTAL	4,261	4,825	5,617	5,912	6,737

TABLE G.1.10.

Total full-time equivalent visa doctoral students by discipline: 2010 to 2014.

DISCIPLINE	2010	2011	2012	2013	2014
Biosystems	113	124	101	161	175
Chemical	399	444	555	481	523
Civil	440	504	583	613	678
Computer	66	68	74	80	76
Electrical	917	1,030	1,194	1,209	1,328
Engineering Physics	80	54	83	98	108
Environmental	30	37	46	61	63
Geological	7	3	2	5	1
Industrial or Manufacturing	57	96	86	100	98
Materials or Metallurgical	160	160	219	199	218
Mechanical	584	636	734	786	872
Mining or Mineral	42	51	48	49	61
Software	5	8	7	11	17
Other	324	377	408	450	494
TOTAL	3,224	3,591	4,139	4,300	4,712

G.2. Provincial

TABLE G.2.1.

Total full-time equivalent master's students by province: 2010 to 2014.

Province	2010	2011	2012	2013	2014
AB	1,861	2,013	1,578	1,307	1,071
BC	816	892	851	848	857
MB	170	187	214	228	248
NB	202	187	180	171	133
NL	199	231	277	267	298
NS	266	356	335	418	389
ON	4,273	4,506	4,814	5,343	5,296
QC	3,439	3,465	4,123	3,799	4,023
SK	348	290	323	344	332
TOTAL	11,575	12,126	12,694	12,725	12,658

TABLE G.2.2.

Total full-time equivalent doctoral students by province: 2010 to 2014.

Province	2010	2011	2012	2013	2014
AB	1,144	1,241	1,233	1,141	1,081
BC	729	818	885	895	884
MB	181	205	213	214	214
NB	123	106	114	111	86
NL	82	86	100	127	151
NS	89	144	91	113	123
ON	2,908	2,965	3,103	3,294	3,394
QC	2,298	2,218	2,701	2,751	2,768
SK	206	197	190	206	200
TOTAL	7,759	7,979	8,631	8,851	8,899

TABLE G.2.3.

Total full-time equivalent female master's students by province: 2010 to 2014.

Province	2010	2011	2012	2013	2014
AB	434	439	416	361	325
BC	224	220	196	194	197
MB	39	40	49	57	67
NB	39	35	34	35	24
NL	41	50	69	72	69
NS	42	45	44	61	62
ON	916	1,008	1,077	1,212	1,302
QC	697	757	910	847	943
SK	97	93	91	95	87
TOTAL	2,529	2,687	2,888	2,933	3,087

TABLE G.2.4.

Total full-time equivalent female doctoral students by province: 2010 to 2014.

Province	2010	2011	2012	2013	2014
AB	223	260	269	332	276
BC	140	165	183	188	190
MB	25	34	39	42	44
NB	27	27	31	34	21
NL	13	14	16	23	32
NS	21	28	21	29	28
ON	594	624	674	743	766
QC	459	486	601	667	688
SK	48	42	48	53	60
TOTAL	1,548	1,680	1,882	2,112	2,104

TABLE G.2.5.

Total full-time equivalent visa master's students by province: 2010 to 2014.

Province	2010	2011	2012	2013	2014
AB	900	906	801	610	622
BC	321	399	427	459	502
MB	73	88	109	123	135
NB	88	93	88	87	68
NL	132	163	217	205	245
NS	157	225	247	294	268
ON	1,109	1,367	1,759	1,983	2,474
QC	1,288	1,401	1,756	1,916	2,183
SK	193	183	212	236	241
TOTAL	4,261	4,825	5,617	5,912	6,737

TABLE G.2.6.

Total full-time equivalent visa doctoral students by province: 2010 to 2014.

Province	2010	2011	2012	2013	2014
AB	551	620	696	485	719
BC	394	477	522	534	536
MB	84	100	114	123	135
NB	64	65	74	77	57
NL	40	45	56	80	105
NS	37	57	40	48	64
ON	980	1,050	1,163	1,358	1,454
QC	966	1,061	1,348	1,452	1,503
SK	109	116	127	143	139
TOTAL	3,224	3,591	4,139	4,300	4,712

TABLE G.2.7.

Total full-time equivalent postgraduate student enrolment by province and discipline: 2014.

DISCIPLINE	AB	BC	MB	NB	NL	NS	ON	QC	SK	TOTAL
Biosystems	66	193	56	2		40	340	112	55	863
Chemical	488			52		19	889	386	33	1,868
Civil	407	255	97	26	49	58	1,245	1,039		3,177
Computer	75	4			65		165	139	37	486
Electrical	339	545	167	43	49	87	2,801	1,705	83	5,818
Engineering Physics	68	115				11	96	139		441
Environmental		23			28	12	207	139	58	468
Geological		7					15			22
Industrial or Manufacturing			104			28	64	395	43	634
Materials or Metallurgical	93	101				16	187	210		608
Mechanical	356	423	39	43	36	51	1,682	1,049	77	3,756
Mining or Mineral	74	75				4	84	70		307
Software							51	288	9	348
Other	185			53	222	184	863	1,121	136	2,764

TABLE G.2.8.

Total full-time equivalent female postgraduate student enrolment by province and discipline: 2014.

DISCIPLINE	AB	BC	MB	NB	NL	NS	ON	QC	SK	TOTAL
Biosystems	27	60	20			13	131	54	20	325
Chemical	153			19		3	314	141	17	648
Civil	124	55	26	6	11	22	304	277		826
Computer	13	1			11		40	28	7	101
Electrical	86	118	39	7	15	9	596	358	12	1,242
Engineering Physics	11	25				3	21	36		108
Environmental		7			13	3	90	67	26	206
Geological		2					4			7
Industrial or Manufacturing			15			8	13	106	12	154
Materials or Metallurgical	26	37				4	49	57		174
Mechanical	70	59	11	4	4	7	278	159	15	607
Mining or Mineral	20	22					19	22		83
Software							9	65	1	75
Other	69			10	47	16	199	261	36	638

G.3. Institutional

TABLE G.3.1.

Total full-time postgraduate students by institution: 2010 to 2014.

INSTITUTION	2010	2011	2012	2013	2014
Alberta	1,541	1,541	1,495	1,493	1,344
Calgary	1,333	1,519	1,223	898	788
Carleton	552	572	669	717	727
Concordia	1,371	1,517	1,677	1,752	1,879
Dal	342	491	415	520	487
ETS	737	804	1,161	918	1,116
Guelph	117	125	132	128	155
Lakehead	51	46	48	41	56
Laurentian	43	38	55	31	50
Laval	520	490	487	531	531
Manitoba	337	378	414	429	452
McGill	739	579	1,081	969	842
McMaster	659	643	581	706	697
Moncton	17	13	15	15	10
MUN	236	290	348	363	423
Ottawa	382	466	608	810	918
Polytechnique	1,142	1,259	1,273	1,288	1,314
Queen's	438	450	433	446	471
Regina	148	173	170	182	188
RMC	119	112	96	88	92
Ryerson	603	582	718	707	551
Saskatchewan	396	300	324	342	324
SFU	196	211	207	190	194
Sherbrooke	473	482	523	492	485
SMU					2
Toronto	1,388	1,450	1,549	1,688	1,839
UBC	1,045	1,072	1,068	1,074	1,043
UBCO	28	130	140	142	164
UNB	250	226	234	221	166
UOIT	151	151	142	214	158
UQAC	136	134	117	147	94
UQAM					18
UQAR	24	16	19	15	22
UQAT	52	47	38	23	28
UQTR	219	92	101	110	117
UVic	231	257	306	324	304
Waterloo	1,213	1,244	1,293	1,339	1,290
Western	525	566	556	574	582
Windsor	451	456	510	628	670
York ⁶				6	17
TOTAL	18,203	18,920	20,226	20,560	20,607

TABLE G.3.2.

Total part-time postgraduate students by institution: 2010 to 2014.

INSTITUTION	2010	2011	2012	2013	2014
Alberta	0	0	0	0	0
Calgary	333	274	234	158	33
Carleton	173	171	162	139	140
Concordia	97	104	100	87	107
Dal	30	26	17	12	40
ETS	303	450	331	364	387
Guelph	40	37	35	27	28
Lakehead	0	0	1	1	0
Laurentian	6	8	0	26	0
Laval	52	49	55	41	39
Manitoba	52	49	45	43	37
McGill	32	12	58	0	48
McMaster	388	481	464	453	107
Moncton	9	2	0	0	9
MUN	35	53	55	58	76
Ottawa	84	99	110	101	109
Polytechnique	74	88	109	112	114
Queen's	40	38	58	50	35
Regina	21	28	38	41	38
RMC	18	17	20	17	23
Ryerson	112	107	93	150	79
Saskatchewan	0	0	0	0	0
SFU	14	9	8	14	18
Sherbrooke	202	171	153	145	0
SMU					0
Toronto	156	192	214	201	168
UBC	41	36	33	26	111
UBCO	0	0	0	0	0
UNB	49	51	44	41	42
UOIT	27	32	50	63	61
UQAC	0	0	0	0	5
UQAM					0
UQAR	0	0	0	2	0
UQAT	0	0	0	0	2
UQTR	27	21	139	114	76
UVic	0	0	0	0	0
Waterloo	403	397	405	375	304
Western	135	151	55	37	27
Windsor	5	15	19	23	28
York				2	3
TOTAL	2,957	3,167	3,104	2,924	2,292

⁶ Absence of numbers between 2010 and 2012 are a result of York University's recent introduction of three new engineering programs.

TABLE G.3.3.

Total full-time female postgraduate students by institution: 2010 to 2014.

