engineerscanada
ingénieurscanada

2016 Canadian Engineers for Tomorrow

Trends in Engineering Enrolment and Degrees Awarded 2016

Trends in Engineering Enrolment and Degrees Awarded 2012-2016

Message from the Chief Executive Officer

Engineers Canada is pleased to publish this year's enrolment and degrees awarded report summarizing trends in post-secondary engineering education in Canada. This document comprises information on all academic terms from the calendar years 2012 through 2016.

Canadian post-secondary institutions continue to report a strong growth in the number of students pursuing engineering degrees. Undergraduate enrolment increased a total of 21.3 per cent from 2012 and 3.0 per cent from 2015, reaching 84,406 students in 2016. It is encouraging to see that every engineering discipline displayed higher undergraduate enrolment numbers in 2016 than in 2012, and that post-graduate enrolment also continues to grow, reaching a total of 23,489 students.

We are excited to report that the proportion of female students enrolled in undergraduate and master's engineering programs established new records, reaching 20.7 per cent and 25.3 per cent of total enrolment, respectively. We hope that this achievement will motivate engineering education and the engineering profession to break new records in the years to come.

Canadian engineering programs remain a popular choice for international students. In 2016, the number of undergraduate international students reached 13,662 or 16.2 per cent of the total.

For the second consecutive year, Engineers Canada collected data regarding Indigenous students' enrolment and degrees awarded. Similar to the female population in engineering programs, Indigenous peoples are greatly underrepresented, as approximately one per cent of reported undergraduate students identify as Indigenous peoples. This is much less than the 4.9 per cent of Canadians who identify as Indigenous peoples (Statistics Canada 2017).

Engineers Canada will continue to track this information in the coming years to identify trends and to further encourage enrolment and achievement in post-secondary engineering programs that reflect Canada's diversity.

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. Cover Image Credit: University of Ottawa. Report By: Vinicius Rossi

Introduction

The Engineering Enrolment and Degrees Awarded Report is an annual examination of Canada's undergraduate and postgraduate engineering programs that evaluates trends in part- and full-time student enrolment and degrees awarded over a five-year period. In 2016, 49 universities provided information on their enrolment, programs, and degrees awarded.

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 doctoral levels are compared, along with men and women studying and graduating from engineering programs. For the second year, data regarding Indigenous peoples' enrolment and graduation from engineering programs are presented in this report. Engineers Canada plans to continue this data collection in coming years to be able to identify emerging trends.

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. Engineers Canada greatly appreciates the contribution of these higher education institutions.

CANADIAN ENGINEERING ENROLMENT AND DEGREES AWARDED FACTS - 2016

	UNDERGRADUATE	MASTER'S	DOCTORATE
ENROLMENT			
Total number of students	84,406	14,229	9,260
Most popular disciplines	Mechanical, Civil	Electrical, Mechanical	Electrical, Mechanical
Fastest growing disciplines *2015-2016 | 2012-2016*	Eng. Physics, Software	Civil, Software	Software, Software
Fastest growing provinces *2015-2016 | 2012-2016*	NS, ON	NL, SK	NL, NL
DEGREES AWARDED			
Total number of students	14,905	6,539	1,546
Most popular disciplines	Mechanical, Civil	Electrical, Mechanical	Electrical, Mechanical
Fastest growing disciplines *2015-2016 | 2012-2016*	Biosystems, Biosystems	Geological, Software	Min./Mineral, Min./Mineral
Fastest growing provinces *2015-2016 | 2012-2016*	MB, MB	NL, SK	NL, NL

Undergraduate students

Total undergraduate student enrolment

Undergraduate student enrolment in accredited engineering programs continues to grow, reaching 84,446 students in 2016; an increase of 3.0 per cent from 2015 and 21.3 per cent from 2012.

Chart 1.1 indicates that when engineering programs seeking accreditation—but not yet accredited —are included in the sum, the total undergraduate enrolment rises to 85,703 students, reflecting an increase of 3.3 per cent from 2015 and 21.1 per cent from 2012.

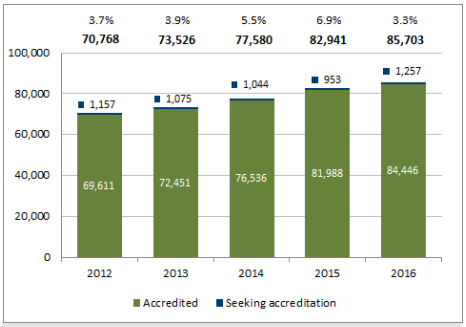


Chart 1.1 - Undergraduate enrolment (2012-2016, full-time equivalent)
The top of the chart contains the percentage growth relative to the previous year as well as the sum of values represented by each column.

Total undergraduate student enrolment by discipline

Once again this year, the most popular undergraduate engineering disciplines were mechanical engineering, civil engineering, and electrical engineering, representing 22.4 per cent, 14.7 per cent and 13.9 per cent of total undergraduate enrolment respectively. On the other hand, the fields that accounted for the smallest proportion of undergraduate enrolment in 2016 were mining or mineral engineering (1.5 per cent), materials or metallurgical engineering (1.1 per cent), and geological engineering (0.9 per cent).

Engineering physics (15.3 per cent), software engineering (14.4 per cent), and computer engineering (13.1 per cent) presented the highest growth rate over last year. Likewise, the disciplines that experienced the largest cumulative growth from 2012 were software engineering (83.0 per cent), biosystems engineering (67.0 per cent), and computer engineering (55.5 per cent).

Conversely, mining or mineral engineering (11.8 per cent), materials or metallurgical engineering (5.3 per cent), and geological engineering (4.2 per cent) had the greatest rate of decline since last year. Despite this reduction from the previous year, it is important to note that all engineering fields displayed greater enrolment numbers than in 2012, suggesting that the observed rates of decline over the last year were not trends observed over the past five years.

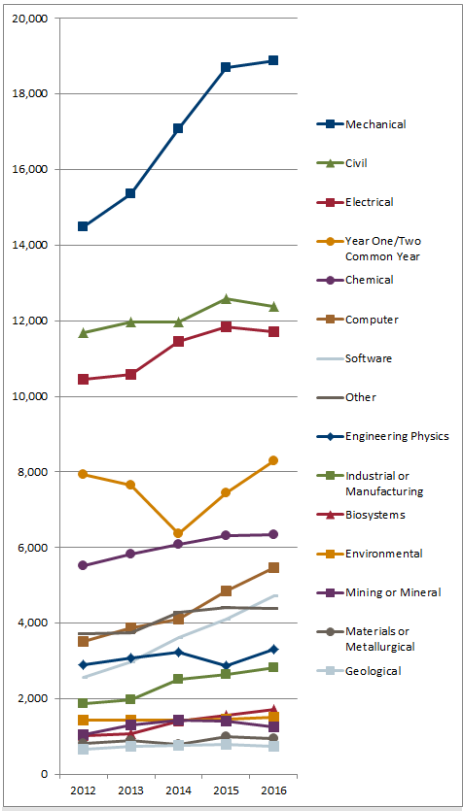


Chart 1.2 - Undergraduate enrolment by program (2012-2016, full-time equivalent)

Total undergraduate student enrolment by province

While the University of Prince Edward Island is the only university with engineering programs in the province, it did not provide any data to Engineers Canada. Therefore, the province of Prince Edward Island is not accounted for in this report.

The highest proportion of undergraduate enrolment continues to belong to Ontario and Quebec. In 2016, these provinces accounted for 45.0 per cent and 25.6 per cent of total enrolment, respectively. Furthermore, Chart 1.3 indicates that Nova Scotia and Ontario underwent the largest percentage increase in enrolment since last year, with growths of 8.0 per cent and 4.4 per cent, respectively.

Likewise, the highest cumulative enrolment growths from 2012 were seen in Ontario (31.4 per cent) and Saskatchewan (31.0 per cent). During this time, there was a total of 20 newly accredited programs in Canada, including 12 in Ontario and one in Saskatchewan, which contributed to this growth.

By contrast, British Columbia was the only province to experience a decrease in the number of undergraduate students enrolled in engineering programs from 2015 (-2.1 per cent), while New Brunswick and British Columbia were the only provinces to experience a cumulative decrease from 2012, revealing a reduction of 13.0 per cent and 8.3 per cent, respectively. Program closure did not contribute to the decrease in enrolment as there were no engineering programs that were discontinued during that time period in these two provinces.

Chart 1.3 displays the average rate of change in undergraduate enrolment by provinces for the periods of 2015-2016 and 2012-2016.

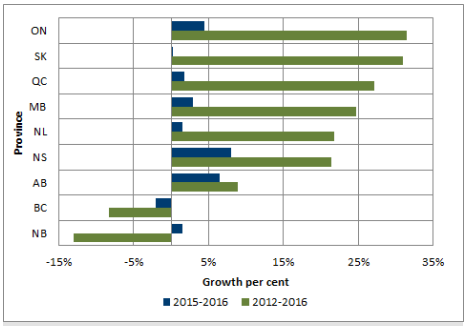


Chart 1.3 - Average rate of growth in undergraduate

enrolment of accredited programs by province (2012-2016 and 2015-2016, full-time equivalent)

Total undergraduate degrees awarded

The number of undergraduate degrees awarded increased by 2.4 per cent from the previous year, totalling 14,905 in 2016. This characterizes a slower growth rate when compared to the average annual increase of 4.1 per cent for the period of 2012 to 2016. Cumulatively, the number of degrees awarded has increased 20.4 per cent from 2012.

Chart 1.4 shows the trends in degrees awarded for the period of 2012 to 2016.

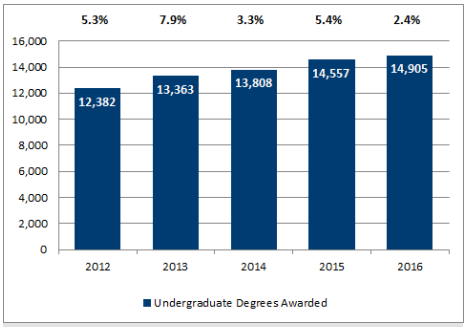


Chart 1.4 - Undergraduate degrees awarded (2012-2016)
The top of the chart contains the percentage growth relative to the previous year.

Chart 1.5 shows that Manitoba, New Brunswick, and Nova Scotia witnessed the highest increase in undergraduate degrees awarded from 2015, with growths of 17.0 per cent, 10.7 per cent, and 8.8 per cent, respectively. Conversely, British Columbia and Saskatchewan were the only provinces to see decreases, with the number of degrees awarded decreasing by 3.2 per cent and 12.4 per cent, respectively. Moreover, while Nova Scotia experienced a decrease of 12.8 per cent in degrees awarded from 2012, every other province observed an increase of at least 13 per cent, except for Saskatchewan, which produced a constant number of degrees awarded for the period.

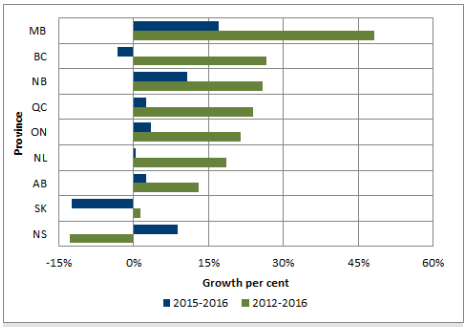


Chart 1.5 - Average rate of growth in undergraduate degrees awarded by province (2012-2016 and 2015-2016)

In keeping with the trends in undergraduate enrolment, the mechanical engineering, civil engineering, and electrical engineering programs awarded the greatest number of degrees, representing 25.4 per cent, 18.5 per cent, and 16.3 per cent of total degrees awarded, respectively. Furthermore, biosystems engineering exhibited the largest growth in degrees awarded from 2015, with an increase of 18.1 per cent, as well as from 2012, with a cumulative increase of 82.6 per cent. This growth is partially explained by the fact that six out of the 20 newly accredited programs in the past five years were biosystems programs, demonstrating that its demand has been increasing significantly in the past few years.

Even though four engineering disciplines experienced a decrease in the total number of degrees awarded from 2015, every discipline has awarded more degrees in 2016 than in 2012, with chemical engineering displaying the slowest rate of growth (5.6%).

Chart 1.6 indicates the average rate of growth of undergraduate degrees awarded by discipline for the periods of 2012 to 2016 and 2015 to 2016.

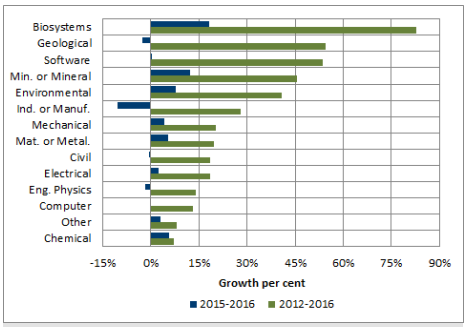


Chart 1.6 - Average rate of growth in undergraduate degrees awarded by discipline (2012-2016 and 2015-2016)

Graduate students

Total graduate student enrolment

Graduate student enrolment increased by 1.7 per cent from 2015, totalling 23,489 students in 2016. This is a considerably slower growth rate when compared to a 2.5 per cent annual average over the past five years. Cumulatively, graduate student enrolment has increased 10.1 per cent since 2012.

Chart 1.7 displays the trends in full-time equivalent graduate student enrolment from 2012 to 2016.

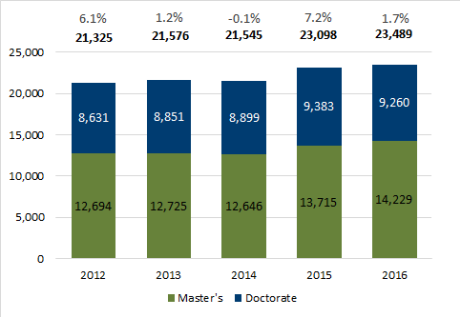


Chart 1.7 - Graduate Student Enrolment (2012-2016, full-time equivalent)
The top of the chart contains the percentage growth relative to the previous year as well as the sum of values represented by each column.

The province that displayed the highest growth in master's enrolment over the previous year was Newfoundland and Labrador (19.7 per cent), while the one that displayed the highest cumulative growth since 2012 was Saskatchewan (32.5 per cent). The largest decrease from 2015 was observed in British Columbia (-18.2 per cent), while the largest decrease from 2012 was seen in New Brunswick (-22.8 per cent).

Similarly, the highest growth in doctoral enrolment from both 2012 and 2015 happened in Newfoundland and Labrador (113 and 29 per cent respectively), while the largest decreases were seen in Saskatchewan (from 2015; 29.7 per cent) and New Brunswick (from 2012; 18.4 per cent).

Charts 1.8 and 1.9 display the average rate of growth in graduate enrolment by province.

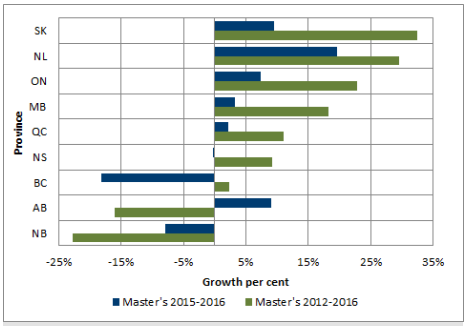


Chart 1.8 - Average rate of growth in master degrees enrolment by province (2012-2016 and 2015-2016, full-time equivalent)

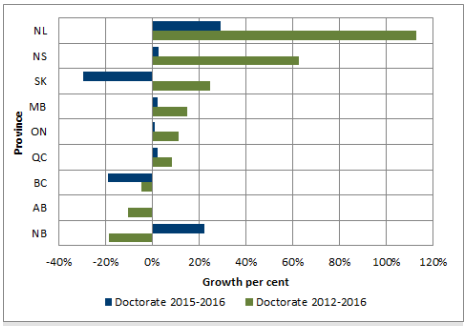


Chart 1.9 - Average rate of growth in doctoral degrees enrolment by province (2012-2016 and 2015-2016, full-time equivalent)

Total post-graduate degrees awarded

A total of 6,539 master's and 1,546 doctoral degrees were awarded in 2016 for a combined sum of 8,085 post-graduate degrees awarded. This corresponds to a growth of 4.6 per cent in master's degrees and of 8.8 per cent in doctoral degrees awarded when compared to 2015. This number has increased by 26.7 per cent from 2012, with a 5.4 per cent growth from 2015, representing a much greater growth in degrees awarded than the growth in post-graduate enrolment.

Chart 1.10 showcases the trends in post-graduate degrees awarded for the period of 2012 to 2016.

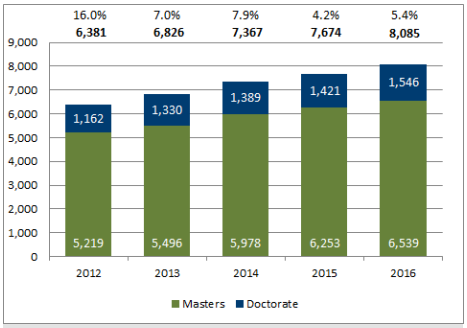


Chart 1.10 - Post-graduate degrees awarded (2012-2016)
The top of the chart contains the percentage growth relative to the previous year as well as the sum of values represented by each column.

New Brunswick displayed the fastest growth in number of post-graduate degrees awarded since 2015 (85.7 per cent), while Nova Scotia displayed the largest decrease (-55.8 per cent).

Chart 1.11 indicates the average growth in master's degrees awarded by province for the periods of 2012 to 2016 and 2015 to 2016, while Chart 1.12 indicates the same trends for doctorate degrees.

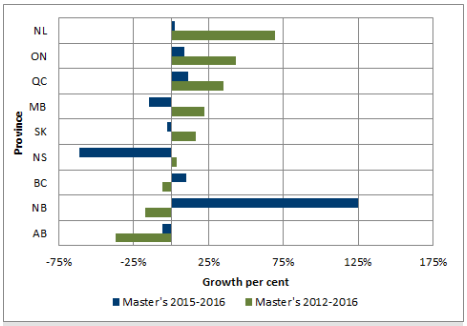


Chart 1.11 - Average rate of growth in master degrees awarded by province (2012-2016 and 2015-2016)

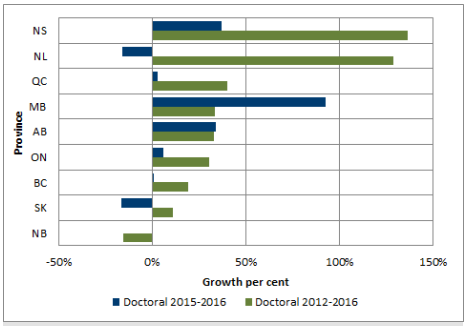
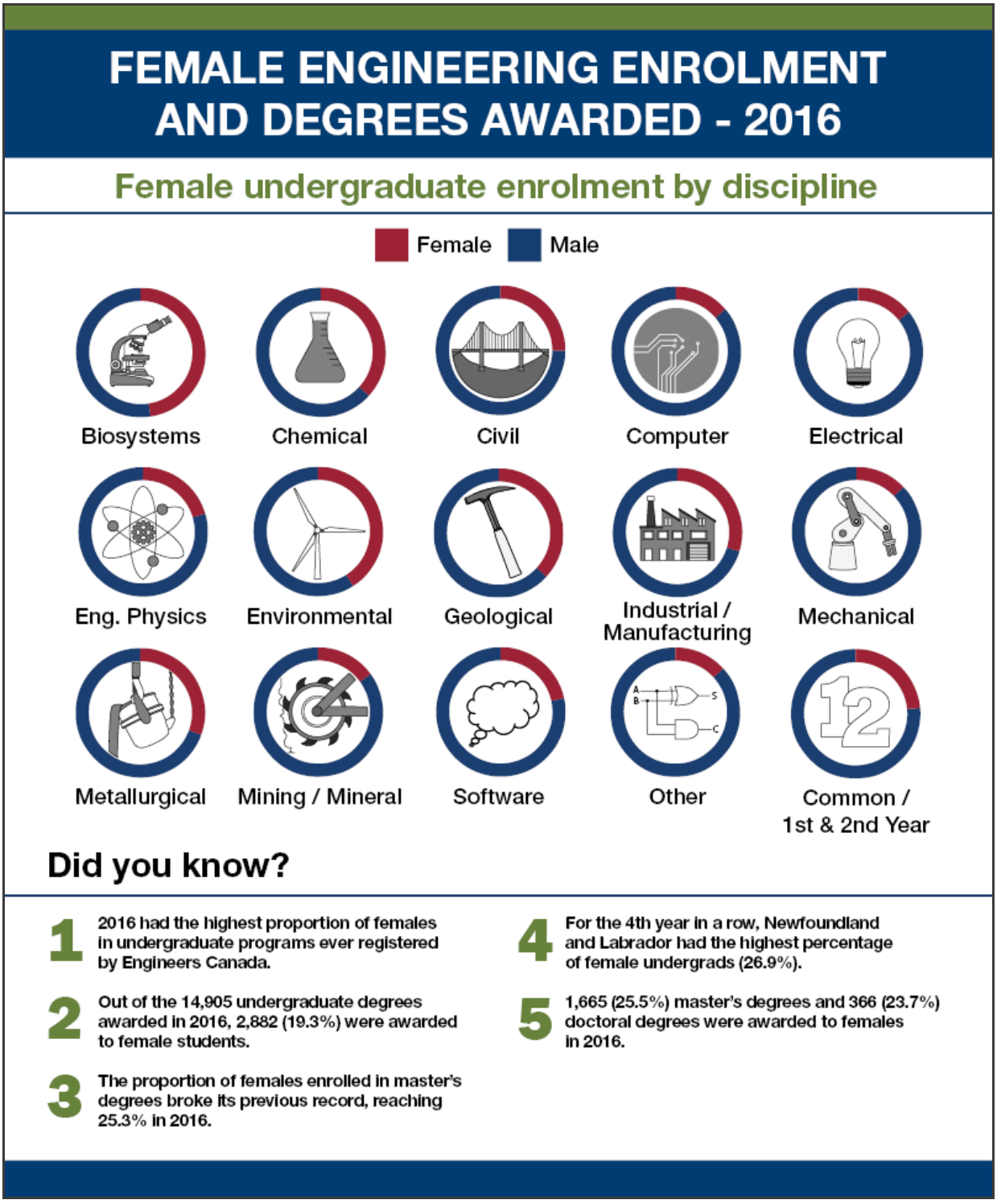


Chart 1.12 - Average rate of growth in doctoral degrees awarded by province (2012-2016 and 2015-2016)

Total female undergraduate enrolment



For the first time since 2001, female undergraduate enrolment broke the 20 per cent barrier in 2016, with a 0.8 percentage point increase from 19.9 per cent to 20.7 per cent. This corresponds to the highest proportion of females enrolled in engineering ever registered by Engineers Canada, above the previously established record of 20.6 per cent in 2001. Female undergraduate enrolment has increased from 16,340 students in 2015 to 17,481 students in 2016, a 7.0 per cent increase.

Chart 2.1 indicates the trends in female undergraduate enrolment from 1991 to 2016.

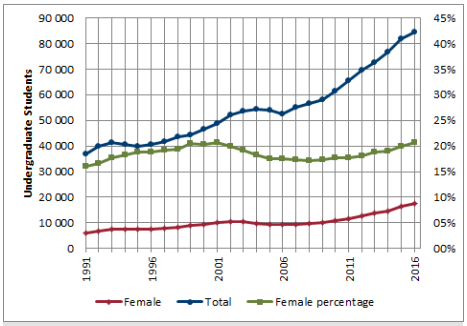


Chart 2.1 - Female undergraduate enrolment (1991-2016, full-time equivalent)

Female undergraduate enrolment by discipline

The disciplines that presented the highest percentages of female undergraduate enrolment in 2016 were biosystems engineering, environmental engineering, and geological engineering with 47.5 per cent, 36.5 per cent, and 25.1 per cent of total enrolment, respectively. Although these programs account for 9.8 per cent of total female enrolment, they only accounted for 4.7 per cent of the total enrolment in engineering programs. Similarly, four out of the five programs with the highest percentage of female enrolment were also four out of the five programs with the lowest proportion of overall enrolment in engineering (refer to Chart 2.3).

The disciplines with the lowest percentages of female undergraduate enrolment were electrical (14.3 per cent), computer (13.7 per cent), software (13.2 per cent), and mechanical engineering (12.9 per cent). When combined, these four programs accounted for 48.8 per cent of the total number of students enrolled in engineering (Chart 2.3), while accounting for only 31.3 per cent of female enrolment.

Furthermore, the disciplines that presented the highest growth in the proportion of females were materials/metallurgical engineering and biosystems engineering, which went from 27.1 per cent and 44.9 per cent in 2015 to 30.5 per cent and 47.5 per cent in 2016 respectively.

Chart 2.2 showcases the percentage of female enrolment by discipline in 2016.

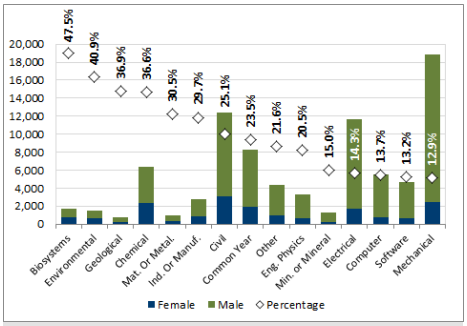


Chart Chart 2.2 - Percentage of female undergraduate enrolment by discipline (2016, full-time equivalent)

Chart 2.3 indicates the average growth in the proportion of females relative to overall enrolment by discipline for the periods of 2012 to 2016 and 2015 to 2016.

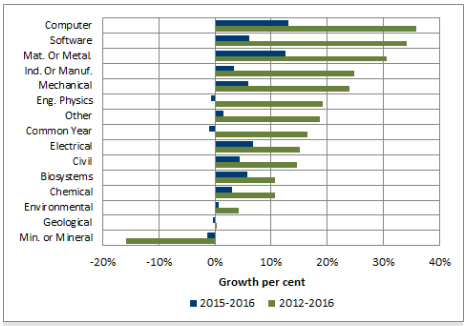


Chart 2.3 - Average rate of growth in undergraduate

enrolment of females by discipline (2012-2016 and 2015-2016, full-time equivalent)

Female undergraduate enrolment by province

For the fourth year in a row, Newfoundland and Labrador had the highest percentage of female undergraduates (26.9 per cent), increasing from 26.1 per cent in 2015 and 21.9 per cent in 2012. Conversely, Saskatchewan displayed the lowest percentage of female enrolment in 2016, with only 18.6 per cent in the undergraduate engineering student population; a decrease from 18.8 per cent reported in 2015 and 19.3 per cent in 2012. Except for Saskatchewan (-1.1 per cent) and New Brunswick (-15.4 per cent), every province has experienced an increase in the proportion of female undergraduate enrolment since the previous year.

Chart 2.4 indicates the percentage of female undergraduate enrolment by province in 2016, while Chart 2.5 shows the average growth of female enrolment by province in the periods of 2012 to 2016 and 2015 to 2016.

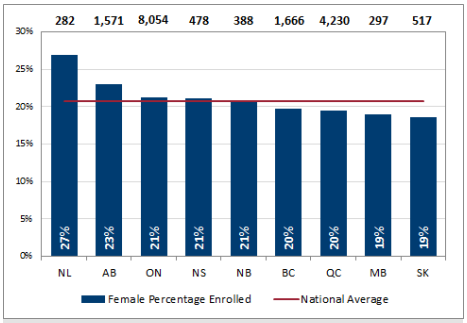


Chart 2.4 - Percentage of female undergraduate enrolment by province (2016, full-time equivalent)
The top of the chart contains the sum of values represented by each column.

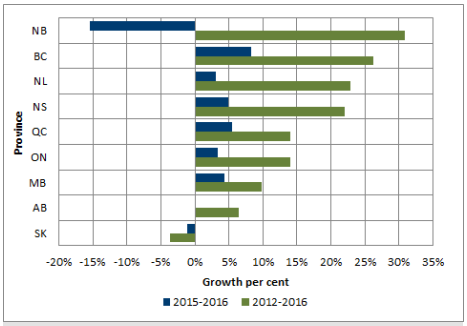


Chart 2.5 - Average growth in the proportion of female undergraduate enrolment by province (2012-2016 and 2015-2016, full-time equivalent)

Female undergraduate degrees awarded

Out of the 14,905 engineering degrees awarded in 2016, 2,882 were awarded to females, accounting for 19.3 per cent of the sampled population. This indicates an increase of 0.5 per cent when compared to the 2,740 degrees awarded to females in the previous year. Furthermore, this proportion is not suggestive of any significant gender differences in completion rates when compared to the 18.7 per cent average proportion of females in undergraduate enrolment over the past five years.

Chart 2.6 showcases the trends in the proportion of undergraduate degrees awarded to females.

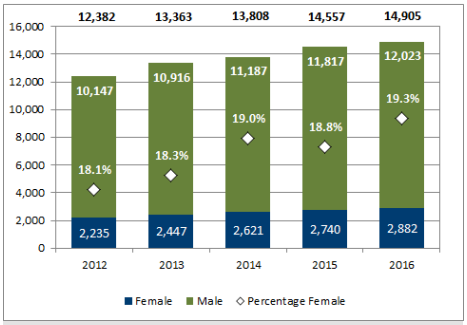


Chart 2.6 - Female undergraduate degrees awarded (2012-2016)
The top of the chart contains the sum of values represented by each column.

The province with the highest proportion of female undergraduate degrees awarded was Alberta (21.2 per cent), followed by Ontario (20.2 per cent), and Saskatchewan (20.0 per cent). Moreover, Ontario had the greatest increase in the proportion of female undergraduate degrees awarded when compared to 2015, with a growth of 2.6 percentage points overall.

Chart 2.7 indicates the percentage of undergraduate degrees awarded to females by province in 2016.

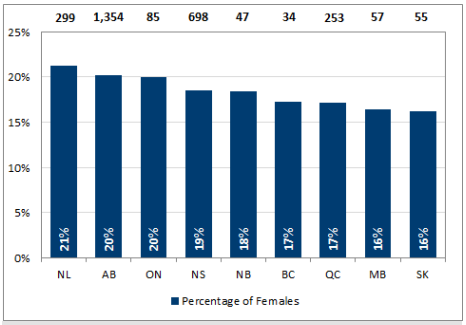


Chart 2.7 - Female undergraduate degrees awarded by province (2016)
The top of the chart contains the sum of values represented by each column.

Although biosystems engineering contains the highest percentage of undergraduate degrees awarded to females, this proportion has fallen from 50.0 per cent in 2012 to 41.4 per cent in 2016. Furthermore, the disciplines that had the highest growth over the previous year in the proportion of female undergraduate degrees awarded were that of other engineering programs (6.2 per cent)— which includes a wide variety of programs (see Appendix C)— and materials/metallurgical engineering (4.9 per cent). Likewise, the categories that presented the highest growth from 2012 were that of other engineering programs (9.5 per cent) and industrial/manufacturing engineering (3.8 per cent).

The proportion of female undergraduate degrees awarded should experience a consistent growth in the coming years in certain disciplines due to the cumulative increase in the proportion of female undergraduate enrolment in those disciplines, as illustrated in Chart 2.3. This should be especially reflected in the disciplines of computer engineering, software engineering, and materials/metallurgical engineering.

Chart 2.8 shows the number of undergraduate degrees awarded by gender and discipline.

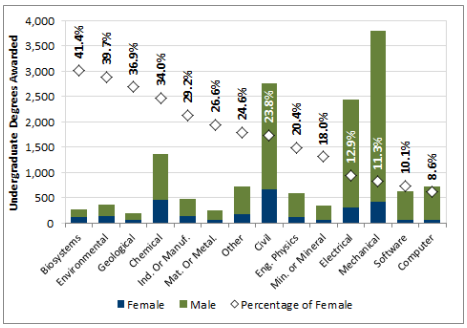


Chart 2.8 - Female undergraduate degrees awarded by discipline (2016)

Female graduate student enrolment

The proportion of female enrolment in engineering master's programs continues to grow, reaching 25.3 per cent in 2016. This is the first time that female enrolment was greater than 25 per cent.

The proportion of female enrolment in doctoral degrees has grown from 23.2 per cent in 2015 to 23.7 per cent in 2016. Although this proportion is still lower than the one achieved in 2013 (23.9 per cent), it represents the first time it has grown since then.

Charts 2.9 and 2.10 indicate the trends in the proportion of female students enrolled in post-graduate degrees from 2012 to 2016.

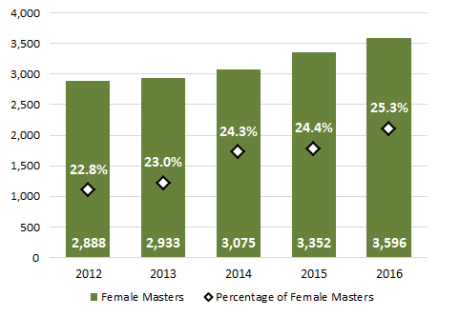


Chart 2.9 - Female enrolment in master degrees (2012-2016, full-time equivalent)

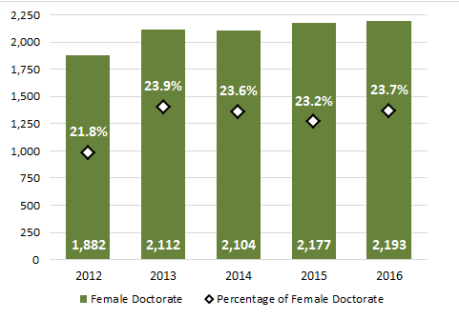


Chart 2.10 - Female enrolment in doctoral degrees (2012-2016, full-time equivalent)

Chart 2.11 indicates the proportion of female enrolment in post graduate degrees by province. The highest proportion of master's enrolment in 2016 was seen in Alberta, while the highest proportion of doctoral enrolment came from Saskatchewan.

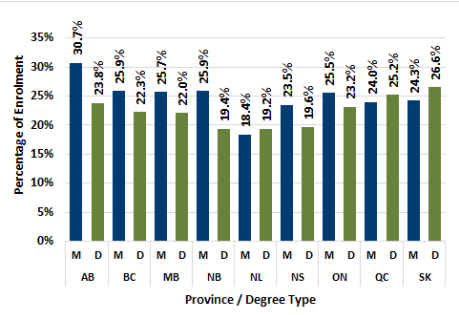


Chart 2.11 -Proportion of graduate female enrolment by province (2016, full-time equivalent)
M = Master's, D = Doctoral

Female post-graduate degrees awarded

The number of post-graduate degrees awarded to females continues to grow, reaching 1,665 master degrees and 366 doctoral degrees in 2016. This represents an increase of 8.5 per cent in the number of master's degrees

awarded and a 16.6 per cent increase in the number of doctoral degrees awarded. The proportion of master's degrees awarded to females has also grown from 24.5 per cent in 2015 to 25.5 per cent in 2016, while the proportion of doctoral degrees awarded to females went from 22.1 per cent in 2015 to 23.7 per cent in 2016.

Charts 2.12 and 2.13 indicate the number and proportion of post-graduate degrees awarded to females in the period of 2012 to 2016.

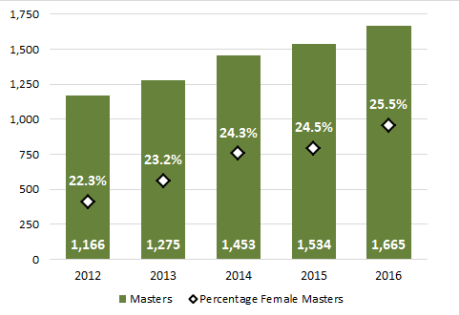


Chart 2.12 - Master degrees awarded to females (2012-2016)

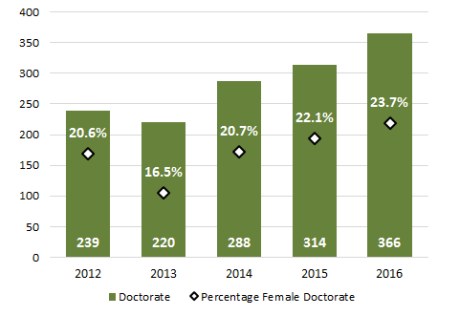


Chart 2.13 - Doctoral degrees awarded to females (2012-2016)

In 2016, the province with the largest percentage of master's degrees awarded to females was Alberta, at 34.2 per cent, while Nova Scotia had the greatest percentage of females receiving doctoral degrees, at 46.2 per cent. Conversely, New Brunswick had the smallest percentage of master's degrees awarded to females (16.7 per cent), while Manitoba displayed the smallest proportion of females who received doctoral degrees (11.5 per cent).

Chart 2.14 demonstrates the proportion of master's and doctoral degrees awarded to females by province in 2016.