INSTITUTION	2010	2011	2012	2013	2014
Alberta	327	359	365	438	378
Calgary	292	303	301	246	219
Carleton	111	110	137	152	163
Concordia	284	321	363	391	440
Dal	61	72	65	88	89
ETS	124	148	223	186	270
Guelph	26	29	29	30	43
Lakehead	7	5	10	4	9
Laurentian	7	7	9	3	10
Laval	92	101	99	116	116
Manitoba	61	71	85	97	108
McGill	152	128	235	206	194
McMaster	153	164	164	194	186
Moncton	3	3	1	2	2
MUN	47	61	79	89	97
Ottawa	69	104	135	203	252
Polytechnique	290	351	361	379	380
Queen's	101	112	97	100	104
Regina	30	40	45	53	55
RMC	23	25	17	17	15
Ryerson	112	99	117	115	117
Saskatchewan	112	92	88	89	86
SFU	41	41	40	41	45
Sherbrooke	86	85	88	83	87
Toronto	339	369	405	440	492
UBC	264	261	256	262	267
UBCO	3	28	30	23	20
UNB	55	52	59	56	34
UOIT	22	22	21	41	33
UQAC	33	33	26	40	29
UQAM					2
UQAR	2	2	2	1	2
UQAT	10	5	6	4	4
UQTR	19	18	17	28	26
UVic	38	43	49	53	53
Waterloo	274	284	290	303	292
Western	104	116	137	146	152
Windsor	73	79	89	110	105
York				1	5
TOTAL	3,848	4,143	4,541	4,829	4,981

TABLE G.3.4.

Total part-time female postgraduate students by institution: 2010 to 2014.

INSTITUTION	2010	2011	2012	2013	2014
Alberta	0	0	0	0	0
Calgary	99	39	47	24	6
Carleton	30	34	29	24	31
Concordia	13	22	19	13	18
Dal	3	3	1	3	1
ETS	54	77	67	80	90
Guelph	7	6	8	11	12
Lakehead	0	0	0	0	0
Laurentian	2	1	0	4	0
Laval	10	13	14	6	8
Manitoba	12	11	13	8	8
McGill	7	2	12	0	6
McMaster	68	81	77	74	23
Moncton	2	0	0	0	2
MUN	5	6	11	11	13
Ottawa	15	19	18	20	27
Polytechnique	15	20	28	30	40
Queen's	6	8	13	11	6
Regina	3	6	12	10	10
RMC	4	5	4	0	7
Ryerson	14	8	7	19	14
Saskatchewan	0	0	0	0	0
SFU	3	1	1	1	2
Sherbrooke	45	36	31	32	0
Toronto	36	37	47	47	38
UBC	17	11	10	8	34
UBCO	0	0	0	0	0
UNB	6	7	4	10	10
UOIT	3	4	9	12	8
UQAC	0	0	0	0	3
UQAM					0
UQAR	0	0	0	1	0
UQAT	0	0	0	0	0
UQTR	4	2	81	64	44
UVic	0	0	0	0	0
Waterloo	80	77	83	70	56
Western	29	21	3	11	6
Windsor	2	2	2	2	2
York				1	2
TOTAL	595	560	651	607	526

TABLE G.3.5.

Total full-time postgraduate students by institution and discipline: 2014.

INSTITUTION	BIOSYSTEMS	CHEMICAL	CIVIL	COMPUTER	ELECTRICAL	ENGINEERING PHYSICS	ENVIRONMENTAL	GEOLOGICAL	INDUSTRIAL	MATERIALS	MECHANICAL	MINING OR MINERAL	SOFTWARE	OTHER
Alberta		239	305	75	181	68				93	233	74		76
Calgary	65	246	97		153						120			106
Carleton	18		111	12	341		37			2	73			133
Concordia			388		741				89		313		249	99
Dal	38	19	56		84	9	12		27	16	50	4		172
ETS			72		108		59		50		85		16	727
Guelph	29			47			72				7			
Lakehead					35		13				8			
Laurentian												50		
Laval		68	102		127		34			55	131	11		3
Manitoba	56		93		162				103		39			
McGill		90	103		322					134	192			
McMaster	53	86	77		149	58				58	120		43	53
Moncton														10
MUN			46	64	45		28				33			207
Ottawa	20	94	145		376		45				126			113
Polytechnique	112	132	172	137	158	139			174	18	170	55		48
Queen's		78	94		124	20		15			111	30		
Regina				33			47		39				7	61
RMC		28	16		31						12			5
Ryerson		27	95	84	159						123			63
Saskatchewan	55	33			83		6				77			70
SFU						104					90			
Sherbrooke		65	154		123						127			16
SMU						2								
Toronto	216	217	258		470					84	431			163
UBC	188		162		331	0	22	6		101	159	68		
UBCO			85		42						37			
UNB		45	12		37						39			32
UOIT					60						68			30
UQAC							39							55
UQAM					18									
UQAR														22
UQAT														28
UQTR		28			49				40					
UVic				4	167						133			
Waterloo		184	186		450						247			223
Western		153	151		185						93			
Windsor			50		301		30		62	37	189			
York				17										
TOTAL	850	1,834	3,029	472	5,613	400	444	21	583	598	3,635	293	316	2,515

TABLE G.3.6.

Total part-time postgraduate students by institution and discipline: 2014.

INSTITUTION	BIOSYSTEMS	CHEMICAL	CIVIL	COMPUTER	ELECTRICAL	ENGINEERING PHYSICS	ENVIRONMENTAL	GEOLOGICAL	INDUSTRIAL	MATERIALS	MECHANICAL	MINING OR MINERAL	SOFTWARE	OTHER
Alberta														
Calgary	0	6	8		8						6			5
Carleton	5		30	1	71		6			1	7			19
Concordia			19		37				3		9		20	19
Dal	3		2		3	1			2	1	1			27
ETS			49		38		16		7		25		22	231
Guelph	2			7			18				1			
Lakehead														
Laurentian														
Laval			13		10		1		2	1	2			10
Manitoba	2		15		17				4					
McGill		1	9		8					4	26			
McMaster	1	2	12		17	17				5	17		8	28
Moncton														9
MUN			8	3	13		1				9			44
Ottawa	1	6	19		37		6				10			30
Polytechnique	1	4	19	7	7	0			53		7	1		15
Queen's		1	9		7	1					7	11		
Regina				9			9		8				3	9
RMC		8	2		12									1
Ryerson		2	15	8	30						19			5
Saskatchewan														
SFU						18								
Sherbrooke														
Toronto	0	12	33		54					2	61			5
UBC	19		26		17	0	5	4		1	13	20		
UBCO														
UNB	2	7	14		6						4			10
UOIT					15						20			26
UQAC														5
UQAM														
UQAR														
UQAT														2
UQTR		4			10				62					
UVic														
Waterloo		19	32		129						50			73
Western		4	9		2				3		8			
Windsor			7		6		1		2	3	9			
York				3										
TOTAL	36	75	350	38	552	37	62	4	145	17	311	32	54	574

TABLE G.3.7.

Total full-time female postgraduate students by institution and discipline: 2014.

INSTITUTION	BIOSYSTEMS	CHEMICAL	CIVIL	COMPUTER	ELECTRICAL	ENGINEERING PHYSICS	ENVIRONMENTAL	GEOLOGICAL	INDUSTRIAL	MATERIALS	MECHANICAL	MINING OR MINERAL	SOFTWARE	OTHER
Alberta		86	92	13	38	11				26	49	20		43
Calgary	27	66	31		48						21			26
Carleton	7		17	3	80		20			2	10			24
Concordia			112		192				16		37		60	23
Dal	13	3	22		9	3	3		8	4	7			15
ETS			12		20		28		4		17		4	185
Guelph	8			10			25				0			
Lakehead					3		6							
Laurentian												10		
Laval		23	17		16		17			15	25	3		
Manitoba	20		25		39				15		11			
McGill		31	38		56					37	32			
McMaster	22	22	16		44	13				20	23		7	19
Moncton														2
MUN			10	11	14		12				3			46
Ottawa	9	38	25		102		25				23			31
Polytechnique	54	56	55	27	32	36			58	4	32	18		8
Queen's		24	23		22	2		4			21	8		
Regina				7			21		11				0	16
RMC		6	4		2						2			1
Ryerson		9	25	20	36						19			8
Saskatchewan	20	17			12		3				15			19
SFU						24					21			
Sherbrooke		18	32		22						12			3
Toronto	84	92	87		90					20	94			26
UBC	59		42		73	0	7	2		37	20	21		
UBCO			11		7						3			
UNB		16	2		5						4			6
UOIT					20						7			6
UQAC							18							11
UQAM					2									
UQAR														2
UQAT														4
UQTR		12			8				6					
UVic				1	37						15			
Waterloo		55	48		86						40			62
Western		64	39		37						13			
Windsor			4		56		10		12	7	16			
York				5										
TOTAL	322	637	789	97	1,207	89	195	6	131	172	592	81	71	586

TABLE G.3.8.

Total part-time female postgraduate enrolment by institution and discipline: 2014.