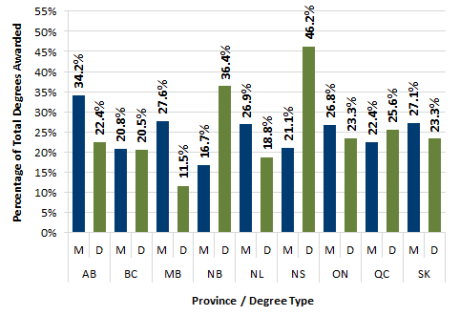
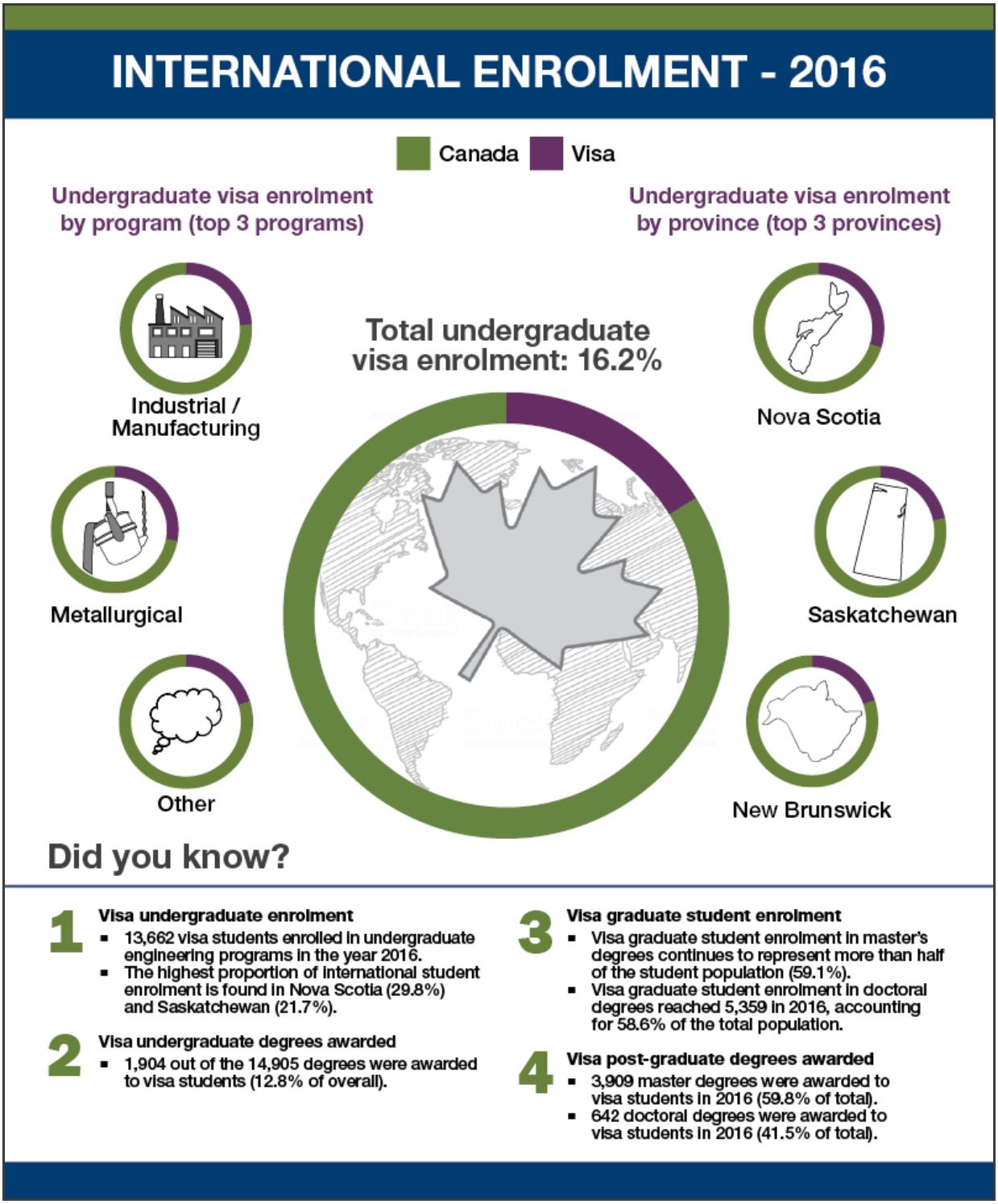


Chart 2.14 - Proportion of postgraduate degrees awarded to females by province (2016)
M = Master's, D = Doctoral

Visa student enrolment and degrees awarded



Visa undergraduate enrolment

There were 13,662 international students enrolled in undergraduate engineering programs in 2016, accounting for 16.2 per cent of total enrolment. This indicates a growth of 5.3 per cent over the previous year, when the number of international students was 12,970 and corresponded to 15.8 per cent of total undergraduate enrolment.

Chart 3.1 shows the undergraduate enrolment of visa students for the period of 2012 to 2016.

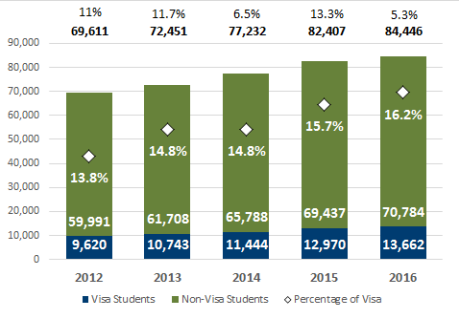


Chart 3.1 - Undergraduate enrolment of visa students (2012-2016, full-time equivalent)

The top of the chart contains the percentage growth relative to the previous year as well as the sum of values represented by each column.

Visa undergraduate enrolment by discipline

Materials/metallurgical engineering and industrial or manufacturing engineering had the highest proportion of visa students at 27.9 per cent and 24.0 per cent, respectively. Conversely, the programs that displayed the lowest proportion of visa students were biosystems engineering (10.1 per cent) and software engineering (12.0 per cent).

Chart 3.2 showcases the proportion of full-time equivalent undergraduate visa student enrollment by discipline in 2016.

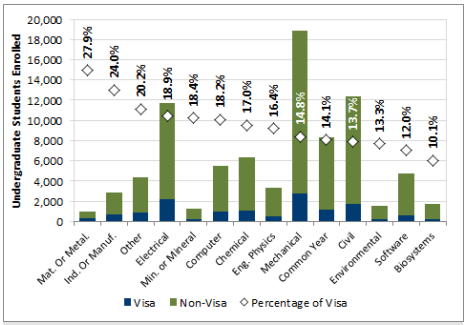


Chart 3.2 - Undergraduate enrolment of visa students by program (2016, full-time equivalent)

Visa undergraduate enrolment by province

Out of the 13,662 international students enrolled in undergraduate engineering programs in Canada in 2016, 42.8 per cent of international students (5,843) studied in Ontario and 23.9 per cent (3,265) studied in Quebec. However, Nova Scotia (674 students at 29.8 per cent) and Saskatchewan (604 students at 21.7 per cent) displayed the highest proportion of international students enrolled. The largest growth in international student enrolment over the previous year was found in Ontario (0.9 per cent) and Nova Scotia (0.8 per cent).

Chart 3.3 shows the proportion of visa enrolment and the number of visa students by province in 2016.

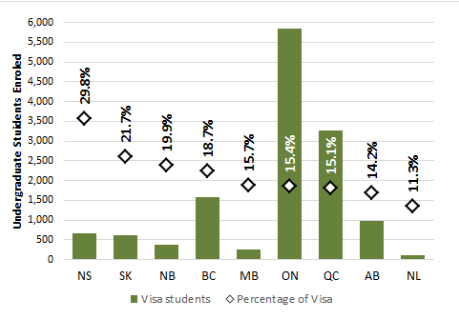


Chart 3.3 - Visa undergraduate enrolment by province (2016, full-time equivalent)

Visa undergraduate degrees awarded

In 2016, 1,904 of the 14,905 undergraduate degrees awarded were granted to visa students, representing 12.8 per cent overall. This indicates a growth of 0.3 percentage points in the number of degrees awarded to visa students from 2015.

Furthermore, a steady growth rate can be observed from 2012, when the proportion of undergraduate degrees awarded to visa students represented 10.1 per cent of the overall number.

Chart 3.4 displays the trends of degrees awarded to international students for the period of 2012 to 2016.

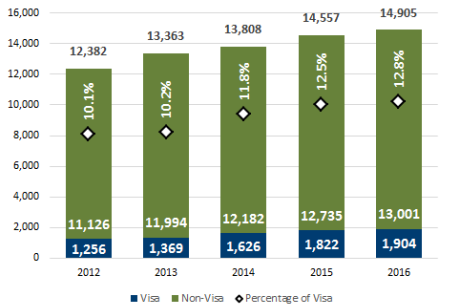


Chart 3.4 - Undergraduate degrees awarded to visa students (2012-2016, full-time equivalent)
The top of each column contains the sum of values represented by each column.

Visa graduate student enrolment

Visa student enrolment in master's degrees continues to represent more than half of the master's student population. The enrolment of international students in master's programs has been growing at a faster pace than total enrolment, reaching 7,965 students in 2016 (a 41.8 per cent increase from 2012) and representing 59.1 per cent of the master's student population in 2016. This indicates a significant growth since 2012, when visa students represented 47.8 per cent of total enrolment in master's programs.

Furthermore, visa graduate student enrolment in doctoral degrees also presents a fast rate of growth, although much slower than enrolment of visa students in master's degrees. In 2016, the number of international students enrolled in doctoral degrees reached 5,359, accounting for 58.6 per cent of total doctoral enrolment. This represented a 29.5 per cent increase from 2012, when international students accounted for 48.8 per cent of total enrolment.

Charts 3.5 and 3.6 showcase the trends in the graduate enrolment of full-time equivalent visa students from 2012 to 2016.

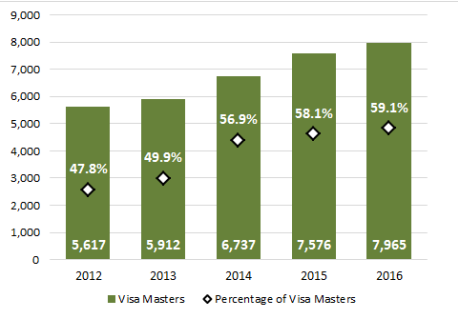


Chart 3.5 - International student enrolment in master degrees (2012-2016, full-time equivalent)

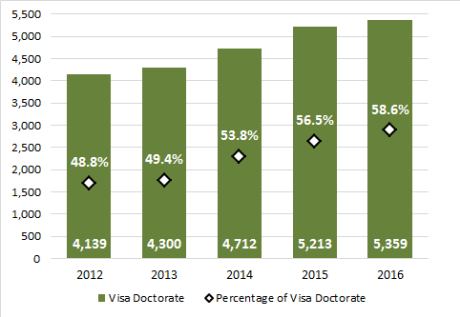


Chart 3.6 - International student enrolment in doctoral degrees (2012-2016, full-time equivalent)

Newfoundland and Labrador had the highest proportion of visa students enrolled in master's programs in 2016, at 82.7 per cent of total master's enrolment. On the other hand, New Brunswick displayed the lowest proportion of visa student enrolment in master's programs at 35.3 per cent.

Meanwhile, Alberta had the largest proportion of visa students enrolled in doctoral programs, where they accounted for 70.4 percent of total enrolment. Nova Scotia had the lowest proportion of visa student enrolment in doctoral programs at 46.6 per cent.

Chart 3.7 shows the fraction of full-time equivalent graduate enrolment of visa students by province in 2016.

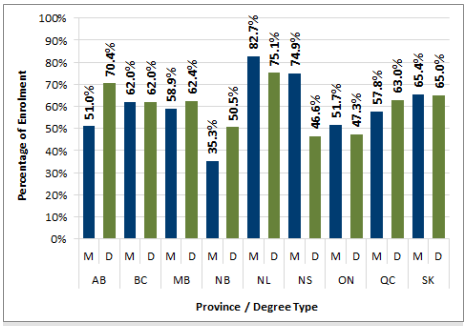


Chart 3.7 - Proportion of visa students enrolled in postgraduate programs by province (2016, full-time equivalent)
M = Master's, D = Doctoral

Visa post-graduate degrees awarded

The number of master's degrees awarded to visa students continues to grow, totalling 3,909 degrees in 2016. This represented an increase of 13.7 per cent over the previous year and 73.2 per cent from 2012. Similarly, the number of doctoral degrees awarded to visa students has grown by 18.0 per cent since 2015 and 130.1 per cent since 2012, totalling 642 degrees in 2016.

The overall proportion of post-graduate degrees awarded to visa students has grown to 59.8 per cent of all master's degrees and 41.5 per cent of all doctoral degrees in 2016. This represents a large growth from 2012, when the proportion of master's degrees was 43.2 per cent and that of doctoral degrees was 24.0 per cent.

Chart 3.8 and Chart 3.9 display the trends in post-graduate degrees awarded to visa students in the period from 2012 to 2016.

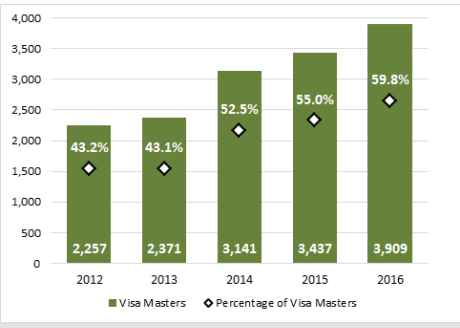


Chart 3.8 - Master degrees awarded to visa students (2012-2016)

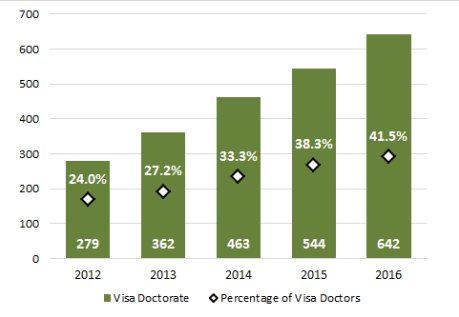


Chart 3.9 - Doctoral degrees awarded to visa students (2012-2016)

In 2016, Newfoundland and Labrador, Saskatchewan, and Nova Scotia had the greatest proportion of master's degrees awarded to visa students (83.6 per cent, 77.1 per cent, and 72.2 per cent, respectively).

New Brunswick, British Columbia, and Quebec awarded the greatest proportion of their doctoral degrees to visa students, where they accounted for 54.5 per cent, 49.6 per cent, and 48.9 per cent, respectively.

Chart 3.10 displays the proportion of post-graduate degrees awarded to visa students by province in 2016.

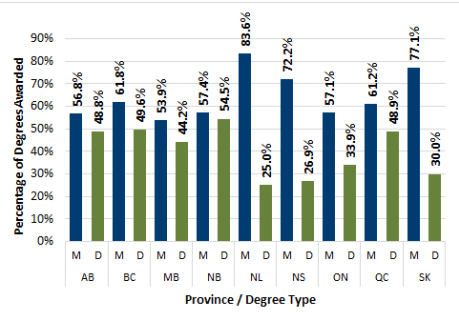


Chart 3.10 - Post-graduate degrees awarded to visa students by province (2016)

Indigenous peoples’ enrolment and degrees awarded

Out of the 31 post-secondary institutions that responded to this survey about Indigenous peoples, only 25 institutions were able to provide information on Indigenous peoples’ undergraduate enrolment, and only 23 were able to provide information on undergraduate degrees awarded. These 25 institutions represent 56.9 per cent of undergraduate students enrolled in engineering programs, while the 23 post-secondary institutions represent 42.9 per cent of undergraduate degrees awarded. Furthermore, only 18 institutions were able to present data on post-graduate enrolment, with 17 of them presenting data on post-graduate degrees awarded. These 18 institutions represent 47.4 per cent of post-graduate students in Canada, whereas the 17 post-secondary institutions represent 20.6 per cent of post-graduate degrees awarded. As the reported numbers are of small magnitude, the data on Indigenous student enrolment is presented in a cumulative form to assure anonymity. While not all institutions are able to report the Indigenous identity of their students, Engineers Canada believes this data allows the engineering community to pursue conversations on increasing the representation of Indigenous peoples in engineering. Even if we cannot currently achieve a comprehensive and true representation of Indigenous peoples’ enrolment and degrees awarded, this provides us an important starting point.

While Indigenous peoples make up more than 4.9 per cent of the Canadian Population (Statistics Canada 2017), they only account for 1.2 per cent of total undergraduate enrolment and only 1.2 per cent of undergraduate degrees were presented to Indigenous peoples. Graduate student enrolment demonstrated lower enrolment of Indigenous peoples, at 0.4 per cent of total enrolment, while graduate degrees awarded represented 0.7 per cent of surveyed universities.

Chart 4.1 indicates the percentage of enrolment and degrees awarded to indigenous peoples, as well as the number of Indigenous students and total students considered for the calculations.

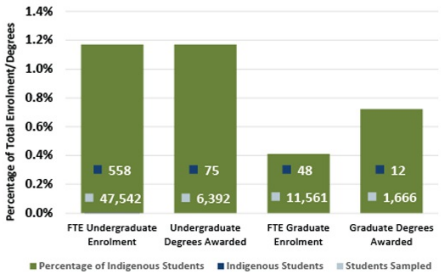


Chart 4.1 - Indigenous peoples enrolment and degrees awarded (2016)

Faculty members

There were a total of 4,381 full-time equivalent faculty members in 2016, with 14.9 per cent of these being women.

While the number of professors has grown significantly in the past five years, going from 1,783 in 2012 to 1,991 in 2016 (11.7 per cent increase), the number of associate professors decreased from 1,215 to 1,141 (6.1 per cent decrease). Furthermore, the number of assistant professors, instructors and lecturers has remained relatively constant for the past five years.

Chart 5.1 indicates the trends on the number of faculty members by position in the period of 2012 to 2016.

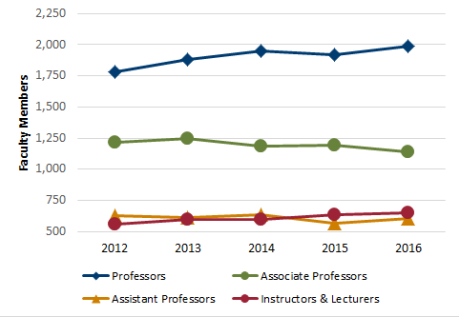


Chart 5.1 - Faculty members by position (2012-2016)

The percentage of female faculty members has increased from 13.4 per cent in 2012 and 14.6 per cent in 2015 to 14.9 per cent in 2016. The faculty position with the highest percentage of females was that of assistant professor (22.8 per cent), whereas the position with the lowest percentage was that of professor (10.1 per cent).

Chart 5.2 shows the number of faculty members in 2016 by position and gender, while Chart 5.3 indicates the percentage of female faculty members for the period of 2006 to 2016.

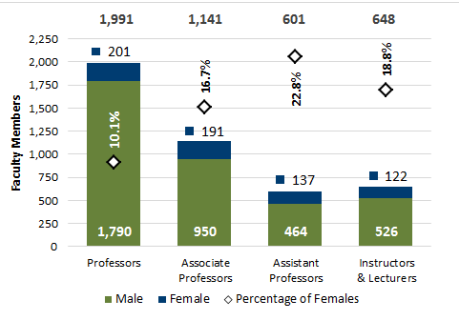


Chart 5.2 - Faculty members by gender and position (2016, full-time equivalent)

The top of the chart contains the sum of values represented by each column.

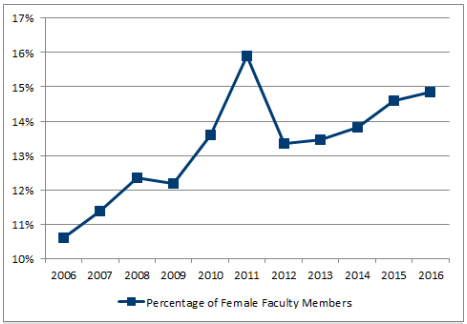


Chart 5.3 - Female proportion of faculty members (2006-2016, full-time equivalent)

As the number of female faculty members remains a small proportion of all faculties, Engineers Canada advises readers to use caution when drawing conclusions from the year-to-year variation. Small inaccuracies in the

reported data as well as changes in programming will affect the percentage presented in Chart 5.3

Appendix A

Data tabulations – engineering enrolment and degrees awarded

Data found in the following tables can also be downloaded in Excel format.