INSTITUTION	BIOSYSTEMS	CHEMICAL	CIVIL	COMPUTER	ELECTRICAL	ENGINEERING PHYSICS	ENVIRONMENTAL	GEOLOGICAL	INDUSTRIAL	MATERIALS	MECHANICAL	MINING OR MINERAL	SOFTWARE	OTHER
Alberta														
Calgary		2	2		1						1			
Carleton	3		4	1	18		3			1				1
Concordia			4		7						2		2	3
Dal					0									1
ETS			11		5		9		1		9		2	53
Guelph	1			2			9							
Lakehead														
Laurentian														
Laval			5		2					1				
Manitoba			5		3				1					
McGill		1	1		1					0	2			
McMaster			3		1	6					2		2	9
Moncton														2
MUN			2	1	1		1				2			5
Ottawa	0	3	5		8		2				0			8
Polytechnique	0	2	8	2	1				23		1	1		1
Queen's			2			0					1	2		
Regina				1			4		2				1	2
RMC		5			1									1
Ryerson		2	2	1	4						4			2
Saskatchewan														
SFU						2								
Sherbrooke														
Toronto		6	11		6					1	12			2
UBC	7		9		4	0	1	2		1	1	3		
UBCO														
UNB		3	3		2									1
UOIT					2						1			5
UQAC														3
UQAM														
UQAR														
UQAT														
UQTR		0			1				43					
UVic														
Waterloo		5	8		14						6			23
Western			5		1						0			
Windsor			0						1	1				
York				2										
TOTAL	12	29	90	10	84	8	29	2	70	5	45	6	7	123

A.4. POST GRADUATE DEGREES AWARDED

GD.1. National

TABLE GD.1.1.

Total master's degrees awarded by discipline: 2010 to 2014.

DISCIPLINE	2010	2011	2012	2013	2014
Biosystems	125	135	131	186	153
Chemical	319	338	408	424	469
Civil	722	709	891	879	902
Computer	138	140	164	183	168
Electrical	1,102	1,143	1,354	1,441	1,619
Engineering Physics	76	81	76	75	64
Environmental	86	92	134	129	152
Geological	9	11	9	8	9
Industrial or Manufacturing	114	151	172	236	237
Materials or Metallurgical	68	76	97	97	119
Mechanical	754	784	905	834	950
Mining or Mineral	41	33	66	88	56
Software	54	50	65	88	124
Other	503	718	747	828	945
TOTAL	4,111	4,461	5,219	5,496	5,978

TABLE GD.1.2.

Total doctoral degrees awarded by discipline: 2010 to 2014.

DISCIPLINE	2010	2011	2012	2013	2014
Biosystems	33	44	41	60	50
Chemical	137	125	165	169	185
Civil	178	147	170	187	171
Computer	26	17	25	22	28
Electrical	327	311	330	389	384
Engineering Physics	27	33	38	43	48
Environmental	15	11	16	14	18
Geological	3	2	1	0	1
Industrial or Manufacturing	14	15	18	24	27
Materials or Metallurgical	51	45	52	48	71
Mechanical	150	189	191	236	260
Mining or Mineral	12	13	6	29	14
Software	3	3	0	3	3
Other	76	84	109	106	124
TOTAL	1,052	1,039	1,162	1,330	1,389

TABLE GD.1.3.

Total master's degrees awarded to women by discipline: 2010 to 2014.

DISCIPLINE	2010	2011	2012	2013	2014
Biosystems	50	59	63	74	66
Chemical	109	120	131	145	180
Civil	163	201	253	214	247
Computer	23	27	41	31	35
Electrical	213	203	241	305	354
Engineering Physics	12	19	22	16	14
Environmental	23	26	39	48	69
Geological	3	3	6	2	4
Industrial or Manufacturing	23	39	47	104	71
Materials or Metallurgical	20	17	32	30	39
Mechanical	100	111	126	105	132
Mining or Mineral	10	15	18	16	17
Software	12	14	16	15	23
Other	113	140	131	170	195
TOTAL	874	994	1,166	1,275	1,453

TABLE GD.1.4.

Total doctoral degrees awarded to women by discipline: 2010 to 2014.

DISCIPLINE	2010	2011	2012	2013	2014
Biosystems	16	17	17	25	16
Chemical	40	36	50	39	65
Civil	34	43	39	32	31
Computer	5	6	10	6	7
Electrical	40	40	54	45	54
Engineering Physics	7	5	3	4	8
Environmental	7	6	3	3	4
Geological	2	1	1	0	0
Industrial or Manufacturing	4	2	1	3	7
Materials or Metallurgical	9	9	13	10	21
Mechanical	27	20	18	34	49
Mining or Mineral	0	6	2	5	1
Software	1	2	0	2	2
Other	12	15	28	12	23
TOTAL	204	208	239	220	288

TABLE GD.1.5.

Total master's degrees awarded to visa students by discipline:
2010 to 2014.

DISCIPLINE	2010	2011	2012	2013	2014
Biosystems	32	33	32	61	61
Chemical	104	106	183	156	248
Civil	156	200	320	269	328
Computer	23	40	76	74	99
Electrical	368	482	724	756	1,031
Engineering Physics	20	22	25	24	20
Environmental	32	34	48	69	78
Geological	1	2	0	2	2
Industrial or Manufacturing	35	70	75	83	114
Materials or Metallurgical	25	35	47	48	52
Mechanical	152	264	325	314	436
Mining or Mineral	14	11	36	38	37
Software	20	19	26	51	75
Other	152	305	340	426	551
TOTAL	1,134	1,623	2,257	2,371	3,141

TABLE GD.1.6.

Total doctoral degrees awarded to visa students by discipline:
2010 to 2014.

DISCIPLINE	2010	2011	2012	2013	2014
Biosystems	6	3	3	13	11
Chemical	31	42	45	56	56
Civil	39	23	33	35	48
Computer	2	5	7	6	10
Electrical	69	55	89	110	122
Engineering Physics	2	6	9	11	18
Environmental	3	6	3	4	9
Geological	0	0	0	0	0
Industrial or Manufacturing	0	2	6	5	10
Materials or Metallurgical	13	11	14	20	28
Mechanical	33	47	36	60	96
Mining or Mineral	6	3	1	9	5
Software	2	0	0	2	2
Other	15	21	33	31	44
TOTAL	221	224	279	362	463

GD.2. Provincial

TABLE GD.2.1.

Total master's degrees awarded by province: 2010 to 2014.

PROVINCE	2010	2011	2012	2013	2014
AB	369	505	644	460	494
BC	259	344	404	340	317
MB	49	45	62	62	74
NB	45	59	65	50	67
NL	47	68	79	103	120
NS	105	114	128	173	217
ON	2,106	2,173	2,323	2,652	2,905
QC	1,030	1,053	1,394	1,537	1,644
SK	101	100	120	119	140
TOTAL	4,111	4,461	5,219	5,496	5,978

TABLE GD.2.2.

Total doctoral degrees awarded by province: 2010 to 2014.

PROVINCE	2010	2011	2012	2013	2014
AB	120	130	154	203	221
BC	95	106	98	126	111
MB	21	27	39	28	29
NB	11	6	13	18	16
NL	12	10	7	12	14
NS	12	14	11	16	18
ON	471	463	500	552	520
QC	276	259	313	354	425
SK	34	24	27	21	35
TOTAL	1,052	1,039	1,162	1,330	1,389

TABLE GD.2.3.

Total master's degrees awarded to women by province: 2010 to 2014.

PROVINCE	2010	2011	2012	2013	2014
AB	63	112	159	106	145
BC	62	111	101	87	75
MB	13	11	15	14	14
NB	11	10	9	12	17
NL	17	11	19	28	28
NS	21	16	24	27	26
ON	450	474	496	578	732
QC	223	221	308	389	370
SK	14	28	35	34	46
TOTAL	874	994	1,166	1,275	1,453

TABLE GD.2.4.

Total doctoral degrees awarded to women by province: 2010 to 2014.

PROVINCE	2010	2011	2012	2013	2014
AB	13	25	35	31	44
BC	16	18	16	27	25
MB	2	3	4	4	6
NB	3	1	2	3	4
NL	1	2	0	2	3
NS	4	2	1	5	4
ON	108	100	118	90	103
QC	45	54	57	51	90
SK	12	3	6	7	9
TOTAL	204	208	239	220	288

TABLE GD.2.5.

Total master's degrees awarded to visa students by province: 2010 to 2014.

PROVINCE	2010	2011	2012	2013	2014
AB	144	246	373	215	279
BC	83	161	174	164	142
MB	20	22	23	28	48
NB	31	28	39	31	35
NL	29	56	59	87	103
NS	46	80	84	137	173
ON	429	578	800	946	1,398
QC	290	386	634	676	862
SK	62	66	71	87	101
TOTAL	1,134	1,623	2,257	2,371	3,141

TABLE GD.2.6.

Total doctoral degrees awarded to visa students by province: 2010 to 2014.

PROVINCE	2010	2011	2012	2013	2014
AB	24	26	44	66	84
BC	35	32	39	46	57
MB	3	3	8	5	9
NB	8	2	8	12	7
NL	2	4	4	3	8
NS	1	3	2	3	5
ON	71	73	98	106	134
QC	69	73	67	110	133
SK	8	8	9	11	26
TOTAL	221	224	279	362	463

TABLE GD.2.7.

Total master's degrees awarded by province and discipline: 2014.

DISCIPLINE	AB	BC	MB	NB	NL	NS	ON	QC	SK	TOTAL
Biosystems	10	23	3			8	59	34	16	153
Chemical	140			14		4	249	60	2	469
Civil	119	70	16	9	5	12	368	287	16	902
Computer	25	1			24		70	33	15	168
Electrical	60	80	31	11	7	20	962	434	14	1,619
Engineering Physics	9	17				2	21	15		64
Environmental		30			15	2	75	11	19	152
Geological		8					1			9
Industrial or Manufacturing			24			3	25	167	18	237
Materials or Metallurgical	14	7				6	65	27		119
Mechanical	75	55		13	5	10	543	234	15	950
Mining or Mineral	11	26				1	8	10		56
Software							16	103	5	124
Other	31			20	64	138	443	229	20	945
TOTAL	494	317	74	67	120	217	2,905	1,644	140	5,978

TABLE GD.2.8.

Total doctoral degrees awarded by province and discipline: 2014.

DISCIPLINE	AB	BC	MB	NB	NL	NS	ON	QC	SK	TOTAL
Biosystems	5	15	8			5	12	5		50
Chemical	52			4			76	52	1	185
Civil	30	9	6	3	3	6	56	58		171
Computer	5	3			3		2	15		28
Electrical	39	39	8	6	2	1	172	108	9	384
Engineering Physics	18	8					9	13		48
Environmental							10	2	6	18
Geological							1			1
Industrial or Manufacturing			7			1	5	12	2	27
Materials or Metallurgical	13	11					20	27		71
Mechanical	37	23			3		114	75	8	260
Mining or Mineral	7	3						4		14
Software							3			3
Other	15			3	3		40	54	9	124
TOTAL	221	111	29	16	14	18	520	425	35	1,389

GD.3. Institutional

TABLE GD.3.1.

Total master's degrees awarded by institution: 2010 to 2014.

INSTITUTION	2010	2011	2012	2013	2014
Alberta	206	334	329	281	279
BCIT	0	0	0	0	0
Calgary	163	171	315	179	215
Carleton	148	147	177	193	230
Concordia	373	400	534	572	626
Conestoga	0	0	0	0	0
Dal	105	114	128	173	205
ETS	153	178	239	259	293
Guelph	34	40	46	44	44
Lakehead	21	20	14	16	0
Laurentian	6	0	0	61	0
Laval	100	76	75	70	70
Manitoba	49	45	62	62	74
McGill	101	35	122	157	124
McMaster	215	250	225	255	230
Moncton	7	8	1	2	4
MUN	47	68	79	103	120
Ottawa	116	128	165	241	465
Polytechnique	237	254	281	281	334
Queen's	74	92	103	113	106
Regina	35	36	49	60	76
RMC	32	0	26	22	19
Ryerson	269	247	231	295	189
Saskatchewan	66	64	71	59	64
SFU	29	40	37	38	28
Sherbrooke	51	86	61	65	90
Toronto	391	401	482	496	540
UBC	192	237	300	251	237
UBCO	12	38	22	20	24
UNB	38	51	64	48	63
UNBC	0	0	0	0	0
UOIT	41	67	47	30	36
UQAC	9	11	22	8	12
UQAM	0	0	0	0	5
UQAR	2	5	7	8	2
UQAT	0	5	13	19	10
UQO	0	0	0	0	0
UQTR	4	3	40	98	78
UVic	26	29	45	31	28
Waterloo	436	452	415	502	486
Western	135	132	175	131	187
Windsor	188	195	217	253	373
York	0	2	0		0
TOTAL	4,111	4,461	5,219	5,496	5,978

TABLE GD.3.2.

Total doctoral degrees awarded by institution: 2010 to 2014.

INSTITUTION	2010	2011	2012	2013	2014
Alberta	65	71	78	111	126
BCIT	0	0	0	0	0
Calgary	55	59	76	92	95
Carleton	45	28	23	36	30
Concordia	49	49	70	60	53
Conestoga	0	0	0	0	0
Dal	12	14	11	16	13
ETS	28	29	41	35	44
Guelph	6	2	4	9	7
Lakehead	0	0	0	0	0
Laurentian	1	0	0	31	0
Laval	46	42	24	33	33
Manitoba	21	27	39	28	29
McGill	54	26	59	100	120
McMaster	64	52	66	40	36
Moncton	0	0	0	0	0
MUN	12	10	7	12	14
Ottawa	22	24	28	21	39
Polytechnique	71	80	80	88	117
Queen's	43	30	35	46	36
Regina	10	7	13	7	17
RMC	3	0	8	4	6
Ryerson	18	21	25	42	39
Saskatchewan	24	17	14	14	18
SFU	6	8	13	12	12
Sherbrooke	22	25	25	27	42
Toronto	101	106	115	106	110
UBC	69	82	67	93	67
UBCO	0	2	1	7	7
UNB	11	6	13	18	16
UNBC	0	0	0	0	0
UOIT	0	2	6	10	16
UQAC	4	8	9	5	9
UQAR	0	0	0	0	0
UQAT	0	0	0	0	0
UQO	0	0	0	0	0
UQTR	2	0	5	6	7
UVic	20	14	17	14	25
Waterloo	94	116	115	134	125
Western	55	55	58	53	50
Windsor	19	27	17	20	26
York	0	0	0		0
TOTAL	1,052	1,039	1,162	1,330	1,389

TABLE GD.3.3.

Total master's degrees awarded to women by institution:
2010 to 2014.

INSTITUTION	2010	2011	2012	2013	2014
Alberta	34	66	87	63	81
BCIT	0	0	0	0	0
Calgary	29	46	72	43	64
Carleton	36	36	34	31	51
Concordia	76	88	104	129	124
Conestoga	0	0	0	0	0
Dal	21	16	24	27	19
ETS	28	29	49	39	54
Guelph	11	10	12	11	11
Lakehead	1	3	3	2	0
Laurentian	1	0	0	8	0
Laval	21	12	17	20	20
Manitoba	13	11	15	14	14
McGill	22	5	23	53	31
McMaster	50	48	56	67	90
Moncton	1	0	0	0	0
MUN	17	11	19	28	28
Ottawa	31	23	28	57	125
Polytechnique	62	68	84	74	87
Queen's	14	20	29	32	30
Regina	4	6	7	13	26
RMC	10	0	6	4	2
Ryerson	47	42	39	39	40
Saskatchewan	10	22	28	21	20
SFU	6	13	9	8	5
Sherbrooke	10	14	12	12	10
Toronto	104	104	107	125	146
UBC	49	83	76	62	60
UBCO	2	6	3	11	6
UNB	10	10	9	12	17
UNBC	0	0	0	0	0
UOIT	7	11	2	5	5
UQAC	2	4	3	0	4
UQAR	1	1	0	0	0
UQAT	0	0	0	3	0
UQO	0	0	0	0	0
UQTR	1	0	16	59	40
UVic	5	9	13	6	4
Waterloo	95	108	108	123	112
Western	17	34	39	30	53
Windsor	26	35	33	44	67
York	0	0	0		0
TOTAL	874	994	1,166	1,275	1,453

TABLE GD.3.4.

Total doctoral degrees awarded to women by institution:
2010 to 2014.

INSTITUTION	2010	2011	2012	2013	2014
Alberta	7	16	18	16	22
BCIT	0	0	0	0	0
Calgary	6	9	17	15	22
Carleton	8	7	7	3	1
Concordia	8	7	8	9	12
Conestoga	0	0	0	0	0
Dal	4	2	1	5	4
ETS	4	5	8	3	7
Guelph	2	1	0	1	1
Lakehead	0	0	0	0	0
Laurentian	0	0	0	3	0
Laval	4	9	5	0	0
Manitoba	2	3	4	4	6
McGill	9	3	12	14	30
McMaster	16	16	20	9	8
Moncton	0	0	0	0	0
MUN	1	2	0	2	3
Ottawa	2	5	10	4	5
Polytechnique	16	20	14	20	32
Queen's	10	7	8	6	6
Regina	4	3	4	3	5
RMC	1	0	1	0	2
Ryerson	4	3	4	8	9
Saskatchewan	8	0	2	4	4
SFU	3	1	1	0	4
Sherbrooke	3	5	6	3	7
Toronto	33	19	31	20	23
UBC	7	16	12	24	17
UBCO	0	0	0	1	0
UNB	3	1	2	3	4
UNBC	0	0	0	0	0
UOIT	0	0	1	0	5
UQAC	0	5	4	1	1
UQAR	0	0	0	0	0
UQAT	0	0	0	0	0
UQO	0	0	0	0	0
UQTR	1	0	0	1	1
UVic	6	1	3	2	4
Waterloo	14	17	26	22	26
Western	13	17	8	8	10
Windsor	5	8	2	6	7
York	0	0	0		0
TOTAL	204	208	239	220	288

TABLE GD.3.5.

Total master's degrees awarded by institution and discipline: 2014.

INSTITUTION	BIOSYSTEMS	CHEMICAL	CIVIL	COMPUTER	ELECTRICAL	ENGINEERING PHYSICS	ENVIRONMENTAL	GEOLOGICAL	INDUSTRIAL	MATERIALS	MECHANICAL	MINING OR MINERAL	SOFTWARE	OTHER
Alberta		51	79	25	25	9				14	45	11		20
BCIT														
Calgary	10	89	40		35						30			11
Carleton	13		40	5	66		18			6	28			54
Concordia			116		298				26		83		89	14
Conestoga														
Dal	8	4	12		20	1	2		3	6	10	1		138
ETS			33		30		5		12		41		14	158
Guelph	5			13			24				2			
Lakehead														
Laurentian														
Laval	10	8	18		5		3			6	14	3		3
Manitoba	3		16		31				24					
McGill		12	29		30					18	35			
McMaster		18	8		72	18				12	21		16	65
Moncton														4
MUN			5	24	7		15				5			64
Ottawa	7	51	49		157		22				57			122
Polytechnique	24	23	56	33	35	15			73	3	38	7		27
Queen's		19	20		29	3		1			26	8		
Regina				15			18		18				5	20
RMC		6	3		4						2			4
Ryerson		11	26	52	45						33			22
Saskatchewan	16	2	16		14		1				15			
SFU						17					11			
Sherbrooke		11	35		19						19			6
SMU						1								
Toronto	34	50	102		131					32	151			40
UBC	23		57		53		30	8		7	33	26		
UBCO			13		9						2			
UNB		14	9		11						13			16
UNBC														
UOIT					12						14			10
UQAC							3							9
UQAM					5									
UQAR														2
UQAT														10
UQO														
UQTR		6			12				56		4			
UVic				1	18						9			
Waterloo		57	53		180						70			126
Western		37	45		57						48			
Windsor			22		209		11		25	15	91			
York														
TOTAL	153	469	902	168	1,619	64	152	9	237	119	950	56	124	945

TABLE GD.3.6.