Undergraduate Enrolment (U)

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

Undergraduate Degrees Awarded (UD)

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

Post-graduate Student Enrolment (G)

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

Post-graduate Degrees Awarded (GD)

- »U.1. National
- »U.2. Provincial
- »U.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.

Name of the school and the abbreviated name

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 name of the school and the abbreviated name that is used.

Complete School Name	Abbreviation
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
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

Undergraduate Enrolment (U)

U.1.1 Total undergraduate enrolment in accredited engineering programs by discipline: 2012 to 2016

Discipline	2012	2013	2014	2015	2016
Biosystems	1,023	1,080	1,402	1,558	1,708
Chemical	5,517	5,825	6,076	6,323	6,341
Civil	11,681	11,957	11,974	12,595	12,379
Computer	3,520	3,873	4,105	4,838	5,473
Electrical	10,462	10,584	11,464	11,844	11,706
Engineering Physics	2,894	3,081	3,222	2,865	3,303
Environmental	1,440	1,440	1,444	1,462	1,501
Geological	667	730	761	779	746
Industrial or Manufacturing	1,857	1,959	2,502	2,648	2,812
Materials or Metallurgical	805	886	793	1,004	951
Mechanical	14,489	15,368	17,091	18,691	18,890
Mining or Mineral	1,046	1,304	1,431	1,416	1,249
Software	2,573	2,974	3,616	4,114	4,708
Other	3,711	3,747	4,293	4,412	4,390
Year One/Two Common Year	7,926	7,642	7,059	7,857	8,289
TOTAL	69,611	72,451	77,232	82,407	84,446

U.1.2 Total female undergraduate enrolment in accredited engineering programs: 1991 to 2016

Year	Total Enrolment	Women	Percent of total
1991	36,923	5,947	16.1
1992	40,068	6,659	16.6
1993	41,329	7,348	17.8
1994	40,709	7,436	18.3
1995	39,800	7,505	18.9
1996	40,667	7,659	18.8
1997	41,675	8,006	19.2
1998	43,487	8,391	19.3
1999	44,390	9,103	20.5
2000	46,610	9,460	20.3
2001	48,929	10,089	20.6
2002	52,024	10,350	19.9
2003	53,718	10,317	19.2
2004	54,361	9,901	18.2
2005	53,901	9,435	17.5
2006	52,484	9,235	17.6

2007	55,190	9,561	17.3
2008	56,596	9,695	17.1
2009	57,970	10,062	17.4
2010	61,505	10,915	17.7
2011	65,468	11,563	17.7
2012	69,611	12,626	18.1
2013	72,451	13,686	18.9
2014	77,232	14,691	19
2015	82,407	16,416	19.9
2016	84,446	17,481	20.7

U.1.3 Total female undergraduate enrolment in accredited engineering programs: 2012 to 2016

Discipline	2012	2013	2014	2015	2016
Biosystems	439	450	603	700	812
Chemical	1,826	1,920	2,067	2,246	2,323
Civil	2,556	2,718	2,755	3,024	3,103
Computer	355	416	478	586	750
Electrical	1,297	1,372	1,479	1,582	1,671
Engineering Physics	497	555	597	590	676
Environmental	565	571	597	594	614
Geological	245	268	280	288	275
Industrial or Manufacturing	441	489	675	760	834
Materials or Metallurgical	188	219	206	272	290
Mechanical	1,502	1,672	1,882	2,268	2,428
Mining or Mineral	186	191	226	215	187
Software	253	330	413	511	621
Other	674	751	873	937	947
Year One/Two Common Year	1,600	1,764	1,561	1,845	1,950
TOTAL	12,626	13,686	14,691	16,416	17,481

U.1.4 Table U.1.4 - Total 2016 undergraduate enrolment in engineering programs, which will be seeking accreditation

Institution	Program	2016
BCIT	Mineral and Mining Exploration Engineering	116
Calgary	Energy Engineering	81
Concordia	Aerospace Engineering	71
Laurentian	Civil Engineering	14
McGill	Bioengineering	14
UOIT	Energy Systems Engineering	34
UQO	Génie électrique	43
UVic	Biomedical Engineering	79
UVic	Civil Engineering	161
Waterloo	Biomedical Engineering	100
York	Civil Engineering	132
York	Mechanical Engineering	140
York	Software Engineering	57
York	Undeclared Major Engineering	216
TOTAL		1,257

U.2.1 Total undergraduate enrolment in accredited engineering programs by province: 2012 to 2016

Province	2012	2013	2014	2015	2016
AB	7,154	7,334	5,818	7,317	6,839
BC	8,168	6,935	8,082	8,063	8,440
MB	1,255	1,412	1,483	1,521	1,565
NB	2,141	2,025	1,886	1,836	1,863
NL	859	937	989	1,030	1,046
NS	1,863	2,049	2,137	2,093	2,261
ON	28,904	30,316	34,141	36,376	37,993
PE	111	126	120	128	
QC	17,031	18,744	19,993	21,266	21,654
SK	2,126	2,574	2,584	2,778	2,785
TOTAL	69,611	72,451	77,232	82,407	84,446

U.2.2 Total female undergraduate enrolment in accredited engineering programs by province: 2016

Province	Total Enrolment	Female Enrolment	Percent Female Enrolment
AB	6,839	1,571	23.00%
BC	8,440	1,666	19.70%
MB	1,565	297	19.00%
NB	1,863	388	20.80%
NL	1,046	282	26.90%
NS	2,261	478	21.10%
ON	37,993	8,054	21.20%
PE			
QC	21,654	4,230	19.50%
SK	2,785	517	18.60%
TOTAL	84,446	17,481	20.70%

U.2.3 Total undergraduate foreign student enrolment in accredited engineering programs by province: 2012 to 2016

Province	2012	2013	2014	2015	2016
AB	738	795	644	929	968
BC	1,014	1,018	1,226	1,407	1,576
MB	185	245	276	258	245
NB	659	674	451	465	370
NL	86	95	102	109	118
NS	440	479	513	536	674
ON	3,778	4,201	4,846	5,460	5,843
PE	12	20	30	30	
QC	2,304	2,643	2,778	3,118	3,265
SK	405	573	577	659	604
TOTAL	9,620	10,743	11,444	12,970	13,662

Table U.2.4 - Total undergraduate enrolment in accredited engineering programs by discipline and province: 2016

Discipline	AB	BC	MB	NB	NL	NS	ON	PE	QC	SK	Total
Biosystems		95	128				1,204		281		1,708
Chemical	863	244		265		116	3,513		1,138	203	6,341
Civil	948	718	269	442	172	147	4,800		4,673	210	12,379
Computer	225	411	118	23	57		3,270		1,151	217	5,473
Electrical	838	1,171	308	270	80	164	5,323		3,450	104	11,706
Engineering Physics	61	982				258	1,532		425	46	3,303
Environmental		164				69	908		83	276	1,501
Geological		131		51			236		257	71	746
Industrial or Manufacturing						112	835		1,476	389	2,812
Materials or Metallurgical	126	155				34	359		277		951
Mechanical	1,486	1,636	464	420	250	177	8,850		5,358	249	18,890
Mining or Mineral	163	157				75	396		458		1,249
Software	129	187		161			1,886		2,216	130	4,708
Other	353	167		94	181	824	1,935		412	424	4,390
Year One/Two Common Year	1,649	2,221	279	138	306	284	2,946			466	8,289
TOTAL	6,839	8,440	1,565	1,863	1,046	2,261	37,993		21,654	2,785	84,446

U.2.5 Total female undergraduate enrolment in accredited engineering programs by discipline and province: 2016

Discipline	AB	BC	MB	NB	NL	NS	ON	PE	QC	SK	Total
Biosystems		37	54				583		139		812
Chemical	279	85		97		42	1,232		519	68	2,323
Civil	320	165	61	100	51	39	1,204		1,111	53	3,103
Computer	31	72	17	18	9		456		129	18	750
Electrical	145	176	44	35	10	20	786		446	9	1,671
Engineering Physics	10	182				42	364		72	5	676
Environmental		72				28	372		38	104	614
Geological		48		18			92		101	16	275
Industrial or Manufacturing						32	269		482	52	834
Materials or Metallurgical	35	44				6	114		91		290
Mechanical	237	218	57	55	43	23	1,097		676	23	2,428
Mining or Mineral	17	25				9	72		65		187
Software	18	21		11			272		282	16	621
Other	84	36		21	72	172	419		79	65	947
Year One/Two Common Year	395	484	65	32	97	67	722			89	1,950
TOTAL	1,571	1,666	297	388	282	478	8,054		4,230	517	17,481

U.3.1 Total undergraduate enrolment in accredited engineering programs by institution: 2011 to 2016.

Institution	2012	2013	2014	2015	2016
Acadia	207	171	153	153	169
Alberta	4,021	4,145	3,277	4,222	4,207
BCIT	469	486	784	882	379
Calgary	3,133	3,189	2,541	3,095	2,632
Cape Breton	118	83	54	41	88
Carleton	3,186	3,228	3,511	4,022	4,281
Concordia	2,610	3,090	3,228	3,463	3,655
Conestoga	80	98	161	176	195
Dal	1,208	1,343	1,508	1,588	1,719
ETS	3,921	4,382	5,762	5,201	5,216
Guelph	530	942	1,320	1,392	1,612
Lakehead	806	798	849	1,006	1,087
Laurentian	279	382	544	481	498
Laval	1,841	1,987	1,135	2,443	2,411
Manitoba	1,255	1,412	1,483	1,521	1,565
McGill	2,321	2,734	2,847	2,884	2,924
McMaster	2,338	2,737	3,330	3,473	3,601
Moncton	367	358	343	422	348
MUN	859	937	989	1,030	1,046
NSAC	31	65	72	19	28
Ottawa	2,030	2,340	2,661	3,009	3,130
Polytechnique	4,197	4,305	4,704	4,896	5,048
Queen's	2,734	2,745	2,811	2,974	3,066
Regina	876	1,157	1,166	1,389	1,406
RMC	440	513	418	416	379
Ryerson	3,036	3,193	3,632	3,913	4,071
Saskatchewan	1,251	1,418	1,417	1,390	1,378
SFU	990	1,120	1,245	1,215	1,162
Sherbrooke	1,248	1,339	1,358	1,459	1,469
SMU	214	297	281	214	258
StFX	85	90	70	79	
Toronto	4,488	4,560	4,672	4,745	4,681
UBC	3,873	3,699	3,501	3,537	3,821
UBCO	1,650	262	1,092	806	1,390
UNB	1,774	1,667	1,543	1,414	1,515
UNBC	89	84	85	89	102
UOIT	1,370	763	1,633	1,787	1,879
UPEI	111	126	120	128	
UQAC	365	358	370	387	374
UQAM	42	42	47		
UQAR	81	89	88	114	91
UQAT	55	62	63	63	87
UQO	35	30	29	28	39
UQTR	314	327	362	329	342
UVic	1,098	1,284	1,374	1,534	1,586
Waterloo	5,047	5,182	5,315	5,456	5,545

Western	1,260	1,321	1,582	1,695	2,020
Windsor	1,064	1,245	1,468	1,540	1,591
York	218	269	236	292	358
TOTAL	69,611	72,451	77,232	82,407	84,446

U.3.2 Total female undergraduate enrolment in accredited engineering programs by institution: 2012 to 2016

Institution	2012	2013	2014	2015	2016
Acadia	27	38	31	37	44
Alberta	800	827	658	893	894
BCIT	39	42	59	62	42
Calgary	747	773	645	791	677
Cape Breton	16	18	10	4	18
Carleton	446	450	504	669	712
Concordia	490	606	645	705	767
Conestoga	5	5	10	8	7
Dal	229	262	291	321	369
ETS	353	385	507	458	471
Guelph	167	228	362	388	464
Lakehead	77	88	88	130	126
Laurentian	41	52	84	81	84
Laval	336	361	242	473	449
Manitoba	217	250	275	277	297
McGill	513	633	675	708	752
McMaster	418	514	587	686	726
Moncton	63	65	65	63	74
MUN	188	243	241	269	282
NSAC	5	9	17	1	5
Ottawa	409	445	527	595	622
Polytechnique	914	992	1,168	1,269	1,411
Queen's	741	775	815	882	918
Regina	168	266	249	251	234
RMC	60	71	51	48	34
Ryerson	522	539	638	738	782
Saskatchewan	243	279	277	272	283
SFU	133	155	187	197	185
Sherbrooke	190	213	207	214	221
SMU	25	42	42	32	42
StFX	20	26	22	27	
Toronto	1,068	1,116	1,198	1,282	1,370
UBC	760	783	787	863	974
UBCO	205	32	148	124	207
UNB	278	255	277	244	314
UNBC	43	38	32	35	43
UOIT	100	66	111	144	171
UPEI	12	18	10	14	
UQAC	45	53	58	64	71
UQAM	3	3	4		
UQAR	15	13	8	6	5
UQAT	12	13	12	9	11
UQO	4	3	5	7	11
UQTR	43	50	69	62	60
UVic	98	133	151	188	215
Waterloo	915	975	1,058	1,188	1,301

Western	242	261	312	343	422
Windsor	145	178	236	242	253
York	38	47	40	55	64
TOTAL	12,626	13,686	14,691	16,416	17,481

Table U.3.3 Total undergraduate enrolment in accredited engineering programs by institution and discipline: 2016

Institution	Biosystems	Chemical	Civil	Computer	Electrical	Engineering Physics	Environmental	Geological	Industrial or Manufacturing	Materials or Metallurgical	Mechanical	Mining or Mineral	Software	Year One/Two Common Year
Acadia														169
Alberta		533	678	225	456	61				126	954	163		837
BCIT			123		112						144			
Calgary		330	270		382						532		129	812
Cape Breton														88
Carleton	170		843	340	981	129	333				603		350	
Concordia			982	220	418				340		1,090		605	
Conestoga				62							133			
Dal		116	147		164		69		112	34	177	75		
ETS			1543		1,321				394		1,299		658	
Guelph	411			228			344				583			46
Lakehead		124	415		182						323		43	
Laurentian		141									175	158		25
Laval	126	112	438	115	182	157	83	95	148	53	490	144	165	
Manitoba	128		269	118	308						464			279
McGill		381	383	176	564					224	752	128	274	
McMaster		364	379	176	463	127				169	607		320	995
Moncton			173		78						97			
MUN			172	57	80						250			306
NSAC														28
Ottawa	285	424	625	343	534						668		251	
Polytechnique	155	401	909	320	454	268		123	474		1,006	186	514	
Queen's		345	319	221	195	426		144			541	138		738
Regina				155			232		389				130	76
RMC		37	59	45	31						46			161
Ryerson	337	395	710	353	697				251		755			108
Saskatchewan		203	210	61	104	46	45	71			249			389
SFU						744					418			
Sherbrooke		238	274	252	285						420			
SMU						258								
Toronto		530	438	529	713	850			394	190	725	100		213
UBC	95	244	451	355	536	238	62	131		155	418	157		812
UBCO			144		94						200			952
UNB		265	269	23	192			51			323		161	138
UNBC							102							
UOIT					393				50		950		231	
UQAC			143	30	72			39			91			
UQAR					20						43			

UQAT					44						43			
UQO				39										
UQTR		6			91				119		126			
UVic				56	430						456		187	457
Waterloo		921	505	799	526		190	93			1,447		487	
Western		234	243	63	171						447		204	597
Windsor			264		319		41		139		764			64
York				113	118						84			
TOTAL	1,708	6,341	12,379	5,473	11,706	3,303	1,501	746	2,812	951	18,890	1,249	4,708	8,289

Table U 3.4 Total female undergraduate enrolment in accredited engineering programs by institution and discipline: 2016

Institution	Biosystems	Chemical	Civil	Computer	Electrical	Engineering Physics	Environmental	Geological	Industrial or Manufacturing	Materials or Metallurgical	Mechanical	Mining or Mineral	Software	Year One/Two Common Year	
Acadia														44	
Alberta		168	212	31	75	10				35	131	17		182	33
BCIT			24		10						8				
Calgary		111	108		70						106		18	213	51
Cape Breton														18	
Carleton	64		205	32	139	18	94				49		42		69
Concordia			259	23	70				143		159		113		
Conestoga				3							5				
Dal		42	39		20		28		32	6	23	9			172
ETS			221		124				28		66		32		
Guelph	217			31			147				59			10	
Lakehead		35	60		13						14		5		
Laurentian		38									21	23		3	
Laval	56	37	81	7	17	20	38	32	49	11	46	17	19		19
Manitoba	54		61	17	44						57			65	
McGill		165	140	25	118					80	140	20	47		17
McMaster		128	88	21	94	14				43	77		44	218	
Moncton			43		17						14				
MUN			51	9	10						43			97	72
NSAC														5	
Ottawa	143	140	123	46	61						67		43		
Polytechnique	83	229	312	49	77	52		54	223		193	28	71		41
Queen's		151	131	34	42	113		66			134	26		222	
Regina				13			83		52				16	5	65
RMC		10	2	3	1						6			12	
Ryerson	159	119	146	45	78				75		65			29	66
Saskatchewan		68	53	4	9	5	21	16			23			84	
SFU						142					42				
Sherbrooke		88	62	11	16						44				
SMU						42									
Toronto		226	157	114	146	220			163	71	162	23		89	
UBC	37	85	116	70	107	40	29	48		44	96	25		241	36
UBCO			25		12						21			149	
UNB		97	57	18	18			18			41		11	32	21
UNBC							43								
UOIT					39				5		67		24		36
UQAC			36	3	6			15			11				
UQAR					2						2				2

UQAT					6						5				
UQO				11											
UQTR					10				39		11				
UVic				2	47						51		21	93	
Waterloo		298	168	100	87		111	27			211		82		219
Western		90	65	6	29						57		33	124	20
Windsor			60		43		20		26		88			16	
York				23	17						15				10
TOTAL	812	2,323	3,103	750	1,671	676	614	275	834	290	2,428	187	621	1,950	947

Undergraduate Degrees Awarded (UD)

Table UD.1.1 Total undergraduate degrees awarded by discipline: 2012 to 2016

Discipline	2012	2013	2014	2015	2016
Biosystems	152	194	211	235	278
Chemical	1,278	1,307	1,292	1,297	1,370
Civil	2,325	2,751	2,688	2,772	2,757
Computer	630	686	573	713	713
Electrical	2,055	2,137	2,202	2,375	2,435
Engineering Physics	515	548	532	599	588
Environmental	258	300	360	337	363
Geological	121	164	152	192	187
Industrial or Manufacturing	369	361	440	527	472
Materials or Metallurgical	207	216	213	235	248
Mechanical	3,153	3,255	3,338	3,634	3,791
Mining or Mineral	237	220	280	307	345
Software	413	434	547	632	634
Other	669	790	908	702	724
TOTAL	12,382	13,363	13,808	14,557	14,905

Table UD.1.2 Total undergraduate degrees awarded to female students by discipline: 2012 to 2016

Discipline	2012	2013	2014	2015	2016
Biosystems	76	87	101	97	115
Chemical	444	427	402	442	466
Civil	500	605	597	644	657
Computer	69	71	59	67	61
Electrical	259	283	330	335	314
Engineering Physics	76	92	93	115	120
Environmental	116	121	147	138	144
Geological	44	58	57	71	69
Industrial or Manufacturing	94	73	125	139	138
Materials or Metallurgical	58	43	53	51	66
Mechanical	324	344	357	391	428
Mining or Mineral	35	38	44	64	62
Software	39	43	57	57	64
Other	101	162	182	129	178
TOTAL	2,235	2,447	2,621	2,740	2,882

Table UD.2.1 Total undergraduate degrees awarded by province: 2012 to 2016

Province	2012	2013	2014	2015	2016
AB	1,246	1,282	1,346	1,373	1,408
BC	1,161	1,278	1,324	1,519	1,470
MB	172	188	219	218	255
NB	270	320	308	307	340
NL	166	270	194	196	197
NS	397	477	654	318	346
ON	5,508	5,927	5,996	6,465	6,693
PE					
QC	3,043	3,202	3,370	3,676	3,771
SK	419	419	397	485	425
TOTAL	12,382	13,363	13,808	14,557	14,905

Table UD.2.2 Total undergraduate degrees awarded to female students by province: 2012 to 2016

Province	2012	2013	2014	2015	2016
AB	259	290	277	319	299
BC	184	172	210	265	253
MB	22	29	52	42	47
NB	51	45	65	53	55
NL	28	77	44	42	34
NS	80	101	142	63	57
ON	1,021	1,123	1,155	1,215	1,354
PE					
QC	496	518	593	656	698
SK	94	92	83	85	85
TOTAL	2,235	2,447	2,621	2,740	2,882

Table UD.2.3 Total undergraduate degrees awarded to foreign students by province: 2012 to 2016.