Total doctoral degrees awarded by institution and discipline: 2014.

INSTITUTION	BIOSYSTEMS	CHEMICAL	CIVIL	COMPUTER	ELECTRICAL	ENGINEERING PHYSICS	ENVIRONMENTAL	GEOLOGICAL	INDUSTRIAL	MATERIALS	MECHANICAL	MINING OR MINERAL	SOFTWARE	OTHER
Alberta		18	17	5	22	18				13	24	7		2
BCIT														
Calgary	5	34	13		17						13			13
Carleton			2		17		2				6			3
Concordia			18		19						15			1
Conestoga														
Dal	5		6		1				1					
ETS														44
Guelph	1			2			4							
Lakehead														
Laurentian														
Laval		9	6		10					3	4	1		
Manitoba	8		6		8				7					
McGill		11	16		43					21	29			
McMaster		2	2		9	9				7	4		3	
Moncton														
MUN			3	3	2						3			3
Ottawa		5	6		22		1				5			
Polytechnique	5	20	7	15	20	13			12	3	17	3		2
Queen's		10	8		10			1			7			
Regina							6		2					9
RMC		3	2		1									
Ryerson		4	6		8						16			5
Saskatchewan		1			9						8			
SFU						8					4			
Sherbrooke		7	11		14						10			
SMU														
Toronto	11	15	12		31					7	24			10
UBC	15		7		26					11	5	3		
UBCO			2		1						4			
UNB		4	3		6									3
UNBC														
UOIT					4						10			2
UQAC							2							7
UQAM														
UQAR														
UQAT														
UQO														
UQTR		5			2									
UVic				3	12						10			
Waterloo		22	9		47						27			20
Western		15	9		15						11			
Windsor					8		3		5	6	4			
York														
TOTAL	50	185	171	28	384	48	18	1	27	71	260	14	3	124

A.5. FACULTY MEMBERS BY INSTITUTION AND DISCIPLINE

F.1. Faculty Composition

TABLE F.1.1.

Faculty members by institution: 2014.

INSTITUTION	MALE PROFESSORS	FEMALE PROFESSORS	MALE ASSOCIATE PROFESSORS	FEMALE ASSOCIATE PROFESSORS	MALE ASSISTANT PROFESSORS	FEMALE ASSISTANT PROFESSORS	MALE INSTRUCTORS/LECTURERS	FEMALE INSTRUCTORS/LECTURERS	TOTAL FULL TIME EQUIVALENT
Acadia	1		2	1	1	2	7	-	8
Alberta	88	4	43	4	41	11		191	192
BCIT	39	7	0	0	0	0		46	43
Calgary	74	6	30	11	18	6	7	4	156
Cape Breton	2	0			3	0	5	-	5
Carleton	51	5	54	5	20	7	10	2	152
Concordia	75	11	40	9	17	5	10	2	168
Conestoga	16	1	0	0	0	0	0	0	17
Dal	42	2	21	8	7	2	14	1	97
ETS	73	11	81	15	14	3	126	24	347
Guelph	11	2	15	3	7	5	3	1	46
Lakehead	14	1	10	1	12	1		39	39
Laurentian	10	1	8	3		22	8	-	31
Laval	96	12	26	4	22	2	0	0	162
Manitoba	36	4	18	3	12	3	5	1	82
McGill	42	2	58	7	22	8	0	1	140
McMaster	80	4	39	5	14	10	2	154	148
Moncton	10		7	2	2	1	2	24	28
MUN	24	2	21	4	11	3	3	3	71
NSAC	2	0	5	0	2	1	3	1	14
Ottawa	52	8	22	11	13	5	9	1	121
Polytechnique	109	11	42	8	45	8	15	3	241
Queen's	71	15	36	4	13	3	8	1	149
Regina	18	4	10	1	2	1	3	39	39
RMC	19	1	24	2	14	6	16	2	84
Ryerson	63	6	37	8	9	1	4	1	128
Saskatchewan	34	2	22	3	12	3	2	1	78
SFU	19	2	11	3	3	1	7	2	48
Sherbrooke	61	4	21	2	12	1	101	18	220
SMU	1		1	2	1	5	1	1	5
StFX	1	0	1	0	1	0		3	3
Toronto	114	13	44	14	24	12	16	5	242
UBC	90	11	31	5	13	3	21	9	184
UNB	3	1	10	2	17	4	4	1	42
UNBC	33	6	14	2	4	0	10	0	68
UOIT	3		1			4	0	0	5
UPEI	15		18	5	6	3	21	68	69
UQAC	12	3	12	1	1	1	8	1	39
UQAM	2	0	4	0	3	0	1	10	32
UQAR	7	0	3	0	0	0		10	11
UQAT	5	0	4	0	2	0	3	1	15
UQO	9	1	2	2	1	1	29	45	28
UQTR	18		8	1	6	0	33	-	16
UVic	28	2	18	4	4	1	2	0	59
Waterloo	111	15	63	12	38	11	20	8	276
Western	40	3	28	7	8	2	8	0	95
Windsor	33	2	22	5	4	2	2	1	71
York	12	0	16	4	12	2	3	0	49
TOTAL	1,767	184	1,001	187	493	139	502	94	4,366

A.6. CO-OP, INTERNSHIP AND PROFESSIONAL EXPERIENCE PROGRAMS

C.1. Industry Experience Options by Institution

TABLE C.1.

Co-op, Internships and Professional Experience Programs: 2014.

INSTITUTION	TYPE OF PROGRAM	MANDATORY/OPTIONAL
Alberta	Co-op	Optional
Calgary	Internship	Optional
Carleton	Co-op	Optional
Concordia	Co-op & Internship	Optional
Conestoga	Co-op	Mandatory
Dal	Co-op	Optional
ETS	Co-op	Mandatory
Guelph	Co-op	Optional
Laurentian	Co-op	Optional
Laval	Co-op & Internship	Varies
Manitoba	Co-op	Optional
McGill	Co-op & Internship	Varies
McMaster	Co-op	Optional
Moncton	Co-op	Optional
MUN	Co-op	Mandatory
Ottawa	Co-op	Optional
Queen's	Internship	Optional
Regina	Co-op & Internship	Optional
Ryerson	Co-op & Internship	Varies
Saskatchewan	Internship	Optional
SFU	Co-op	Mandatory
Sherbrooke	Co-op	Mandatory
SMU	Co-op	Optional
Toronto	Internship	Optional
UBC	Co-op	Optional
UNB	Co-op	Optional
UQAR	Co-op	Optional
UQTR	Co-op	Optional
UVic	Co-op	Mandatory
Waterloo	Co-op	Mandatory
Western	Co-op & Internship	Optional
Windsor	Co-op & Internship	Optional

Appendix B

ACCREDITED ENGINEERING PROGRAMS BY INSTITUTION

- This listing of accredited programs includes only engineering programs which lead to a bachelor's degree.
- Institutions listed have voluntarily requested that specific engineering programs be evaluated by the Canadian Engineering Accreditation Board. The terminology requested by the institution is shown.
- A single date which follows the name of a program indicates the year of the first graduating class for which accreditation applies. It also applies to subsequent years and is still enforced.
- A double date following the name of a program indicates the period (inclusive of both years) for which the program was accredited. This may occur if the institution has discontinued the program under that specific name or has not requested renewal of accreditation or if the Accreditation Board has denied such renewal.
- The appearance of a third date indicates that accreditation has been renewed from that particular year on, after a time interval.

ALBERTA, UNIVERSITY OF

Edmonton, Alberta

FACULTY OF ENGINEERING

Agricultural Engineering:	1983-1995
Chemical Engineering:	1965-
Civil Engineering:	1965-
Computer Engineering:	1983-
Electrical Engineering:	1965-
Engineering Physics:	1988-
Materials Engineering:	1999-
Mechanical Engineering:	1965-
Metallurgical Engineering:	1965-2000
Mineral Engineering:	1976-1982
Mineral Process Engineering:	1983-1991
Mining Engineering:	1965-1975, 1983-
Petroleum Engineering:	1978-

BRITISH COLUMBIA, THE UNIVERSITY OF

Vancouver, British Columbia

FACULTY OF APPLIED SCIENCE

Agricultural Engineering:	1965-1978
Bio-Resource Engineering:	1979-2001
Chemical Engineering:	1965-
Chemical and Biological Engineering:	2003-
Civil Engineering:	1965-
Computer Engineering:	2000-

Electrical Engineering:	1965-
Engineering Physics:	1965-
Environmental Engineering (jointly with Northern British Columbia):	2007-
Geological Engineering:	1965-
Integrated Engineering:	2003-
Materials Engineering:	2006-
Mechanical Engineering:	1965-
Metallurgical Engineering:	1965-1987
Metals and Materials Engineering:	1988-2005
Mineral Engineering:	1965-1979
Mining and Mineral Process Engineering:	1980-2005
Mining Engineering:	2004-

BRITISH COLUMBIA-OKANAGAN, THE UNIVERSITY OF

Kelowna, British Columbia

FACULTY OF APPLIED SCIENCE

Civil Engineering:	2010-
Electrical Engineering:	2010-
Mechanical Engineering:	2010-

BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

Burnaby, British Columbia

SCHOOL OF CONSTRUCTION AND THE ENVIRONMENT

Civil Engineering:	2010-
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SCHOOL OF ENERGY

Electrical Engineering:	2011-
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CALGARY, THE UNIVERSITY OF

Calgary, Alberta

SCHULICH SCHOOL OF ENGINEERING

Chemical Engineering:	1969-
Civil Engineering:	1969-
Computer Engineering:	2002-
Electrical Engineering:	1969-
Geomatics Engineering:	1996-
Manufacturing Engineering:	1997-
Mechanical Engineering:	1969-
Oil and Gas Engineering:	2001-
Software Engineering:	2002-
Surveying Engineering:	1982-1997

CARLETON UNIVERSITY

Ottawa, Ontario

FACULTY OF ENGINEERING AND DESIGN

Aerospace Engineering:	1992-
Biomedical and Electrical Engineering:	2010-
Biomedical and Mechanical Engineering:	2012-
Civil Engineering:	1965-
Communications Engineering:	2002-
Computer Systems Engineering:	1984-

Electrical Engineering:	1965-
Engineering Physics:	2003-
Environmental Engineering:	1996-
Mechanical Engineering:	1965-
Software Engineering:	2003-
Sustainable and Renewable Energy Engineering:	2012-

CONCORDIA UNIVERSITY

Montréal, Québec
(formerly Sir George Williams University, 1959-1974)

FACULTY OF ENGINEERING AND COMPUTER SCIENCE

Building Engineering:	1982-
Civil Engineering:	1969-
Computer Engineering:	1983-
Electrical Engineering:	1969-
Industrial Engineering:	1995-
Mechanical Engineering:	1969-
Software Engineering:	2002-

CONESTOGA COLLEGE

Kitchener, Ontario

SCHOOL OF ENGINEERING AND INFORMATION TECHNOLOGY

Electronic Systems Engineering:	2014-
Mechanical Systems Engineering:	2010-

DALHOUSIE UNIVERSITY

Halifax, Nova Scotia
(formerly Dal Tech, 1997-2000 and Technical University of Nova Scotia, 1981-1997 and Nova Scotia Technical College, 1907-1980)

FACULTY OF ENGINEERING

Agricultural Engineering:	1974-2000
Biological Engineering:	1997-
Chemical Engineering:	1965-
Civil Engineering:	1965-
Computer Engineering:	2006-
Core Program:	1980-
Electrical Engineering:	1965-
Engineering Physics:	1987-1991
Environmental Engineering:	2006-
Industrial Engineering:	1969-
Materials Engineering:	2005-
Mechanical Engineering:	1965-
Metallurgical Engineering:	1965-1977, 1981-2005
Mineral Resources Engineering:	2007-
Mining Engineering:	1965-2006

ÉCOLE DE TECHNOLOGIE SUPÉRIEURE

Montréal, Québec
(affiliated with l'Université du Québec)

Génie de la construction:	1993-
Génie des opérations et de la logistique:	2008-

Génie des technologies de l'information:	2006-
Génie et gestion de la construction:	1990-1996
Génie électrique:	1990-
Génie logiciel:	2004-
Génie mécanique:	1990-
Génie de la production automatisée:	1990-

GUELPH, UNIVERSITY OF

Guelph, Ontario

SCHOOL OF ENGINEERING

Agricultural Engineering:	1973-1995
Biological Engineering:	1973-
Biomedical Engineering:	2014-
Computer Engineering:	2014-
Engineering Systems and Computing:	1994-
Environmental Engineering:	1993-
Food Engineering:	1993-2000
Mechanical Engineering:	2013-
Water Resources Engineering:	1973-

LAKEHEAD UNIVERSITY

Thunder Bay, Ontario

FACULTY OF ENGINEERING

Chemical Engineering:	1974-
Civil Engineering:	1974-
Electrical Engineering:	1974-
Mechanical Engineering:	1974-
Software Engineering:	2002-

LAURENTIAN UNIVERSITY

Sudbury, Ontario

SCHOOL OF ENGINEERING

Chemical Engineering:	2006-
Extractive Metallurgical Engineering:	1987-2006
Extractive Metallurgy:	1985-1986
Mechanical Engineering:	2011-
Mineral Resources Engineering:	1987-
Mining Engineering:	1987-

LAVAL, UNIVERSITÉ

Québec, Québec

FACULTÉ DE FORESTERIE, DE GÉOGRAPHIE ET DE GÉOMATIQUE

Génie du bois:	2002-
Génie géomatique:	2007-

FACULTÉ DES SCIENCES DE L'AGRICULTURE ET DE L'ALIMENTATION

Génie agroalimentaire:	1999-
Génie agroenvironnemental:	2002-
Génie alimentaire:	1997-

FACULTÉ DES SCIENCES ET DE GÉNIE

Génie chimique:	1965-
Génie civil:	1965-
Génie des eaux:	2009-
Génie électrique:	1965-
Génie géologique:	1965-
Génie informatique:	1993-
Génie logiciel:	2006-
Génie des matériaux et de la métallurgie:	1990-
Génie mécanique:	1965-
Génie métallurgique:	1965-1990
Génie des mines et de la minéralurgie:	1990-
Génie minier:	1965-1990
Génie physique:	1965-
Génie rural:	1973-2002
Ingénierie/réhabilitation des infrastructures urbaines:	1999-

MANITOBA, THE UNIVERSITY OF

Winnipeg, Manitoba

FACULTY OF ENGINEERING

Agricultural Engineering:	1971-1998
Biosystems Engineering:	1996-
Civil Engineering:	1965-
Computer Engineering:	1987-
Electrical Engineering:	1965-
Geological Engineering:	1965-2001
Industrial Engineering:	1987-2005
Manufacturing Engineering:	2003-2013
Mechanical Engineering:	1965-

MCGILL UNIVERSITY

Montréal, Québec

FACULTY OF AGRICULTURAL AND ENVIRONMENTAL SCIENCES

Bioresource Engineering:	2005-
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FACULTY OF ENGINEERING

Agricultural Engineering (Macdonald College):	1971-2006
Chemical Engineering:	1965-
Civil Engineering:	1965-
Computer Engineering:	1993-
Electrical Engineering:	1965-
Materials Engineering:	2005-
Mechanical Engineering:	1965-
Metallurgical Engineering:	1965-2007
Mining Engineering:	1965-
Software Engineering:	2007-

MCMASTER UNIVERSITY⁷

Hamilton, Ontario

FACULTY OF ENGINEERING

Ceramic Engineering:	1974-1998
Chemical Engineering:	1965-
Chemical Engineering & Bioengineering:	2006-
Civil Engineering:	1989-
Civil Engineering & Computer Systems:	1992-1995
Civil Engineering & Engineering Mechanics:	1965-1988
Computer Engineering:	1981-
Electrical & Biomedical Engineering:	2006-
Electrical Engineering:	1965-
Engineering Physics:	1974-
Manufacturing Engineering:	1982-2005
Materials Engineering:	1990-
Mechanical Engineering:	1965-
Mechatronics Engineering:	2009-
Metallurgical Engineering:	1965-1997
Software Engineering:	2001-

MEMORIAL UNIVERSITY OF NEWFOUNDLAND

St. John's, Newfoundland

FACULTY OF ENGINEERING AND APPLIED SCIENCE

Civil Engineering:	1975-
Computer Engineering:	2002-
Electrical Engineering:	1975-
Mechanical Engineering:	1975-
Naval Architectural Engineering:	1986-1996
Ocean and Naval Architectural Engineering:	1997-
Process Engineering:	2013-
Shipbuilding Engineering:	1982-1985

MONCTON, UNIVERSITÉ DE

Moncton, Nouveau-Brunswick

FACULTÉ D'INGÉNIERIE

Génie civil:	1972-
Génie électrique:	1998-
Génie industriel:	1975-2009
Génie mécanique:	1990-

NEW BRUNSWICK, UNIVERSITY OF

Fredericton, New Brunswick

FACULTY OF COMPUTER SCIENCE AND FACULTY OF ENGINEERING

Software Engineering:	2006-
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FACULTY OF ENGINEERING

Chemical Engineering:	1965-
Civil Engineering:	1965-

⁷ Graduates of programs at this institution may have completed additional non-technical studies, such as a management or society option, that will be listed on their transcripts. These transcripts contain wording such as "(Discipline) Engineering and Society" or "(Discipline) Engineering and Management". Only the engineering component of these programs is accredited by the Canadian Engineering Accreditation Board; thus, even though these options meet the accreditation requirements, only the base engineering programs are listed here.

Computer Engineering:	2001-
Electrical Engineering:	1965-
Forest Engineering:	1972-
Geological Engineering:	1984-
Geomatics Engineering:	1999-
Mechanical Engineering:	1965-
Surveying Engineering:	1972-1999

NORTHERN BRITISH COLUMBIA, UNIVERSITY OF

Prince George, British Columbia

COLLEGE OF SCIENCE AND MANAGEMENT

Environmental Engineering (jointly with British Columbia):	2007-
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NOVA SCOTIA TECHNICAL COLLEGE

(see Dalhousie University)

NSTC offered accredited engineering programs from 1965 to 1980.

NOVA SCOTIA, TECHNICAL UNIVERSITY OF

(see Dalhousie University)

TUNS offered accredited engineering programs from 1981 to 1996. However, students who enrolled prior to April 1, 1997, and graduated after that date can request that their degree be in the name of TUNS.