Province	2012	2013	2014	2015	2016
AB	95	107	122	114	171
BC	110	109	140	197	193
MB	20	14	34	44	41
NB	45	57	70	71	69
NL	4	16	30	22	21
NS	44	65	103	53	63
ON	577	585	640	816	833
PE					
QC	327	353	424	421	441
SK	34	63	63	84	72
TOTAL	1,256	1,369	1,626	1,822	1,904

Table UD.2.4 Total undergraduate degrees awarded by province and discipline: 2016

Discipline	AB	BC	MB	NB	NL	NS	ON	PE	QC	SK
Biosystems		27	26				168		56	1
Chemical	231	38		51		40	729		207	74

Civil	219	206	54	111	47	56	1,050		963	51
Computer	38	103	23	13	15		345		145	31
Electrical	272	277	55	41	21	66	1,111		569	23
Engineering Physics	13	193					321		55	6
Environmental		65				21	204		16	57
Geological		38		23			57		53	16
Industrial or Manufacturing						28	163		250	31
Materials or Metallurgical	54	33				9	102		50	
Mechanical	375	387	97	76	74	75	1,685		956	66
Mining or Mineral	42	53				51	122		77	
Software	30	18		8			272		294	12
Other	134	32		17	40		364		80	57
TOTAL	1,408	1,470	255	340	197	346	6,693		3,771	425

Table UD.2.5 Total undergraduate degrees awarded to women by province and discipline: 2016

Discipline	AB	BC	MB	NB	NL	NS	ON	PE	QC	SK
Biosystems		8	12				72		23	
Chemical	67	16		13		16	241		91	22
Civil	67	31	13	19	9	11	261		228	18
Computer	4	10	1		1		31		13	1
Electrical	41	40	9	5	3	6	153		57	
Engineering Physics	2	30					79		8	1
Environmental		34				7	73		7	23
Geological		11		6			27		22	3
Industrial or Manufacturing						6	53		74	5
Materials or Metallurgical	13	6				2	34		11	
Mechanical	58	50	12	7	10	5	182		99	5
Mining or Mineral	6	7				4	31		14	
Software	2			1			31		30	
Other	39	10		4	11		86		21	7
TOTAL	299	253	47	55	34	57	1,354		698	85

Table UD.3.1 Total undergraduate degrees awarded by institution: 2012 to 2016

Institution	2012	2013	2014	2015	2016
Acadia			0		
Alberta	805	760	737	792	810
BCIT	41	52	54	71	73
Calgary	441	522	609	581	598
Carleton	401	427	453	530	568
Concordia	402	462	458	491	472
Conestoga	11	11	30	26	30
Dal	397	477	582	318	346
ETS	681	828	788	898	948
Guelph	87	104	220	212	279
Lakehead	282	302	283	298	312
Laurentian	132	249	83	78	110

Laval	327	300	300	441	502
Manitoba	172	188	219	218	255
McGill	513	487	546	574	565
McMaster	583	590	588	653	644
Moncton	45	67	71	49	45
MUN	166	270	194	196	197
NSAC			72	0	0
Ottawa	254	286	363	374	347
Polytechnique	659	686	790	780	797
Queen's	620	641	594	595	576
Regina	128	123	158	160	153
RMC	72	93	0	89	0
Ryerson	442	514	557	567	733
Saskatchewan	291	296	239	325	272
SFU	112	142	157	189	220
Sherbrooke	291	279	276	286	299
SMU			0		0
Toronto	962	960	938	1,035	1,048
UBC	716	764	758	889	769
UBCO	118	142	145	151	157
UNB	225	253	237	258	295
UNBC	14	14	25	28	32
UOIT	196	228	239	262	289
UQAC	42	65	71	72	71
UQAM	9	9	6		
UQAR	14	16	16	16	14
UQAT	11	7	10	14	10
UQO	35	7	5	5	5
UQTR	59	56	104	99	88
UVic	160	164	185	191	219
Waterloo	990	1,082	1,113	1,194	1,136
Western	232	249	291	305	317
Windsor	222	191	221	218	283
York	22		23	29	21
TOTAL	12,382	13,363	13,808	14,557	14,905

Table UD.3.2 Total undergraduate degrees awarded to female students by institution: 2012 to 2016

Institution	2012	2013	2014	2015	2016
Acadia			0		
Alberta	150	159	141	176	162
BCIT	1	1	1	2	5
Calgary	109	131	136	143	137
Carleton	69	74	74	94	102
Concordia	63	88	96	92	100
Conestoga	1	1	5	1	1
Dal	80	101	125	63	57
ETS	54	90	65	83	79
Guelph	35	30	58	49	70

Lakehead	20	28	30	31	32
Laurentian	27	33	16	8	22
Laval	61	49	49	90	94
Manitoba	22	29	52	42	47
McGill	112	75	134	127	129
McMaster	100	104	111	101	111
Moncton	8	8	20	10	3
MUN	28	77	44	42	34
NSAC			17	0	0
Ottawa	40	57	70	82	72
Polytechnique	157	148	168	175	201
Queen's	154	170	159	170	184
Regina	29	23	36	22	25
RMC	4	11	0	9	0
Ryerson	80	92	112	112	127
Saskatchewan	65	69	47	63	60
SFU	13	12	21	37	37
Sherbrooke	35	46	40	46	44
SMU			0		0
Toronto	227	207	237	236	275
UBC	135	128	141	185	156
UBCO	13	11	20	21	15
UNB	43	37	45	43	52
UNBC	7	8	10	10	17
UOIT	21	21	17	16	17
UQAC	6	8	10	5	14
UQAM	0	0	0		
UQAR	1	0	3	2	4
UQAT	1	2	1	3	5
UQO	4	2	0	0	0
UQTR	2	10	27	33	28
UVic	15	12	17	10	23
Waterloo	156	218	189	201	211
Western	49	48	48	64	73
Windsor	33	29	26	38	52
York	5		3	3	5
TOTAL	2,235	2,447	2,621	2,740	2,882

Table UD.3.3 Total undergraduate degrees awarded by institution & discipline: 2016

Institution	Biosystems	Chemical	Civil	Computer	Electrical	Engineering Physics	Environmental	Geological	Industrial or Manufacturing	Materials or Metallurgical	Mechanical	Mining or Mineral	Software	Other
Alberta		142	139	38	119	13				54	202	42		61
BCIT			23		18						32			
Calgary		89	80		153						173		30	73
Carleton	14		134	34	130	5	61				86		25	79
Concordia			161	21	46				44		149		51	
Conestoga				5							25			
Dal		40	56		66		21		28	9	75	51		
ETS			324		213				67		243		101	
Guelph	63,6			19			95				101			
Lakehead		32	113		70						85		12	
Laurentian		32									43	35		
Laval	17	19	128	17	44	18	16	25	27	16	94	28	29	24
Manitoba	26		54	23	55						97			
McGill		80	86	28	101					34	160	28	48	
McMaster		90	101	37	126	30				61	146		53	
Moncton			21		9						15			
MUN			47	15	21						74			40
NSAC														
Ottawa	27	68	104	13	40						64		31	
Polytechnique	39	61	164	41	59	37		21	72		170	21	65	47
Queen's		65	99	28	51	85		47			141	60		
Regina				16			37		31				12	57
RMC														
Ryerson	63	57	140	63	131				38		162			79
Saskatchewan	1	74	51	15	23	6	20	16			66			
SFU						138					82			
Sherbrooke		40	73	28	64						94			
SMU														
Toronto		119	105		284	201			85	41	186	27		
UBC	16	38	125	94	137	55	33	38		33	115	53		32
UBCO			58		24						75			
UNB		51	90	13	32			23			61		8	17
UNBC							32							
UOIT					71				5		133		25	55
UQAC			27	5	13			7			19			
UQAR					4						6			4
UQAT					3						2			5
UQO				5										

UQTR		7			22				40		19			
UVic	11			9	98						83		18	
Waterloo		213	116	130	117		35	10			310		78	127
Western		53	73	6	35						82		47	21
Windsor			65		56		13		35		114			
York				10							7		1	3
TOTAL	277.6	1,370	2,757	713	2,435	588	363	187	472	248	3,791	345	634	724

Table UD.3.4 Total undergraduate degrees awarded to women by institution and discipline: 2016.

Institution	Biosystems	Chemical	Civil	Computer	Electrical	Engineering Physics	Environmental	Geological	Industrial or Manufacturing	Materials or Metallurgical	Mechanical	Mining or Mineral	Software	Other
Alberta		**41**	**44**	**4**	**13**	**2**				**13**	**27**	**6**		**12**
BCIT			3		1						1			
Calgary		26	23		28						31		2	27
Carleton	5		37	5	16	1	20				4			14
Concordia			51	1	7				15		16		10	
Conestoga											1			
Dal		16	11		6		7		6	2	5	4		
ETS			51		13				2		12		1	
Guelph	32			1			31				6			
Lakehead		12	8		4						7		1	
Laurentian		8									5	9		
Laval	5	6	29	2	2	1	7	11	12	1	5	4	3	6
Manitoba	12		13	1	9						12			
McGill		33	28	5	16					10	20	9	8	
McMaster		24	23	2	22	2				19	14		5	
Moncton			2		1									
MUN			9	1	3						10			11
NSAC														
Ottawa	7	20	27	3	4						8		3	
Polytechnique	18	35	47	3	9	7		10	23		30	1	8	10
Queen's		30	45	5	10	22		27			29	16		
Regina				1			12		5					7
RMC														
Ryerson	28	19	30	2	13				9		12			14
Saskatchewan		22	18			1	11	3			5			
SFU						28					9			
Sherbrooke		15	15	2	2						10			
SMU														
Toronto		49	32		59	54			38	15	22	6		
UBC	6	16	23	10	25	2	17	11		6	23	7		10
UBCO			5		2						8			
UNB		13	17		4			6			7		1	4
UNBC							17							
UOIT					3						7		2	5
UQAC			7		2			1			4			
UQAR					2						1			1
UQAT											1			4
UQO														

UQTR		2			4				22					
UVic	2				12						9			
Waterloo		54	28	10	8		16				36		14	45
Western		25	17	2	5						12		6	6
Windsor			14		9		6		6		17			
York				1							2			2
TOTAL	115	466	657	61	314	120	144	69	138	66	428	62	64	178

Post-graduate Enrolment (G)

Table G.1.1 Total full-time master's students: 2012 to 2016

Year	2012	2013	2014	2015	2016
Cdn Male	4,818	4,654	4,001	4,259	4,232
Cdn Female	1,385	1,396	1,221	1,334	1,459
Visa Male	4,252	4,454	4,945	5,569	5,814
Visa Female	1,298	1,348	1,679	1,877	1,971
Total	11,752	11,852	11,845	13,040	13,476

Table G.1.2 Total full-time doctoral students: 2012 to 2016

Year	2012	2013	2014	2015	2016
Cdn Male	3,390	3,336	3,065	3,064	2,839
Cdn Female	966	1,089	1,000	989	963
Visa Male	3,227	3,287	3,615	4,018	4,136
Visa Female	894	997	1,076	1,150	1,209
Total	8,477	8,709	8,756	9,221	9,146

Table G.1.3 Total part-time master's students: 2012 to 2016

Year	2012	2013	2014	2015	2016
Cdn Male	1,978	1,790	1,290	1,190	1,470
Cdn Female	554	498	395	324	375
Visa Male	132	204	203	228	310
Visa Female	40	47	64	70	110
Total	2,703	2,539	1,952	1,812	2,264

Table G.1.4 Total part-time doctoral students: 2012 to 2016

Year	2012	2013	2014	2015	2016
Cdn Male	311	285	239	255	236
Cdn Female	51	59	52	56	53
Visa Male	36	39	34	34	31
Visa Female	6	2	9	6	7
Total	404	386	334	351	327

Table G.1.5 Total full-time equivalent master's students by discipline: 2012 to 2016

Discipline	2012	2013	2014	2015	2016
Biosystems	382	378	415	431	464
Chemical	1,099	1,026	910	989	1,070
Civil	2,060	1,875	1,843	2,064	2,280

Computer	322	439	337	402	376
Electrical	3,432	3,420	3,412	3,645	3,582
Engineering Physics	202	184	202	203	179
Environmental	268	296	352	360	396
Geological	19	18	16	16	17
Industrial or Manufacturing	392	427	449	415	458
Materials or Metallurgical	246	261	242	239	251
Mechanical	2,083	2,110	2,148	2,517	2,699
Mining or Mineral	160	148	188	211	210
Software	203	284	297	344	347
Other	1,826	1,856	1,836	1,878	1,900
TOTAL	12,694	12,725	12,646	13,715	14,229

Table G.1.6 Total full-time equivalent doctoral students by discipline: 2012 to 2016

Discipline	2012	2013	2014	2015	2016
Biosystems	325	429	448	483	508
Chemical	1,076	1,007	958	967	980
Civil	1,282	1,292	1,334	1,424	1,352
Computer	156	145	149	199	230
Electrical	2,445	2,354	2,406	2,423	2,390
Engineering Physics	211	219	227	247	192
Environmental	99	136	116	126	143
Geological	8	11	6	2	0
Industrial or Manufacturing	176	185	185	214	193
Materials or Metallurgical	375	359	366	362	380
Mechanical	1,495	1,631	1,608	1,662	1,666
Mining or Mineral	101	100	119	124	142
Software	18	27	51	17	29
Other	863	958	928	1,134	1,055
TOTAL	8,631	8,851	8,899	9,383	9,260

Table G.1.7 Total full-time equivalent female master's students by discipline: 2012 to 2016

Discipline	2012	2013	2014	2015	2016
Biosystems	169	152	164	171	184
Chemical	383	358	321	370	387
Civil	543	505	489	566	637
Computer	58	56	68	83	102
Electrical	671	721	789	840	873
Engineering Physics	43	42	45	44	44
Environmental	110	134	162	162	182
Geological	9	7	5	4	6
Industrial or Manufacturing	113	114	112	98	119
Materials or Metallurgical	73	77	68	66	65
Mechanical	267	276	328	383	417
Mining or Mineral	42	35	47	53	55
Software	36	54	66	86	97
Other	370	401	412	426	427
TOTAL	2,888	2,933	3,075	3,352	3,596

Table G.1.8 Total full-time equivalent female doctoral students by discipline: 2012 to 2016

Discipline	2012	2013	2014	2015	2016
Biosystems	122	160	161	174	192
Chemical	346	351	327	316	315
Civil	309	317	337	350	356
Computer	42	36	33	46	53
Electrical	407	427	452	456	462
Engineering Physics	41	47	52	55	39
Environmental	34	51	44	52	55
Geological	2	3	2	1	0
Industrial or Manufacturing	39	39	42	53	51
Materials or Metallurgical	99	99	106	121	115
Mechanical	253	347	278	264	271
Mining or Mineral	26	26	36	36	40
Software	2	4	9	2	6
Other	162	204	226	250	236
TOTAL	1,882	2,112	2,104	2,177	2,193

Table G.1.9 Total full-time equivalent foreign master's students by discipline: 2012 to 2016

Discipline	2012	2013	2014	2015	2016
Biosystems	114	130	117	127	138
Chemical	523	398	492	533	570
Civil	681	701	708	849	975
Computer	164	203	184	234	219
Electrical	1,892	1,904	2,200	2,390	2,360
Engineering Physics	61	67	61	73	64
Environmental	118	132	185	185	207
Geological	3	6	5	4	3
Industrial or Manufacturing	170	218	247	236	284
Materials or Metallurgical	107	124	109	103	111
Mechanical	816	913	1,056	1,352	1,494
Mining or Mineral	71	73	85	99	96
Software	95	184	231	258	246
Other	803	858	1,056	1,132	1,197
TOTAL	5,617	5,912	6,737	7,576	7,965

Table G.1.10 Total full-time equivalent foreign doctoral students by discipline: 2012 to 2016

Discipline	2012	2013	2014	2015	2016
Biosystems	101	161	175	188	213
Chemical	555	481	523	553	607
Civil	583	613	678	738	735
Computer	74	80	76	113	134
Electrical	1,194	1,209	1,328	1,422	1,431
Engineering Physics	83	98	108	127	99
Environmental	46	61	63	62	81
Geological	2	5	1	2	0

Industrial or Manufacturing	86	100	98	113	96
Materials or Metallurgical	219	199	218	229	250
Mechanical	734	786	872	955	1,006
Mining or Mineral	48	49	61	65	75
Software	7	11	17	5	4
Other	408	450	494	641	628
TOTAL	4,139	4,300	4,712	5,213	5,359

Table G.2.1 Total full-time equivalent master's students by province: 2012 to 2016

Province	2012	2013	2014	2015	2016
AB	1,578	1,307	1,071	1,214	1,324
BC	851	848	857	1,065	871
MB	214	228	248	245	253
NB	180	171	133	151	139
NL	277	267	298	300	359
NS	335	418	389	367	366
ON	4,814	5,343	5,296	5,503	5,912
PE					
QC	4,123	3,799	4,023	4,479	4,578
SK	323	344	332	391	428
TOTAL	12,694	12,725	12,646	13,715	14,229

Table G.2.2 Total full-time equivalent doctoral students by province: 2012 to 2016

Province	2012	2013	2014	2015	2016
AB	1,233	1,141	1,081	1,101	1,103
BC	885	895	884	1,039	842
MB	213	214	214	240	245
NB	114	111	86	76	93
NL	100	127	151	165	213
NS	91	113	123	144	148
ON	3,103	3,294	3,394	3,424	3,455
PE					
QC	2,701	2,751	2,768	2,858	2,925
SK	190	206	200	337	237
TOTAL	8,631	8,851	8,899	9,383	9,260