ONTARIO INSTITUTE OF TECHNOLOGY, UNIVERSITY OF⁸

Oshawa, Ontario

FACULTY OF ENGINEERING AND APPLIED SCIENCE

Automotive Engineering:	2009-
Electrical Engineering:	2009-
Manufacturing Engineering:	2007-
Mechanical Engineering:	2008-
Software Engineering:	2009-

FACULTY OF ENERGY SYSTEMS AND NUCLEAR SCIENCE

Nuclear Engineering:	2007-
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OTTAWA, UNIVERSITY OF

Ottawa, Ontario

FACULTY OF ENGINEERING

Biomedical Mechanical Engineering:	2009-
Chemical Engineering:	1965-
Civil Engineering:	1971-
Computer Engineering:	1990-
Electrical Engineering:	1965-
Mechanical Engineering:	1971-
Software Engineering:	2001-

POLYTECHNIQUE, ÉCOLE

Montréal, Québec
(affiliated with l'Université de Montréal)

Génie aérospatial:	2012-
Génie biomédical:	2012-
Génie chimique:	1965-
Génie civil:	1965-
Génie électrique:	1965-
Génie géologique:	1965-
Génie industriel:	1973-
Génie informatique:	1989-
Génie logiciel:	2005-
Génie des matériaux:	1990-2012
Génie mécanique:	1965-
Génie métallurgique:	1965-1989
Génie des mines:	1991-
Génie minier:	1965-1991
Génie physique:	1965-

QUÉBEC EN ABITIBI-TÉMISCAMINGUE, UNIVERSITÉ DU

Rouyn-Noranda, Québec

UNITÉ D'ENSEIGNEMENT ET DE RECHERCHE EN SCIENCES APPLIQUÉES

Génie électromécanique:	2000-
Génie mécanique:	2010-

QUÉBEC À CHICOUTIMI, UNIVERSITÉ DU

Chicoutimi, Québec

DÉPARTEMENT DES SCIENCES APPLIQUÉES

Génie civil:	2012-
Génie électrique:	2004-
Génie géologique:	1983-
Génie informatique:	1992-
Génie mécanique:	2004-
Génie unifié:	1981-2009
Ingénierie de l'aluminium:	2008-2012

QUÉBEC À MONTRÉAL, UNIVERSITÉ DU

Montréal, Québec

FACULTÉ DES SCIENCES

Génie microélectronique:	2007-
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⁸ Graduates of programs at this institution may have completed additional non-technical studies, such as management option, that will be listed on their degrees and transcripts. These degrees and transcripts contain wording such as "(Discipline) Engineering and Management". Only the engineering component of these programs is accredited by the Canadian Engineering Accreditation Board; thus, even though these options meet the accreditation requirements, only the base engineering programs are listed here.

QUÉBEC EN OUTAOUAIS, UNIVERSITÉ DU

Gatineau, Québec
(formerly Québec à Hull, Université du)

MODULE DE L'INGÉNIERIE

Génie informatique: 2002-

QUÉBEC À RIMOUSKI, UNIVERSITÉ DU

Rimouski, Québec

MODULE DE GÉNIE

Génie des systèmes électromécaniques: 1998-

Génie électrique: 2009-

Génie mécanique: 2009-

QUÉBEC À TROIS-RIVIÈRES, UNIVERSITÉ DU

Trois-Rivières, Québec

ÉCOLE D'INGÉNIERIE

Génie chimique: 1990-

Génie électrique: 1978-

Génie industriel: 1980-

Génie mécanique manufacturier: 1987-1999

Génie mécanique: 2000-

QUEEN'S UNIVERSITY

Kingston, Ontario

FACULTY OF APPLIED SCIENCE

Chemical Engineering: 1965-

Civil Engineering: 1965-

Computer Engineering: 2002-

Electrical Engineering: 1965-

Engineering Chemistry: 1979-

Engineering Physics: 1965-

Geological Engineering: 1975-

Materials and Metallurgical Engineering: 1992-2002

Mathematics and Engineering: 1974-

Mechanical Engineering: 1965-

Metallurgical Engineering: 1965-1991

Mining Engineering: 1965-

REGINA, UNIVERSITY OF

Regina, Saskatchewan

FACULTY OF ENGINEERING AND APPLIED SCIENCE

Electronic Information Systems Engineering: 1986-1994

Electronic Systems Engineering: 1995-

Environmental Systems Engineering: 1997-

Industrial Systems Engineering: 1984-

Petroleum Systems Engineering: 2003-

Regional Environmental Systems Engineering: 1990-1997

Regional Systems Engineering: 1984-1989

Software Systems Engineering: 2007-

Systems Engineering: 1981-1983

ROYAL MILITARY COLLEGE OF CANADA

Kingston, Ontario

FACULTY OF ENGINEERING

Aeronautical Engineering: 2009-

Chemical Engineering: 1965-1981, 2001-

Chemical and Materials Engineering: 1992-2001

Civil Engineering: 1965-

Computer Engineering: 1983-

Electrical Engineering: 1965-

Engineering and Management: 1972-1995

Engineering Physics: 1975-1995

Fuels and Materials Engineering: 1982-1991

Mechanical Engineering: 1965-

RYERSON POLYTECHNICAL INSTITUTE

(see Ryerson University)

RPI offered accredited engineering programs in 1992.

RYERSON POLYTECHNIC UNIVERSITY (RPU)

(see Ryerson University)

RPU offered accredited engineering programs from 1992 to 2002.

RYERSON UNIVERSITY

Toronto, Ontario

(formerly Ryerson Polytechnical Institute, 1964-1992, and Ryerson Polytechnic University, 1992-2002)

FACULTY OF ENGINEERING, ARCHITECTURE AND SCIENCE

Aerospace Engineering: 1992-

Biomedical Engineering: 2012-

Chemical Engineering: 1992-

Civil Engineering: 1992-

Computer Engineering: 2006-

Electrical Engineering: 1992-

Industrial Engineering: 1992-

Mechanical Engineering: 1992-

SASKATCHEWAN, UNIVERSITY OF

Saskatoon, Saskatchewan

COLLEGE OF ENGINEERING

Agricultural Engineering: 1965-1992

Agricultural and Bioresource Engineering: 1992-

Chemical Engineering: 1965-

Civil Engineering: 1965-

Computer Engineering: 2009-

Electrical Engineering: 1965-

Engineering Physics: 1965-

Environmental Engineering: 2011-

Geological Engineering: 1965-

Geological Engineering (Geophysics): 1975-1999

Mechanical Engineering: 1965-

Mining Engineering: 1974-1976

SHERBROOKE, UNIVERSITÉ DE

Sherbrooke, Québec

FACULTÉ DE GÉNIE

Génie biotechnologique:	2008-
Génie chimique:	1973-
Génie civil:	1965-
Génie électrique:	1965-
Génie informatique:	1997-
Génie mécanique:	1965-

SIMON FRASER UNIVERSITY

Burnaby, British Columbia

SCHOOL OF ENGINEERING SCIENCE

Engineering Science ⁹ :	1986-
Mechatronic Systems Engineering:	2011-

SIR GEORGE WILLIAMS UNIVERSITY (SGW)

(see Concordia University)

SGW offered accredited engineering programs from 1969 to 1974.

TORONTO, UNIVERSITY OF

Toronto, Ontario

FACULTY OF APPLIED SCIENCE AND ENGINEERING

Chemical Engineering:	1965-
Civil Engineering:	1965-
Computer Engineering:	1994-
Electrical Engineering:	1965-
Engineering Science:	1965-
Geo-Engineering:	1983-1990
Geological Engineering:	1965-1974
Geological Engineering & Applied Earth Science:	1975-1982
Geological and Mineral Engineering:	1991-1998
Industrial Engineering:	1965-
Materials Engineering:	1996-
Mechanical Engineering:	1965-
Metallurgical Engineering & Materials Science:	1986-1995
Metallurgy & Materials Science:	1965-1985
Mineral Engineering:	1999-

VICTORIA, UNIVERSITY OF

Victoria, British Columbia

FACULTY OF ENGINEERING

Computer Engineering:	1988-
Electrical Engineering:	1988-
Mechanical Engineering:	1992-
Software Engineering:	2007-

WATERLOO, UNIVERSITY OF

Waterloo, Ontario

FACULTY OF ENGINEERING

Chemical Engineering:	1965-
Civil Engineering:	1965-
Computer Engineering:	1989-
Electrical Engineering:	1965-
Environmental Engineering:	1999-
Geological Engineering:	1986-
Management Engineering:	2012-
Mechanical Engineering:	1965-
Mechatronics Engineering:	2008-
Nanotechnology Engineering:	2010-
Software Engineering:	2006-
Systems Design Engineering:	1974-

WESTERN ONTARIO, THE UNIVERSITY OF

London, Ontario

FACULTY OF ENGINEERING

Chemical Engineering:	1965-1971, 2007-
Chemical and Biochemical Engineering:	1972-2006
Civil Engineering:	1965-
Computer Engineering:	2001-
Electrical Engineering:	1965-
Green Process Engineering:	2012-
Integrated Engineering:	2001-
Materials Engineering:	1968-1999
Mechanical Engineering:	1965-
Mechatronic Systems Engineering:	2014-
Software Engineering:	2001-

WINDSOR, UNIVERSITY OF

Windsor, Ontario

FACULTY OF ENGINEERING

Chemical Engineering:	1965-1990
Civil Engineering:	1965-
Electrical Engineering:	1965-
Engineering Materials:	1974-1991
Environmental Engineering:	1991-
Geological Engineering:	1972-1989
Industrial Engineering:	1974-
Mechanical Engineering:	1965-

YORK UNIVERSITY

Toronto, Ontario

FACULTY OF SCIENCE AND ENGINEERING

Computer Engineering:	2007-
Geomatics Engineering:	2007-
Space Engineering:	2007-

⁹ Although reported under Engineering Physics, the SFU program is a broader Engineering Science program with multiple options - Biomedical Engineering, Computer Engineering, Electronics Engineering, Engineering Physics, and Systems Engineering.

Appendix C

CANADIAN DISCIPLINE CATEGORIES AS USED IN THIS REPORT

This section provides a comprehensive listing of programs titles, as provided by the universities, which are currently offered at both the undergraduate (accredited) and postgraduate levels in Canada only. The “discipline” listing is the broad category within which a number of similar programs are grouped. While this report does not provide detailed data on individual programs, the information can be obtained by contacting Engineers Canada.