Table G.2.3 Total full-time equivalent female master's students by province: 2012 to 2016

Province	2012	2013	2014	2015	2016
AB	416	361	325	360	407
BC	196	194	197	243	226
MB	49	57	67	61	65
NB	34	35	24	41	36
NL	69	72	69	63	66
NS	44	61	62	78	86
ON	1,077	1,212	1,302	1,378	1,509
PE					
QC	910	847	943	1,029	1,098

SK	91	95	87	100	104
TOTAL	2,888	2,933	3,075	3,352	3,596

Table G.2.4 Total full-time equivalent female doctoral students by province: 2012 to 2016

Province	2012	2013	2014	2015	2016
AB	269	332	276	255	263
BC	183	188	190	200	188
MB	39	42	44	50	54
NB	31	34	21	17	18
NL	16	23	32	34	41
NS	21	29	28	33	29
ON	674	743	766	792	801
PE					
QC	601	667	688	714	736
SK	48	53	60	83	63
TOTAL	1,882	2,112	2,104	2,177	2,193

Table G.2.5 Total full-time equivalent foreign master's students by province: 2012 to 2016

Province	2012	2013	2014	2015	2016
AB	801	610	622	656	675
BC	427	459	502	665	540
MB	109	123	135	134	149
NB	88	87	68	60	49
NL	217	205	245	264	297
NS	247	294	268	255	274
ON	1,759	1,983	2,474	2,737	3,058
PE					
QC	1,756	1,916	2,183	2,538	2,644
SK	212	236	241	267	280
TOTAL	5,617	5,912	6,737	7,576	7,965

Table G.2.6 Total full-time equivalent foreign doctoral students by province: 2012 to 2016

Province	2012	2013	2014	2015	2016
AB	696	485	719	721	777
BC	522	534	536	643	522
MB	114	123	135	148	153
NB	74	77	57	27	47
NL	56	80	105	125	160
NS	40	48	64	67	69
ON	1,163	1,358	1,454	1,587	1,634
PE					
QC	1,348	1,452	1,503	1,710	1,843
SK	127	143	139	187	154
TOTAL	4,139	4,300	4,712	5,213	5,359

Table G.2.7 Total full-time equivalent postgraduate student enrolment by province and discipline: 2016

Discipline	AB	BC	MB	NB	NL	NS	ON	PE	QC	SK	Total

Biosystems	95	197	69	1		38	357		132	82	972
Chemical	616			52		42	896		395	49	2,050
Civil	400	270	118	34	82	53	1,366		1,214	96	3,632
Computer	81	6			82		235		167	34	606
Electrical	384	521	177	38	65	79	2,849		1,749	109	5,972
Engineering Physics	49	110				14	74		125		371
Environmental		23			21	14	241		188	52	539
Geological							17				17
Industrial or Manufacturing			31			24	112		447	37	651
Materials or Metallurgical	101	85				17	177		238		618
Mechanical	441	421	103	55	67	40	1,994		1,122	122	4,366
Mining or Mineral	106	80				8	74		85		353
Software							58		307	10	375
Other	153			53	255	185	902		1,334	74	2,955

Table G.2.8 Total full-time equivalent female postgraduate student enrolment by province and discipline: 2016

Discipline	AB	BC	MB	NB	NL	NS	ON	PE	QC	SK	Total
Biosystems	43	68	26	1		15	143		54	26	376
Chemical	210			14		10	300		149	20	703
Civil	134	70	31	8	19	21	360		324	26	993
Computer	23	2			16		73		35	7	156
Electrical	83	113	41	9	12	11	668		378	20	1,335
Engineering Physics	16	34				3	11		20		83
Environmental		3			9	8	108		89	22	238
Geological							6				6
Industrial or Manufacturing			6			7	14		135	8	171
Materials or Metallurgical	25	30				3	45		73		177
Mechanical	76	69	14	11	7	5	328		161	18	688
Mining or Mineral	23	26				2	21		23		95
Software							15		87	1	103
Other	36			11	44	30	215		305	21	663

Table G.3.1 Total full-time postgraduate students by institution: 2012 to 2016

Institution	2012	2013	2014	2015	2016
Alberta	1,495	1,493	1,344	1,317	1,334
Calgary	1,223	898	788	998	989
Carleton	669	717	727	757	831
Concordia	1,677	1,752	1,879	2,102	2,184
Dal	415	520	487	489	506
ETS	1,161	918	1,116	1,249	1,287
Guelph	132	128	155	161	169
Lakehead	48	41	56	74	158
Laurentian	55	31	50	37	42
Laval	487	531	531	494	504
Manitoba	414	429	452	477	488
McGill	1,081	969	842	846	872
McMaster	499	639	697	731	741
Moncton	15	15	10	18	15

MUN	348	363	423	465	547
NSAC			0		0
Ottawa	608	810	918	904	885
Polytechnique	1,273	1,288	1,314	1,400	1,413
Queen's	433	446	471	468	456
Regina	170	182	188	231	179
RMC	96	88	92	95	86
Ryerson	718	707	551	584	600
Saskatchewan	324	342	324	425	463
SFU	207	190	194	181	177
Sherbrooke	523	492	485	540	544
SMU			2	7	7
Toronto	1,549	1,688	1,839	1,900	1,989
UBC	1,068	1,074	1,037	984	917
UBCO	140	142	164	549	202
UNB	234	221	166	163	186
UOIT	142	214	158	174	191
UQAC	117	147	94	211	196
UQAM			18		
UQAR	19	15	22	25	35
UQAT	38	23	28	29	57
UQTR	101	110	117	125	126
UVic	306	324	304	337	335
Waterloo	1,293	1,339	1,290	1,261	1,310
Western	556	574	582	708	657
Windsor	510	628	670	717	885
York		6	17	24	46
TOTAL	20,144	20,493	20,601	22,254	22,610

Table G.3.2 Total part-time postgraduate students by institution: 2012 to 2016

Institution	2012	2013	2014	2015	2016
Alberta	0	0	0	0	0
Calgary	234	158	33	0	261
Carleton	162	139	140	128	120
Concordia	100	87	107	136	124
Dal	17	12	40	13	29
ETS	331	364	387	365	324
Guelph	35	27	28	24	24
Lakehead	1	1	0	0	0
Laurentian	0	26	0	1	10
Laval	55	41	39	42	31
Manitoba	45	43	37	31	35
McGill	58	0	48	56	55
McMaster	444	433	107	97	65
Moncton	0	0	9	6	6
MUN	55	58	76	76	72
NSAC			0		0
Ottawa	110	101	109	131	93

Polytechnique	109	112	114	127	126
Queen's	58	50	35	34	36
Regina	38	41	38	39	44
RMC	20	17	23	25	26
Ryerson	93	150	79	72	70
Saskatchewan	0	0	0	0	0
SFU	8	14	18	27	27
Sherbrooke	153	145	0	0	221
SMU			0	0	1
Toronto	214	201	168	146	153
UBC	33	26	105	105	193
UBCO	0	0	0	2	2
UNB	44	41	42	45	31
UOIT	50	63	61	72	65
UQAC	0	0	5	0	8
UQAM			0		
UQAR	0	2	0	1	0
UQAT	0	0	2	2	0
UQTR	139	114	76	38	19
UVic	0	0	0	0	0
Waterloo	405	375	304	278	277
Western	55	37	27	29	11
Windsor	19	23	28	23	20
York		2	3	4	13
TOTAL	3,084	2,904	2,286	2,175	2,591

Table G.3.3 Total full-time female postgraduate students by institution: 2012 to 2016

Institution	2012	2013	2014	2015	2016
Alberta	365	438	378	347	341
Calgary	301	246	219	268	304
Carleton	137	152	163	177	208
Concordia	363	391	440	489	529
Dal	65	88	89	108	115
ETS	223	186	270	293	320
Guelph	29	30	43	49	47
Lakehead	10	4	9	14	29
Laurentian	9	3	10	8	9
Laval	99	116	116	127	133
Manitoba	85	97	108	109	117
McGill	235	206	194	197	211
McMaster	135	171	186	190	197
Moncton	1	2	2	4	3
MUN	79	89	97	98	104
NSAC			0		0
Ottawa	135	203	252	245	233
Polytechnique	361	379	380	378	383
Queen's	97	100	104	105	109

Regina	45	53	55	52	53
RMC	17	17	15	15	16
Ryerson	117	115	117	133	156
Saskatchewan	88	89	86	107	109
SFU	40	41	45	46	49
Sherbrooke	88	83	87	88	96
SMU			0	0	0
Toronto	405	440	492	527	547
UBC	256	262	261	258	243
UBCO	30	23	20	68	25
UNB	59	56	34	44	43
UOIT	21	41	33	38	32
UQAC	26	40	29	66	53
UQAM			2		
UQAR	2	1	2	3	5
UQAT	6	4	4	5	11
UQTR	17	28	26	29	27
UVic	49	53	53	60	77
Waterloo	290	303	292	286	326
Western	137	146	152	190	176
Windsor	89	110	105	126	152
York		1	5	7	12
TOTAL	4,512	4,806	4,975	5,352	5,598

Table G.3.4 Total part-time female postgraduate students by institution: 2012 to 2016

Institution	2012	2013	2014	2015	2016
Alberta	0	0	0	0	0
Calgary	47	24	6	0	60
Carleton	29	24	31	30	19
Concordia	19	13	18	23	26
Dal	1	3	1	2	5
ETS	67	80	90	80	67
Guelph	8	11	12	8	8
Lakehead	0	0	0	0	0
Laurentian	0	4	0	0	2
Laval	14	6	8	7	10
Manitoba	13	8	8	5	7
McGill	12	0	6	9	14
McMaster	74	70	23	17	13
Moncton	0	0	2	2	2
MUN	11	11	13	9	9
NSAC			0		0
Ottawa	18	20	27	32	24
Polytechnique	28	30	40	43	37
Queen's	13	11	6	6	5
Regina	12	10	10	9	10
RMC	4	0	7	6	6
Ryerson	7	19	14	11	7

Saskatchewan	0	0	0	0	0
SFU	1	1	2	4	6
Sherbrooke	31	32	0	0	42
SMU			0	0	0
Toronto	47	47	38	28	27
UBC	10	8	28	30	46
UBCO	0	0	0	0	0
UNB	4	10	10	10	7
UOIT	9	12	8	11	9
UQAC	0	0	3	0	2
UQAM			0		
UQAR	0	1	0	0	0
UQAT	0	0	0	0	0
UQTR	81	64	44	18	6
UVic	0	0	0	0	0
Waterloo	83	70	56	53	60
Western	3	11	6	8	2
Windsor	2	2	2	2	3
York		1	2	1	3
TOTAL	648	603	520	462	545

Table G.3.5 Total full-time postgraduate students by institution and discipline: 2016

Institution	Biosystems	Chemical	Civil	Computer	Electrical	Engineering Physics	Environmental	Geological	Industrial or Manufacturing	Materials or Metallurgical	Mechanical	Mining or Mineral	Software	Other
Alberta		207	273	81	190	49				101	258	106		69
Calgary	95	369	118		173						154			80
Carleton			127	11	384		38			4	96		18	153
Concordia			514		795				130		371		248	126
Dal	38	42	53		79	7	14		24	17	40	8		185
ETS			95		118		80		44		92		34	823
Guelph	28			38			73				30			
Lakehead			22		63		35				38			
Laurentian												42		
Laval		74	105		98		46			59	110	10		2
Manitoba	69		115		172				31		102			
McGill	36	101	107		283					150	195			
McMaster	53	88	64	75	123	57			1	56	102		37	85
Moncton														15
MUN			79	81	61		21				63			242
NSAC														
Ottawa	26	92	151		338		62				115			102
Polytechnique	95	120	173	164	187	137			202	26	185	72		53
Queen's		67	91		112	16		17			126	27		
Regina				28			42		33				9	67
RMC		24	14		33						7			8
Ryerson	7	36	113	91	165						108			81
Saskatchewan	82	49	96		109		5				122			
SFU						90					87			
Sherbrooke		67	162		163						142			10
SMU						7								
Toronto	240	229	266		517					84	508			145
UBC	186		176		264		20			82	119	70		
UBCO			80		68						54			
UNB	1	45	26		33						51			29
UOIT					64						70			58
UQAC							56							140
UQAR														35
UQAT														57
UQTR		29			55				43					
UVic				6	176						152			
Waterloo		196	184		438						274			218
Western		153	189		202						114			

Windsor			83		310		26		109	33	324			
York			19	7							21			
TOTAL	958	1,986	3,495	581	5,771	362	518	17	616	611	4,229	334	347	2,785

Table G.3.6 Total part-time postgraduate students by institution and discipline: 2016

Institution	Biosystems	Chemical	Civil	Computer	Electrical	Engineering Physics	Environmental	Geological	Mechanical	Industrial or Manufacturing	Materials or Metallurgical	Mining or Mineral	Software	Other
Alberta														
Calgary		99	25		55						75			7
Carleton			23	1	65		5				12		1	13
Concordia			39		31				6		15		22	11
Dal	2	0	6		5	1			5		1			9
ETS			47		43		15		9		23		25	161
Guelph	3			6			15				1			
Lakehead														
Laurentian												10		
Laval			13		10						1	4		3
Manitoba	3		11		18				2		2			
McGill		4	12		10					7	22			
McMaster	1	3	8	7	10	1			2	0	9		7	18
Moncton														6
MUN			9	4	11						13			35
NSAC														
Ottawa	0	3	16		37		3				13			22
Polytechnique	3	6	28	11	14	-12			56		6	2		13
Queen's		1	8		10						7	10		
Regina				11			10		8				2	13
RMC		8	2		13						2			1
Ryerson	1	3	17	4	23						14			9
Saskatchewan														
SFU						27								
Sherbrooke														221
SMU						1								
Toronto	2	8	45		47					0	47			4
UBC	36		42		40		11			10	28	26		
UBCO			1		1						0			
UNB		6	7		5						4			8
UOIT					13						20			33
UQAC														8
UQAR														
UQAT														
UQTR		2			6				11					

UVic														
Waterloo		14	38		100						55			70
Western		1	4		3						2			
Windsor			4		5		1		4		6			
York			2	9							3			
TOTAL	49	159	406	52	574	18	60		103	17	380	52	57	664

Table G.3.7 Total full-time female postgraduate students by institution and discipline: 2016

Institution	Biosystems	Chemical	Civil	Computer	Electrical	Engineering Physics	Environmental	Geological	Mechanical	Industrial or Manufacturing	Materials or Metallurgical	Mining or Mineral	Software	Other
Alberta		78	88	23	28	16				25	43	23		17
Calgary	43	121	43		48						29			19
Carleton			28	7	97		23				17		5	31
Concordia			144		216				30		37		73	29
Dal	15	10	21		11	3	8		7	3	5	2		30
ETS			23		21		44		9		12		10	200
Guelph	7			9			26				5			
Lakehead			1		10		15				3			
Laurentian												9		
Laval		24	22		17		20			22	24	3		1
Manitoba	26		31		41				6		14			
McGill	13	40	35		48					43	32			
McMaster	26	27	16	18	31	8			0	21	17		10	23
Moncton														3
MUN			18	16	12		9				6			43
NSAC														
Ottawa	7	33	29		99		28				10			28
Polytechnique	41	57	51	34	31	26			77	8	32	20		6
Queen's		19	24		17	3		6			31	10		
Regina				6			19		7				1	20
RMC		6	5		1						3			1
Ryerson	2	12	34	33	39						24			13
Saskatchewan	26	20	26		20		0				18			
SFU						29					21			
Sherbrooke		17	33		25						20			1
SMU														
Toronto	100	89	92		109					19	118			20
UBC	64		56		51		2			29	17	24		
UBCO			10		10						5			
UNB	1	11	6		7						11			7
UOIT					14						10			9
UQAC							21							32

UQAR														5
UQAT														11
UQTR		9			8				10					
UVic				2	50						25			
Waterloo		54	59		98						36			79
Western		58	44		53						21			
Windsor			13		87		14		13	6	19			
York			5	3							4			
TOTAL	371	684	957	151	1,295	84	228	6	160	175	670	91	98	627

Table G.3.8 Total part-time female postgraduate enrolment by institution and discipline: 2016

Institution Alberta	Biosystems	Chemical	Civil	Computer	Electrical	Engineering Physics	Environmental	Geological	Mechanical	Industrial or Manufacturing	Materials or Metallurgical	Mining or Mineral	Software	Other
Calgary		28	7		17						7			1
Carleton			3		12		2				1			1
Concordia			9		8				1		2		3	3
Dal			0		1				1					3
ETS			11		8		8		1				4	35
Guelph	2						5				0			
Lakehead														
Laurentian												2		
Laval			5		3							1		1
Manitoba	1		3		2						1			
McGill		2	4		2					2	4			
McMaster	0	0	3	1	1						1		1	4
Moncton														2
MUN			3								2			4
NSAC														
Ottawa		1	4		10		2				3			5
Polytechnique	2	3	11	2	3	-6			20		1	0		1
Queen's			0		1						1	3		
Regina				1			4		1				0	3
RMC		3			1						1			1
Ryerson	1	1	2	1	0						2			1
Saskatchewan														
SFU						6								
Sherbrooke														42
SMU														
Toronto	0	3	10		5					0	9			1
UBC	12		13		7		3			3	4	4		

UBCO													
UNB		3	2		2								1
UOIT					3					2			4
UQAC													2
UQAR													
UQAT													
UQTR		0			1			5					
UVic													
Waterloo		3	12		15					9			21
Western		0	1		0								
Windsor			1		0			2					
York			0	3						0			
TOTAL	18	47	104	8	102	0	24		32	5	51	10	9	135

Post-graduate Degrees Awarded (GD)

Table GD.1.1 Total master's degrees awarded by discipline: 2012 to 2016

Discipline	2012	2013	2014	2015	2016
Biosystems	131	186	153	159	160
Chemical	408	424	469	463	492
Civil	891	879	902	874	939
Computer	164	183	168	185	171
Electrical	1,354	1,441	1,619	1,539	1,796
Engineering Physics	76	75	64	61	67
Environmental	134	129	152	180	200
Geological	9	8	9	11	14
Industrial or Manufacturing	172	236	237	268	204
Materials or Metallurgical	97	97	119	93	90
Mechanical	905	834	950	1,062	1,255
Mining or Mineral	66	88	56	83	83
Software	65	88	124	149	173
Other	747	828	945	1,126	895
TOTAL	5,219	5,496	5,978	6,253	6,539

Table GD.1.2 Total doctoral degrees awarded by discipline: 2012 to 2016

Discipline	2012	2013	2014	2015	2016
Biosystems	41	60	50	66	62
Chemical	165	169	185	174	200
Civil	170	187	171	213	259
Computer	25	22	28	32	32
Electrical	330	389	384	368	387
Engineering Physics	38	43	48	36	33
Environmental	16	14	18	20	19
Geological	1	0	1	1	1
Industrial or Manufacturing	18	24	27	31	34
Materials or Metallurgical	52	48	71	49	37
Mechanical	191	236	260	264	290
Mining or Mineral	6	29	14	18	27
Software	0	3	3	3	2