DISCIPLINE PROGRAM

BIOSYSTEMS	Agricultural and Bioresource Engineering
	Bioresource Engineering
	Biological Engineering
	Biomedical Engineering
	Biomedical and Mechanical Engineering
	Biomedical Mechanical Engineering
	Biomedical: Computer Science
	Biosystems Engineering
	Chemical and Biological Engineering
	Forest Engineering
	Génie agroalimentaire
	Génie agroenvironnemental
	Génie alimentaire
	Génie biomédical
	Génie biotechnologique
CHEMICAL	Chemical and Biochemical Engineering
	Chemical and Petroleum Engineering
	Chemical Engineering
	Chemical Engineering and Bioengineering
	Génie biotechnologique
	Génie chimique
	Nanotechnology Engineering

CIVIL	Architectural Conservation and Sustainability
	Architectural Engineering
	Building Engineering
	Civil Engineering
	Civil and Environmental Engineering
	Génie civil
	Génie de la construction
	Génie et gestion de la construction
	Infrastructure Protection and International Security
	Ingénierie/réhabilitation des infrastructures urbaines
	COMPUTER
Computer Engineering	
Computer Networks Engineering	
Computer Systems Engineering	
Electronic Information Systems Engineering	
Electronic Systems Engineering	
Engineering Systems and Computing	
Génie informatique	
Human Computer Interaction	
Software Engineering and Game Design	
Systems – Electrical & Computer	
ELECTRICAL	Biomedical and Electrical Engineering
	Communications Engineering
	Controls Engineering
	Electrical Engineering
	Electrical and Computer Engineering
	Electrical and Biomedical Engineering
	Electronic Business Technologies
	Energy Systems Engineering
	Electro-mechanical Design
	Electronics Systems Engineering
	Génie des opérations et de la logistique
	Génie des technologies de l'information
	Génie des systèmes électromécaniques
	Génie électrique
	Génie électromécanique
	Génie énergétique
	Génie microélectronique
	Information Systems Security Engineering
	Quality Systems Engineering
Sustainable Energy Engineering	

**ENGINEERING
PHYSICS**

Engineering Chemistry
Engineering Mathematics
Engineering Physics
Engineering Science
Génie physique
Mathematics and Engineering
Mathématiques

ENVIRONMENTAL

Clean Energy Engineering
Energy and Environment Systems
Environmental Engineering
Environmental Systems Engineering
Génie des eaux
Maîtrise en science de la Terre
Maîtrise en génie de l'environnement
Sustainable & Renewable Energy
Sciences de la Terre et de l'atmosphère
Génie ressources et systèmes
Water Resources Engineering

GEOLOGICAL

Génie géologique
Geological Engineering
Geological Engineering (Geophysics)

**INDUSTRIAL OR
MANUFACTURING**

Advanced Design and Manufacturing Institute
Advanced Manufacturing and Process Systems
Électronique industrielle
Génie de la production automatisée
Génie des opérations et de la logistique
Génie industriel
Génie mécanique manufacturier
Génie sécurité et hygiène industrielles
Industrial Engineering
Industrial Systems Engineering
Mechanical Manufacturing Engineering
Manufacturing Engineering

**MATERIALS OR
METALLURGICAL**

Génie des matériaux et de la métallurgie
Génie des matériaux
Génie métallurgique
Ingénierie de l'aluminium
Materials Engineering
Mining/Materials Engineering

MECHANICAL

Automotive Engineering
Génie mécanique
Mechanical Engineering
Mechanical/Industrial Engineering
Mechanical & Materials Engineering
Mechanical & Manufacturing Engineering
Mechanical & Mechatronic Engineering
Mechanical Systems Engineering
Mechatronics Engineering
Mechatronic Systems Engineering
Radiation Science Engineering
Space Engineering

**MINING OR
MINERAL**

Génie des mines
Génie des mines et de la minéralurgie
Génie minéral
Maîtrise en génie minéral
Mineral Engineering
Mining Engineering
Mineral Resources Engineering
Natural Resources Engineering

SOFTWARE

Génie logiciel
Information Systems Science Engineering
Software Engineering
Software Engineering Entrance Program
Software Engineering & Virtual Systems Design
Software Systems Engineering

OTHER

Aeronautical Engineering
 Aerospace Engineering
 Centre for Business, Entrepreneurship & Technology
 Civil and Geological Engineering
 Core Program
 Doctorat en ingénierie
 Doctorat en ressources minérales
 Engineering and Public Policy
 Engineering Design
 Engineering Management
 Engineering Systems and Computing
 Engineering Management
 Fire Protection Engineering
 Génie aérospatial
 Génie du bois
 Génie géomatique
 Génie nucléaire
 Génie papetier
 Génie sciences des pâtes et papiers
 Génie des technologies de l'information
 Génie unifié
 General Engineering
 Geodesy and Geomatics
 Geo-engineering
 Geomatics Engineering
 Green Process Engineering
 Information and Systems Engineering
 Integrated Engineering
 Management Engineering
 Management Sciences
 Nuclear Engineering
 Ocean and Naval Architectural Engineering
 Oil and Gas Engineering
 Petroleum Engineering
 Petroleum Systems Engineering
 Process Engineering
 Pulp & Paper Engineering
 Systems Design Engineering
 TIM (Systems)
 Technology Management
 Telecommunications Technical Management

**YEAR ONE/TWO
 COMMON YEAR**

Common First and Second Year
 Engineering Entrance
 Year One - Common

The discipline Engineering Science (E.Sci.) involves science-intensive studies in engineering physics, engineering bioscience, engineering chemistry and other specializations offered by universities with accredited engineering science programs.

Several universities in Canada have common first-year and, in some cases, second-year programs. Students in these programs do not declare a discipline of study in their first year or, as applicable, second year. The total number of students in common first, second and qualifying year programs have been separated from the "Other" category, beginning with the 1997 data. This subdivision will be continued in future years.

Appendix D

ASSOCIATED UNIVERSITIES EXPLAINED

Dalhousie University, Royal Military College of Canada (RMC), and Associated Universities

The bachelor of engineering degree awarded by Dalhousie University is normally conferred in association with one of several associated universities. The program of studies is divided into two parts: the associated universities offer programs in engineering covering the first part of the requirements for the degree and the Faculty of Engineering at Dalhousie offers courses in several departments of engineering covering the second part. There are other higher educational institutions in Canada that operate under this model. Under the CEAB's regulations for granting credits, a formally documented validation procedure must be in place.

Some of the associated universities include the following:

- Acadia University
- University of Cape Breton
- Dalhousie University
- Mount Allison University (as of 2000, no longer offering engineering programs)
- Nova Scotia Agricultural College
- St. Francis Xavier University
- Saint Mary's University
- University of Prince Edward Island

Prior to 1995, the following two associated universities were included with the accreditation of the engineering programs at RMC. Both institutions have stopped offering engineering.

- Royal Roads Military College (prior to 1995)
- Collège militaire royal de Saint-Jean (prior to 1995)

Appendix E

SURVEY PROCEDURES AND DATA COMPILATION METHODOLOGY

Survey Procedures

Each year, Engineers Canada sends Canadian higher education institution faculties of engineering and applied science a questionnaire requesting statistics on full-time and part-time enrolment in their undergraduate and post-graduate programs. The institutions are also asked to provide data on the number of undergraduate and post-graduate degrees that have been awarded for the same calendar year being surveyed. Other information requested includes a gender breakdown for enrolment, as well as the number of foreign (visa) students enrolled in the programs.

Engineers Canada aims to produce a summary of the data by the summer, in order to support such activities as recruitment and planning for the upcoming academic year. The full report on engineering enrolment and degrees awarded is published and distributed several months later.

Compilation and Interpretation of Data

The enrolment and degrees awarded data is compiled into the Engineers Canada Enrolment & Degrees Awarded database. Prior to the publication of this report, summarized tables of the data are returned to the engineering faculties for verification.

The tabulations, which are found in Appendix A, list the enrolment and degrees awarded for undergraduate engineering programs that have been accredited by the Canadian Engineering Accreditation Board of Engineers Canada. Master's and doctoral programs that are offered by the universities with accredited undergraduate engineering programs are also included. Further information is provided on faculty composition as well as cooperative, internship and professional experience programs.

The data tabulations are further subdivided to provide national, provincial, and institutional level information on enrolment as well as degrees awarded by engineering discipline, gender, and visa students.

Each year, data is collected on undergraduate enrolment in engineering programs that will be seeking accreditation. These are newer programs that have not produced any graduates as of the year of reporting. The Accreditation Board undertakes accreditation of these programs in the year in which the first students will graduate.

Data Limitations

Because of the variable nature of the titles applied to university engineering programs, the discipline headings are general in nature. Some of the data reporting may represent the "best fit" of a particular program, as defined in Appendix C of this report.

Data Utilization

Information presented in this report can be used for a variety of purposes:

- Enabling engineering students to make informed academic and career choices;
- Allowing employers and governments to determine the availability of qualified professional engineers in traditional and emerging areas of practice;
- Keeping the engineering profession abreast of current and future trends in engineering supply, the development and impact of technology, and the needs of employers to allow the development of appropriate standards for academic programs, entry into the engineering profession, and the maintenance of high practice standards in the interests of public safety and well-being; and,
- Assisting universities in preparing academic curricula and planning engineering programs that reflect advanced academic standards and emerging fields of study.

**Further breakdown of the data can be requested
by contacting Engineers Canada.**



Engineers Canada

300-55 Metcalfe Street, Ottawa, Ontario K1P 6L5
Tel.: 613.232.2474
Fax: 613.230.5759
email: research@engineerscanada.ca