Other	109	106	124	146	163
TOTAL	1,162	1,330	1,389	1,421	1,546

Table GD.1.3 Total master's degrees awarded to women by discipline: 2012 to 2016

Discipline	2012	2013	2014	2015	2016
Biosystems	63	74	66	63	69
Chemical	131	145	180	167	187
Civil	253	214	247	235	299
Computer	41	31	35	45	30
Electrical	241	305	354	363	432
Engineering Physics	22	16	14	14	16
Environmental	39	48	69	77	101
Geological	6	2	4	4	5
Industrial or Manufacturing	47	104	71	99	49
Materials or Metallurgical	32	30	39	26	30
Mechanical	126	105	132	146	190
Mining or Mineral	18	16	17	17	17
Software	16	15	23	40	36
Other	131	170	195	238	204
TOTAL	1,166	1,275	1,453	1,534	1,665

Table GD.1.4 Total doctoral degrees awarded to women by discipline: 2012 to 2016

Discipline	2012	2013	2014	2015	2016
Biosystems	17	25	16	21	21
Chemical	50	39	65	61	72
Civil	39	32	31	49	63
Computer	10	6	7	3	11
Electrical	54	45	54	60	62
Engineering Physics	3	4	8	12	11
Environmental	3	3	4	4	7
Geological	1	0	0	0	0
Industrial or Manufacturing	1	3	7	9	8
Materials or Metallurgical	13	10	21	15	13
Mechanical	18	34	49	49	53
Mining or Mineral	2	5	1	3	8
Software	0	2	2	0	0
Other	28	12	23	28	37
TOTAL	239	220	288	314	366

Table GD.1.5 Total master's degrees awarded to foreign students by discipline: 2012 to 2016

Discipline	2012	2013	2014	2015	2016
Biosystems	32	61	61	50	55
Chemical	183	156	248	264	263
Civil	320	269	328	354	413
Computer	76	74	99	95	105
Electrical	724	756	1,031	966	1,237
Engineering Physics	25	24	20	22	30

Environmental	48	69	78	107	118
Geological	0	2	2	2	6
Industrial or Manufacturing	75	83	114	120	108
Materials or Metallurgical	47	48	52	39	50
Mechanical	325	314	436	530	748
Mining or Mineral	36	38	37	47	39
Software	26	51	75	118	136
Other	340	426	551	723	601
TOTAL	2,257	2,371	3,141	3,437	3,909

Table GD.1.6 Total doctoral degrees awarded to foreign students by discipline: 2012 to 2016

Discipline	2012	2013	2014	2015	2016
Biosystems	3	13	11	15	17
Chemical	45	56	56	65	93
Civil	33	35	48	84	88
Computer	7	6	10	12	12
Electrical	89	110	122	137	180
Engineering Physics	9	11	18	13	11
Environmental	3	4	9	11	4
Geological	0	0	0	0	0
Industrial or Manufacturing	6	5	10	12	12
Materials or Metallurgical	14	20	28	20	22
Mechanical	36	60	96	97	129
Mining or Mineral	1	9	5	5	11
Software	0	2	2	1	0
Other	33	31	44	72	63
TOTAL	279	362	463	544	642

Table GD.2.1 Total master's degrees awarded by province: 2012 to 2016

Province	2012	2013	2014	2015	2016
AB	644	460	494	433	407
BC	404	340	317	345	380
MB	62	62	74	89	76
NB	65	50	67	24	54
NL	79	103	120	131	134
NS	128	173	217	341	133
ON	2,323	2,652	2,905	3,057	3,330
PE					
QC	1,394	1,537	1,644	1,689	1,885
SK	120	119	140	144	140
TOTAL	5,219	5,496	5,978	6,253	6,539

Table GD.2.2 Total doctoral degrees awarded by province: 2012 to 2016

Province	2012	2013	2014	2015	2016
AB	154	203	221	153	205
BC	98	126	111	116	117
MB	39	28	29	27	52

NB	13	18	16	11	11
NL	7	12	14	19	16
NS	11	16	18	19	26
ON	500	552	520	615	651
PE					
QC	313	354	425	425	438
SK	27	21	35	36	30
TOTAL	1,162	1,330	1,389	1,421	1,546

Table GD.2.3 Total master's degrees awarded to women by province: 2012 to 2016

Province	2012	2013	2014	2015	2016
AB	159	106	145	116	139
BC	101	87	75	70	79
MB	15	14	14	21	21
NB	9	12	17	5	9
NL	19	28	28	34	36
NS	24	27	26	40	28
ON	496	578	732	755	892
PE					
QC	308	389	370	451	423
SK	35	34	46	42	38
TOTAL	1,166	1,275	1,453	1,534	1,665

Table GD.2.4 Total doctoral degrees awarded to women by province: 2012 to 2016

Province	2012	2013	2014	2015	2016
AB	35	31	44	35	46
BC	16	27	25	20	24
MB	4	4	6	3	6
NB	2	3	4	3	4
NL	0	2	3	0	3
NS	1	5	4	4	12
ON	118	90	103	143	152
PE					
QC	57	51	90	100	112
SK	6	7	9	6	7
TOTAL	239	220	288	314	366

Table GD.2.5 Total master's degrees awarded to foreign students by province: 2012 to 2016

Province	2012	2013	2014	2015	2016
AB	373	215	279	242	231
BC	174	164	142	177	235
MB	23	28	48	46	41
NB	39	31	35	20	31
NL	59	87	103	113	112
NS	84	137	173	284	96
ON	800	946	1,398	1,532	1,902
PE					

QC	634	676	862	908	1,153
SK	71	87	101	115	108
TOTAL	2,257	2,371	3,141	3,437	3,909

Table GD.2.6 Total doctoral degrees awarded to foreign students by province: 2012 to 2016

Province	2012	2013	2014	2015	2016
AB	44	66	84	77	100
BC	39	46	57	64	58
MB	8	5	9	12	23
NB	8	12	7	7	6
NL	4	3	8	5	4
NS	2	3	5	5	7
ON	98	106	134	186	221
PE					
QC	67	110	133	167	214
SK	9	11	26	21	9
TOTAL	279	362	463	544	642

Table GD.2.7 Total master's degrees awarded by province and discipline: 2016

Discipline	AB	BC	MB	NB	NL	NS	ON	PE	QC	SK	Total
Biosystems	20	37	3	1		8	61		18	12	160
Chemical	121			15			288		61	7	492
Civil	65	67	19	7	6	8	442		313	12	939
Computer	10	4			14		93		37	13	171
Electrical	54	96	23	12	6	15	1,073		501	16	1,796
Engineering Physics	6	22					16		23		67
Environmental		24			13	5	94		49	15	200
Geological		9					5				14
Industrial or Manufacturing			9			14	28		138	15	204
Materials or Metallurgical	12	5					51		22		90
Mechanical	75	84	22	9	8	17	732		296	12	1,255
Mining or Mineral	18	32					23		10		83
Software							9		157	7	173
Other	26			10	87	66	415		260	31	895
TOTAL	407	380	76	54	134	133	3,330		1,885	140	6,539

Table GD.2.8 Total doctoral degrees awarded by province and discipline: 2016

Discipline	AB	BC	MB	NB	NL	NS	ON	PE	QC	SK	Total
Biosystems		9	8			7	22		12	4	62
Chemical	48			4			105		43		200
Civil	49	12	8	2	4	8	103		71	2	259
Computer	6	2			1		8		13	2	32
Electrical	32	43	22	2	2	2	191		91	2	387
Engineering Physics	4	10					4		15		33
Environmental							9		3	7	19
Geological							1				1

Industrial or Manufacturing			13			1	6		13	1	34
Materials or Metallurgical	4	5				3	10		15		37
Mechanical	29	35	1	1	3	5	138		69	9	290
Mining or Mineral	12	1					7		7		27
Software							2				2
Other	21			2	6		45		86	3	163
TOTAL	205	117	52	11	16	26	651		438	30	1,546

Table GD.3.1 Total master's degrees awarded by institution: 2012 to 2016

Institution	2012	2013	2014	2015	2016
Acadia			0		
Alberta	329	281	279	239	198
BCIT	0	0	0	0	0
Calgary	315	179	215	194	209
Carleton	177	193	230	251	258
Concordia	534	572	626	667	783
Conestoga	0	0	0	0	0
Dal	128	173	205	341	131
ETS	239	259	293	385	391
Guelph	46	44	44	46	50
Lakehead	14	16	0	8	18
Laurentian	0	61	0	11	8
Laval	75	70	70	60	86
Manitoba	62	62	74	89	76
McGill	122	157	124	153	160
McMaster	225	255	230	250	218
Moncton	1	2	4	0	5
MUN	79	103	120	131	134
NSAC			11	0	0
Ottawa	165	241	465	414	532
Polytechnique	281	281	334	222	304
Queen's	103	113	106	118	151
Regina	49	60	76	83	80
RMC	26	22	19	16	24
Ryerson	231	295	189,39	176	162
Saskatchewan	71	59	64	61	60
SFU	37	38	28	31	31
Sherbrooke	61	65	90	91	79
SMU			1		2
Toronto	482	496	540	631	669
UBC	300	251	237	237	248
UBCO	22	20	24	37	41
UNB	64	48	63	24	49
UNBC	0	0	0	0	0
UOIT	47	30	36	39	79
UQAC	22	8	12	8	33
UQAM	0	0	5		

UQAR	7	8	2	5	8
UQAT	13	19	10	5	0
UQO	0	0	0	0	0
UQTR	40	98	78	93	41
UVic	45	31	28	40	60
Waterloo	415	502	486	480	416
Western	175	131	187	217	286
Windsor	217	253	373	396	451
York	0		0	4	8
TOTAL	5,219	5,496	5,978	6,253	6,539

Table GD.3.2 Total doctoral degrees awarded by institution: 2012 to 2016

Institution	2012	2013	2014	2015	2016
Acadia			0		
Alberta	78	111	126	83	120
BCIT	0	0	0	0	0
Calgary	76	92	95	70	85
Carleton	23	36	30	36	41
Concordia	70	60	53	56	74
Conestoga	0	0	0	0	0
Dal	11	16	13	19	26
ETS	41	35	44	58	62
Guelph	4	9	7	12	10
Lakehead	0	0	0	0	0
Laurentian	0	31	0	3	4
Laval	24	33	33	40	35
Manitoba	39	28	29	27	52
McGill	59	100	120	106	94
McMaster	66	40	36	65	69
Moncton	0	0	0	0	0
MUN	7	12	14	19	16
NSAC			5	0	0
Ottawa	28	21	39	25	44
Polytechnique	80	88	117	95	107
Queen's	35	46	36	48	40
Regina	13	7	17	10	13
RMC	8	4	6	3	7
Ryerson	25	42	39	44	43
Saskatchewan	14	14	18	26	17
SFU	13	12	12	24	23
Sherbrooke	25	27	42	48	36
SMU			0		0
Toronto	115	106	110	152	150
UBC	67	93	67	50	42
UBCO	1	7	7	15	17
UNB	13	18	16	11	11
UNBC	0	0	0	0	0
UOIT	6	10	16	14	13

UQAC	9	5	9	14	19
UQAM	0	0	0		
UQAR	0	0	0	0	0
UQAT	0	0	0	0	0
UQO	0	0	0	0	0
UQTR	5	6	7	8	11
UVic	17	14	25	27	35
Waterloo	115	134	125	150	144
Western	58	53	50	40	63
Windsor	17	20	26	23	23
York	0		0	0	0
TOTAL	1,162	1,330	1,389	1,421	1,546

Table GD.3.3 Total master's degrees awarded to women by institution: 2012 to 2016

Institution	2012	2013	2014	2015	2016
Acadia			0		
Alberta	87	63	81	66	69
BCIT	0	0	0	0	0
Calgary	72	43	64	50	70
Carleton	34	31	51	56	64
Concordia	104	129	124	179	167
Conestoga	0	0	0	0	0
Dal	24	27	19	40	28
ETS	49	39	54	85	89
Guelph	12	11	11	16	16
Lakehead	3	2	0	1	3
Laurentian	0	8	0	1	2
Laval	17	20	20	17	28
Manitoba	15	14	14	21	21
McGill	23	53	31	32	36
McMaster	56	67	90	72	56
Moncton	0	0	0	0	1
MUN	19	28	28	34	36
NSAC			7	0	0
Ottawa	28	57	125	123	147
Polytechnique	84	74	87	68	63
Queen's	29	32	30	26	39
Regina	7	13	26	26	20
RMC	6	4	2	1	4
Ryerson	39	39	40	41	34
Saskatchewan	28	21	20	16	18
SFU	9	8	5	6	8
Sherbrooke	12	12	10	12	14
SMU			0		0
Toronto	107	125	146	164	210
UBC	76	62	60	49	57
UBCO	3	11	6	6	6
UNB	9	12	17	5	8

UNBC	0	0	0	0	0
UOIT	2	5	5	9	19
UQAC	3	0	4	1	6
UQAM	0	0	0		
UQAR	0	0	0	0	1
UQAT	0	3	0	0	0
UQO	0	0	0	0	0
UQTR	16	59	40	57	19
UVic	13	6	4	9	8
Waterloo	108	123	112	129	98
Western	39	30	53	64	111
Windsor	33	44	67	50	88
York	0		0	2	1
TOTAL	1,166	1,275	1,453	1,534	1,665

Table GD.3.4 Total doctoral degrees awarded to women by institution: 2012 to 2016

Institution	2012	2013	2014	2015	2016
Acadia			0		
Alberta	18	16	22	22	30
BCIT	0	0	0	0	0
Calgary	17	15	22	13	16
Carleton	7	3	1	6	13
Concordia	8	9	12	8	17
Conestoga	0	0	0	0	0
Dal	1	5	4	4	12
ETS	8	3	7	12	19
Guelph	0	1	1	1	4
Lakehead	0	0	0	0	0
Laurentian	0	3	0	1	0
Laval	5	0	0	9	6
Manitoba	4	4	6	3	6
McGill	12	14	30	26	17
McMaster	20	9	8	13	11
Moncton	0	0	0	0	0
MUN	0	2	3	0	3
NSAC			0	0	0
Ottawa	10	4	5	3	11
Polytechnique	14	20	32	25	32
Queen's	8	6	6	11	12
Regina	4	3	5	3	3
RMC	1	0	2	2	2
Ryerson	4	8	9	11	6
Saskatchewan	2	4	4	3	4
SFU	1	0	4	5	5
Sherbrooke	6	3	7	14	9
SMU			0		0
Toronto	31	20	23	45	38
UBC	12	24	17	9	14

UBCO	0	1	0	2	1
UNB	2	3	4	3	4
UNBC	0	0	0	0	0
UOIT	1	0	5	2	2
UQAC	4	1	1	5	6
UQAM	0	0	0		
UQAR	0	0	0	0	0
UQAT	0	0	0	0	0
UQO	0	0	0	0	0
UQTR	0	1	1	1	6
UVic	3	2	4	4	4
Waterloo	26	22	26	37	30
Western	8	8	10	8	19
Windsor	2	6	7	3	4
York	0		0	0	0
TOTAL	239	220	288	314	366

Table GD.3.5 Total master's degrees awarded by institution and discipline: 2016

Institution	Biosystems	Chemical	Civil	Computer	Electrical	Engineering Physics	Environmental	Geological	Industrial or Manufacturing	Materials or Metallurgical	Mechanical	Mining or Mineral	Software	Other
Alberta		41	42	10	16	6				12	39	18		14
BCIT														
Calgary	20	80	23		58						56			12
Carleton	10		36	4	120		20			1	17			50
Concordia			141		316				48		120		133	25
Conestoga														
Dal	6		8		15		5		14		17			66
ETS			43		59		38		15		42		24	170
Guelph	6			14			26				4			
Lakehead					13		3				2			
Laurentian												8		
Laval	6	5	19		15		8			8	22	2		1
Manitoba	3		19		23				9		22			
McGill		20	37		47					14	42			
McMaster	6	17	11	23	40	11			1	8	23		9	69
Moncton														5
MUN			6	14	6		13				8			87
NSAC														
Ottawa	8	48	65		179		32				76			124
Polytechnique	12	23	55	37	34	23			46		46	8		20
Queen's		21	26		31	5		5			48	15		
Regina				13			14		15				7	31
RMC		6	6		7						2			3
Ryerson		8	29	47	52						13			13
Saskatchewan	12	7	12		16		1				12			

SFU						19					12			
Sherbrooke		9	18		22						24			6
SMU	2													
Toronto	31	80	114		179					26	202			37
UBC	37		51		44	3	24	9		5	43	32		
UBCO			16		17						8			
UNB	1	15	7		12						9			5
UNBC														
UOIT					39						31			9
UQAC							3							30
UQAR														8
UQAT														
UQO														
UQTR		4			8				29					
UVic				4	35						21			
Waterloo		62	32		140						72			110
Western		46	92		78						70			
Windsor			31		195		13		27	16	169			
York				5							3			
TOTAL	160	492	939	171	1,796	67	200	14	204	90	1,255	83	173	895

Table GD.3.6 Total doctoral degrees awarded by institution and discipline: 2016

Institution	Biosystems	Chemical	Civil	Computer	Electrical	Engineering Physics	Environmental	Geological	Industrial or Manufacturing	Materials or Metallurgical	Mechanical	Mining or Mineral	Software	Other
Alberta		26	30	6	17	4				4	17	12		4
BCIT														
Calgary		22	19		15						12			17
Carleton			5		24		1				5			6
Concordia			24		22				5		20			3
Conestoga														
Dal	7		8		2				1	3	5			
ETS														62
Guelph	3			2			4				1			
Lakehead														
Laurentian												4		
Laval		6	7		11		3			4	4			
Manitoba	8		8		22				13		1			
McGill		15	17		34					9	19			
McMaster	5	14	9	6	16	2				6	9		2	
Moncton														
MUN			4	1	2						3			6
NSAC														

Ottawa		8	11		15		3				7			
Polytechnique	12	15	9	13	11	15			4	2	17	7		2
Queen's		7	6		9	2		1			12	3		
Regina				2			7		1					3
RMC		3			1						3			
Ryerson		4	11		8						17			3
Saskatchewan	4		2		2						9			
SFU						10					13			
Sherbrooke		3	14		10						9			
SMU														
Toronto	14	17	12		43					3	45			16
UBC	9		4		17					5	6	1		
UBCO			8		6						3			
UNB		4	2		2						1			2
UNBC														
UOIT					4						8			1
UQAC														19
UQAR														
UQAT														
UQO														
UQTR		4			3				4					
UVic				2	20						13			
Waterloo		27	27		52						19			19
Western		25	18		14						6			
Windsor			4		5		1		6	1	6			
York														
TOTAL	62	200	259	32	387	33	19	1	34	37	290	27	2	163

Faculty Members by institution (F)

Table F.1.1 - Faculty Members by Institution: 2016

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
Alberta	96	5	46	9	40	9	10.9	1.7	217.6
BCIT	48	6							
Calgary	76	9	30	9	27	11			
Cape Breton	1.33						1,9		
Carleton	58	4	50.5	6	21	2	9	8	158.5
Concordia	88	11	41	16	24	3	14	4	201
Conestoga	15.8	1.25	0	0	0	0	0	0	17.05
Dal	45.33	5	21.63	5.33	6	3	13.75	2.8	102.84

ETS	70	12	95	15	10	8	158	30	398
Guelph	12	4	14	2	11	6	0	0	49
Lakehead	14	1	11	1	10	2	1		
Laurentian	11	1	8		2		1	1	
Manitoba	35	3	19	5	12	4	5	4	87
McGill	43	1	63	9	22	5	1	1	145
McMaster	83.5	5	29.7	6	16	11	1	0	152.2
Moncton	12	0	4	2	4	1	0	0	23
MUN	27	3	20.5	5	15.6	1.6	4	3	79.7
NSAC	3	0	6	0	2	1	3.34	0.67	16.01
Ottawa	54	9	24	11	15	5	6	1	125
Polytechnique	118	16	41	7	38	6	15	5	246
Queen's	68.8	12.5	25.9	1.5	15	5	13.7	3.7	146.1
Regina	19	4	8	1	4	2	12	1	51
RMC	24		23	3	6	2	19		
Ryerson	74	9	34	5	6	2	1	0	131
Saskatchewan	38	2	22	3	14.55	3	1	2	85.55
SFU	15.25	3	1	2	1	0	4	1	27.25
Sherbrooke	61	4	23	2	7	0	105	20	222
SMU	1		1		4				
StFX									
Toronto	123.21	17.7	38	16	23	13	18	7	255.91
UBC	89	12	25	5	13	9	24.12	10.45	187.57
UBCO	5	2	14	1	11	1	5.6	5	44.6
UNB	35	4	10	2	7	1	6	0	65
UNBC	3		1						
UOIT	17	0	18	4,25	6	2	10	0	57.25
UQAC	13	3	12	1	1	2	13.25	0.75	46
UQAR	10	0	0	0	0	0	7	0	17
UQAT	6		4		1		1	1	
UQO	9	1	5	3	1	0	0	0	19
UQTR	21	1	7	0	3	0	1	0	33
UVic	30.5	6	16	3	8				
Waterloo	117	16	74	15	30	11.5	23.5	5	292
Western	49	4	26	7	5.5	1	9	0	101.5
Windsor	36.5	2	18	5.5	3	2	5	2	74
York	13.5	2	20	2	18	2	2	1	60.5
TOTAL	1,789.72	201.45	950.23	190.58	463.65	137.1	526.06	122.07	3,934.13

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

Table C.1.1 - Co-op, Internships and Professional Experience Programs: 2016

Institution	Type of Program	Mandatory/Optional
Alberta	Co-op	Optional
BCIT	Internship	Optional
Calgary	Internship	Optional
Carleton	Co-op	Optional
Concordia	Co-op & Internship	Optional
Conestoga	Co-op	Mandatory
ETS	Co-op	Optional
Guelph	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	Varies
Queen's	Internship	Optional
Regina	Co-op & Internship	Optional
Ryerson	Co-op & Internship	Varies
Saskatchewan	Internship	Optional
SFU	Co-op	Varies
Sherbrooke	Co-op	Optional
Toronto	Internship	Optional
UBC	Co-op	Optional
UBCO	Co-op	Optional
UNB	Co-op	Optional
UQAR	Co-op	Optional
UQAT	Co-op	Optional
UQO	Internship	Mandatory
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

a. This listing of accredited programs includes only engineering programs that lead to a bachelor's degree.
b. Institutions listed have voluntarily requested that specific engineering programs be evaluated by the Accreditation Board. The terminology requested by the institution is shown.
c. A single date which follows the name of a program indicates the year of the first graduating class for which accreditation applies. Accreditation applies to subsequent years and is still enforced.
d. 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.
e. 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-
- »Year One - Common 1980-

BRITISH COLUMBIA, THE UNIVERSITY OF

Vancouver, British Columbia

Faculty of Applied Science

- »Agricultural Engineering 1965-1978
- »Bio-Resource Engineering 1979-2001
- »Chemical and Biological Engineering 2003-
- »Chemical Engineering 1965-
- »Civil Engineering 1965-
- »Computer Engineering 2000-
- »Electrical Engineering 1965-
- »Engineering Physics 1965-
- »Environmental Engineering 2007-
- »Geological Engineering 1965-
- »Integrated Engineering 2003-
- »Materials Engineering 2006-
- »Mechanical Engineering 1965-

NOVA SCOTIA, TECHNICAL UNIVERSITY OF

(see Dalhousie University)

ONTARIO INSTITUTE OF TECHNOLOGY, UNIVERSITY OF

Oshawa, Ontario

Faculty of Engineering and Applied Science

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

Faculty of Energy Systems and Nuclear Science

- »Nuclear Engineering: 2007-

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 des matériaux 1990-2012

»Metallurgical Engineering 1965-1987

»Metals and Materials Engineering 1988-2005

»Mineral Engineering 1965-1979

»Mining and Mineral Process Engineering 1980-2005

»Mining Engineering 2004-

»Year One - Common 1980-

BRITISH COLUMBIA-OKANAGAN, THE UNIVERSITY OF

Kelowna, British Columbia

Faculty of Applied Science

»Civil Engineering 2010-

»Electrical Engineering 2010-

»Mechanical Engineering 2010-

»Year One - Common 2010-

BRITISH COLUMBIA INSTITUE OF TECHNOLOGY

Burnaby, British Columbia

»Civil Engineering 2010-

»Electrical Engineering 2011-

»Mechanical Engineering 2014-

CALGARY, THE UNIVERSITY OF

Calgary, Alberta

Schulich School of Engineering

»Chemical Engineering 1969-

»Civil Engineering 1969-

»Computer Engineering 2002-2016

»Electrical Engineering 1969-

»Geomatics Engineering 1996-

»Manufacturing Engineering 1997-

»Mechanical Engineering 1969-

»Oil and Gas Engineering 2001-

»Software Engineering 2002-

»Surveying Engineering 1982-1997

»Year One - Common 1980-

CARLETON UNIVERSITY

Ottawa, Ontario

Faculty of Engineering and Design

»Aerospace Engineering 1992-

»Architectural Conservation and Sustainability 2015-

»Biomedical and Electrical 2010-

»Biomedical and Mechanical 2012-

»Civil Engineering 1965-

»Communications Engineering 2002-

»Computer Systems Engineering 1984-

»Génie des mines 1991-

»Génie électrique 1965-

»Génie géologique 1965-

»Génie industriel 1973-

»Génie informatique 1989-

»Génie logiciel 2005-

»Génie mécanique 1965-

»Génie métallurgique 1965-1989

»Génie minier 1965-1991

»Génie physique 1965-

»Première année - Tronc commun 1980-

QUÉBEC EN ABITBI-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-

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-

»Electrical Engineering 1965-

»Engineering Physics 2003-

»Environmental Engineering 1996-

»Mechanical Engineering 1965-

»Software Engineering 2003-

»Sustainable & Renewable Energy 2012-

»Year One - Common 1998-

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, 1997-200 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

QUÉBEC À TROIS-RIVIÈRES, UNIVERSITÉ DU

Trois-Rivières, Québec

École d'ingénierie

»Génie chimique 1990-

»Génie électrique 1978-

»Génie industriel 1980-

»Génie mécanique 2000-

»Génie mécanique manufacturier 1987-1999

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-

»Year One - Common 1980-

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

»Year One - Common 1980-

ROYAL MILITARY COLLEGE OF CANADA

Kingston, Ontario

Faculty of Engineering

»Aeronautical Engineering 2009-

»Chemical and Materials Engineering 1992-2001

ÉCOLE DE TECHNOLOGIE SUPÉRIEURE

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

- »Génie de la construction 1993-
- »Génie de la production automatisée 1990-
- »Génie des opérations et de la logistique 2008-
- »Génie des technologies de l'information 2006-
- »Génie électrique 1990-
- »Génie et gestion de la construction 1990-1996
- »Génie logiciel 2004-
- »Génie mécanique 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-
- »Year One - Common 1997-

LAKEHEAD UNIVERSITY

Thunder Bay, Ontario

Faculty of Engineering

- »Chemical Engineering 1974-
- »Civil Engineering 1974-
- »Electrical Engineering 1974-
- »Mechanical Engineering 1974-
- »Software Engineering 2002-
- »Year One - Common 1998-

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-
- »Year One - Common 1980-

LAVAL, UNIVERSITÉ

- »Chemical Engineering 1965-1981, 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-
- »Year One - Common 1980-

RYERSON POLYTECHNICAL INSTITUTE

(see Ryerson University)

- »RPI offered accredited engineering programs in 1992.

RYERSON POLYTECHNICAL 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-
- »Year One - Common 1992-

SASKATCHEWAN, UNIVERSITY OF

Saskatoon, Saskatchewan

College of Engineering

- »Agricultural and Bioresource Engineering 1992-
- »Agricultural Engineering 1965-1992
- »Chemical Engineering 1965-
- »Civil Engineering 1965-
- »Computer Engineering 2009-
- »Electrical Engineering 1965-
- »Engineering Physics 1965-
- »Environmental Engineering 2011-
- »Geological Engineering 1965-

Québec, Québec

- »Génie agroalimentaire 1999-
- »Génie agroenvironnemental 2002-
- »Génie alimentaire 1997-
- »Génie chimique 1965-
- »Génie civil 1965-
- »Génie des eaux 2009-
- »Génie des matériaux et de la métallurgie 1990-
- »Génie des mines et de la minéralurgie 1990-
- »Génie du bois 2002-
- »Génie électrique 1965-
- »Génie géologique 1965-
- »Génie géomatique 2007-
- »Génie industriel 2014-
- »Génie informatique 1993-
- »Génie logiciel 2006-
- »Génie mécanique 1965-
- »Génie métallurgique 1965-1990
- »Génie minier 1965-1990
- »Génie physique 1965-
- »Génie rural 1973-2002
- »Ingénierie/réhabilitation des infrastructures urbaines 1999-
- »Première année - Tronc commun 1980-

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-
- »Year One - Common 1980-

MCGILL UNIVERSITY

Montréal, Québec

- »Agricultural Engineering 1971-2006
- »Chemical Engineering 1965-
- »Civil Engineering 1965-
- »Computer Engineering 1993-
- »Electrical Engineering 1965-
- »General Engineering 2000-
- »Materials Engineering 2005-
- »Geological Engineering (Geophysics) 1975-1999
- »Mechanical Engineering 1965-
- »Mining Engineering 1974-1976
- »Year One - Common 1980-

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: 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 and Mineral Engineering 1991-1998
- »Geological Engineering 1965-1974
- »Geological Engineering and Applied Earth Science 1975-1982
- »Industrial Engineering 1965-
- »Materials Engineering 1996-
- »Mechanical Engineering 1965-
- »Metallurgical Engineering and Materials Science 1986-1995
- »Metallurgy and Materials Science 1965-1985
- »Mineral Engineering 1999-
- »Year One - Common 1999-

VICTORIA, UNIVERSITY OF

»Mechanical Engineering 1965-

»Metallurgical Engineering 1965-2007

»Mining Engineering 1965-

»Software Engineering 2007-

MCMASTER UNIVERSITY

Hamilton, Ontario

Faculty of Engineering

»Ceramic Engineering 1974-1998

»Chemical Engineering 1965-

»Chemical Engineering and Bioengineering 2006-

»Civil Engineering 1989-

»Civil Engineering and Computer Systems 1992-1995

»Civil Engineering and 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-

»Year One - Common 1965-

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

»Year One - Common 1980-

MONCTON, UNIVERSITÉ DE

Moncton, Nouveau-Brunswick

Faculté d’ingénierie

»Génie civil 1972-

»Génie électrique 1998-

»Génie industriel 1975-2009

Victoria, British Columbia

Faculty of Engineering

»Biomedical Engineering 2016-

»Computer Engineering 1988-

»Electrical Engineering 1988-

»Mechanical Engineering 1992-

»Software Engineering 2007-

»Year One - Common 1980-

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 and Biochemical Engineering 1972-2006

»Chemical Engineering 1965-1971, 2007-

»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-

»Year One - Common 1980-

WINDSOR, UNIVERSITY OF

Windsor, Ontario

Faculty of Engineering

»Chemical Engineering 1965-1990

»Civil Engineering 1965-

»Génie mécanique 1990-

»Première année - Tronc commun 1980-

NEW BRUNSWICK, UNIVERSITY OF

Fredericton, New Brunswick

Faculty of Computer Science and Faculty of Engineering

»Chemical Engineering 1965-

»Civil Engineering 1965-

»Computer Engineering 2001-

»Electrical Engineering 1965-

»Engineering Entrance 1980-

»Forest Engineering 1972-

»Geological Engineering 1984-

»Geomatics Engineering 1999-

»Mechanical Engineering 1965-

»Software Engineering 2006-

»Surveying Engineering 1972-1999

»Year One - Common 1980-

NORTHERN BRITISH COLUMBIA, UNIVERSITY OF

Prince George, British Columbia

College of Science and Management

»Environmental Engineering

»(jointly with British Columbia): 2007-

NOVA SCOTIA TECHNICAL COLLEGE

(see Dalhousie University)

NSTC offered accredited engineering programs from 1965 to 1980.

»Electrical Engineering 1965-

»Engineering Materials 1974-1991

»Environmental Engineering 1991-

»Geological Engineering 1972-1989

»Industrial Engineering 1974-

»Mechanical Engineering 1965-

»Year One - Common 1980-

YORK UNIVERSITY

Toronto, Ontario

Faculty of Science and Engineering

»Computer Engineering 2007-

»Electrical Engineering 2007-

»Geomatics Engineering 2007-

»Software Engineering 2016-

»Space Engineering 2007-

Appendix C

Canadian discipline categories as used in this report

This section provides a comprehensive listing of program titles, as provided by the post-secondary, 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: *Biosystems*

Program

- »Agricultural and Bioresource Engineering
- »Bioengineering
- »Biological Engineering
- »Biomedical and Mechanical
- »Biomedical Engineering
- »Biomedical Mechanical Engineering
- »Biosystems Engineering
- »Chemical and Biological Engineering
- »Forest Engineering
- »Génie agroenvironnemental
- »Génie alimentaire
- »Génie biomédical

Discipline: *Civil*

Program

- »Architectural Conservation and Sustainability
- »Building Engineering
- »Civil & Environmental Engineering
- »Civil and Environmental Engineering
- »Civil Engineering
- »Génie civil
- »Génie de la construction
- »Infrastructure Protection & International Security
- »Safety and Risk Engineering

Discipline: *Electrical*

Program

- »Biomedical and Electrical
- »Communications Engineering
- »Electrical & Biomedical Engineering
- »Electrical and Computer Engineering
- »Electrical Engineering
- »Electrical/Computer Engineering
- »Electronic Business Technologies
- »Energy Systems Engineering
- »Génie des opérations et de la logistique
- »Génie des technologies de l'information

Discipline: *Chemical*

Program

- »Chemical & Petroleum Engineering
- »Chemical and Biochemical Engineering
- »Chemical Engineering
- »Chemical Engineering and Bioengineering
- »Génie biotechnologique
- »Génie chimique
- »Nanotechnology Engineering

Discipline: *Computer*

Program

- »Computational Science and Engineering
- »Computer Engineering
- »Computer Networks
- »Computer Science
- »Computer Systems Engineering
- »Electronic Systems Engineering
- »Engineering Systems and Computing
- »Génie informatique
- »Human Computer Interaction

Discipline: *Engineering Physics*

Program

- »Engineering Chemistry
- »Engineering Mathematics
- »Engineering Physics
- »Engineering Science
- »Génie physique
- »Mathematics and Engineering
- »Mathématiques
- »Mathématiques ingénieur

Discipline: *Environmental*

Program

- »Sciences de la Terre et de l'atmosphère
- »Clean Energy Engineering
- »Environmental Engineering
- »Environmental Systems Engineering
- »Génie des eaux

»Génie électrique
»Génie électromécanique
»Génie énergétique
»Information systems security
»Quality Systems Engineering
»Sustainable Energy Engineering

Discipline: *Geological*

Program

»Génie géologique
»Geological Engineering

Discipline: *Materials or Metallurgical*

Program

»Génie des matériaux et de la métallurgie
»Génie métallurgique
»Materials Engineering
»Materials Science
»Materials Science & Engineering
»Metallurgical Engineering and Materials Science
»Mining/Materials Engineering

Discipline: *Other*

Program

»Aeronautical Engineering
»Aerospace Engineering
»Centre for Business, Entrepreneurship & Technology
»Core Program
»Doctorat en ingénierie
»Doctorat en ressources minérales
»Engineering and Public Policy
»Engineering Design
»Engineering Entrepreneurship & Innovation
»Engineering Management
»General Engineering
»Génie
»Génie aérospatial
»Génie des systèmes électromécaniques
»Génie du bois
»Génie géomatique
»Génie nucléaire
»Génie unifié
»Geomatics Engineering
»Green Process Engineering
»Information and Systems Engineering
»Ingénierie
»Integrated Engineering
»Maîtrise en génie de l'environnement
»Maîtrise en Sciences de la Terre
»Sustainable & Renewable Energy
»Water Resources Engineering

Discipline: *Industrial or Manufacturing*

Program

»Advanced Design and Manufacturing Institute
»Génie de la production automatisée
»Génie industriel
»Industrial Engineering
»Industrial Systems Engineering
»Manufacturing Engineering
»Mechanical Manufacturing Engineering

Discipline: *Mechanical*

Program

»Automotive Engineering
»Energy Engineering
»Génie mécanique
»Mechanical & Manufacturing Engineering
»Mechanical & Materials Engineering
»Mechanical & Mechatronics Engineering
»Mechanical Engineering
»Mechanical Systems Engineering
»Mechanical/Industrial Engineering
»Mechatronic Systems Engineering
»Mechatronics Engineering
»Space Engineering

Discipline: *Mining or Mineral*

Program

»Génie des mines
»Génie des mines et de la minéralurgie
»Génie minéral
»Mineral and Mining Exploration Engineering
»Mineral Engineering
»Mineral Resources Engineering
»Mining Engineering
»Natural Resources Engineering

Discipline: *Software*

Program

»Génie logiciel
»Information Technology
»Software Engineering
»Software Engineering & Virtual Systems Design
»Software Systems Engineering

»Internetworking
»Maîtrise en ingénierie
»Maîtrise en ingénierie (gestion)
»Management Engineering
»Management Sciences
»Masters of Engineering Degree
»Nuclear Engineering
»Ocean and Naval Architectural Engineering
»Oil and Gas Engineering
»Petroleum Engineering
»Petroleum Systems Engineering
»Process Engineering
»Process Systems Engineering
»Sciences appliquées
»Systems Design Engineering
»Systems Science
»TIM (Systems)
»UNENE

Year One/Two:

»Common First and Second Year

Common Year:

»Undeclared Major Engineering
»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 study 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 education institutions in Canada that operate under this model. Under the Accreditation Board'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