Ph.D. Completion Rates in the STEM disciplines

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1.5 hrs

School of Graduate Studies

Background

Medium size, research intensive university

- Graduate students (n= 3,970) represent 19% of total student population; 67% enrolled at the Master's level
- 27 programs in STEM offer MSc, MASc, MEng, MES and PhD degrees
- 40% of graduate student population is in STEM 33% of all Masters 56% of all PhDs

Ph.D. Enrolments

- Engineering 19%
- Natural/Physical Science 20%
- Life Sciences 26%
- Other 13%

School of Graduate Studies

Life Science

- Biology
- Chemistry
- Computing
- Environmental Science
- Geological Science
- Geography
- Kinesiology
- Mathematics
- Physics

Applied Science

- Anatomy & Cell Biology
- Biochemistry
- Epidemiology
- Microbiology & Immunology
- Neuroscience
- Pathology & Molecular Medicine
- Pharmacology & Toxicology
- Rehabilitation Science

Natural and physical science

- Chemical Engineering
- Civil Engineering
- Electrical & Computing Engineering
- Engineering Chemistry
- Engineering Physics
- Geological Engineering
- Geological Engineering
- Mechanical & Materials Engineering
- Mining Engineering
- Mathematics & Engineering

Queen's is here"
Admission to a PhD program

- Masters degree
- In exceptional circumstances, direct entry from a four year honours undergraduate degree

Promotion to PhD prior to completion of Masters

- Excellent research potential
- Demonstrated academic excellence

20.6% of Masters students in STEM are promoted

- 43.0% in Life Science
- 21.2% in Natural/Physical Science
- 4.1% in Engineering and Applied Science

8 year status by entry to PhD

Promoted  NSC  Continuing  Withdrawal

Promoted  NSC  Continuing  Withdrawal

Promoted  NSC  Continuing  Withdrawal

Promoted  NSC  Continuing  Withdrawal
Degree completion at 8 years

Drivers of current practices
- Government assisted universities
  - Provincial funds for 2 years of Masters program and 4 years of PhD
- Federal/Provincial scholarship support
  - Eligibility requirements
- University funding practices
  - Minimum funding guarantees
### Outcomes post-Ph.D. degree

<table>
<thead>
<tr>
<th>Discipline Cluster</th>
<th>Postdoc</th>
<th>Industry</th>
<th>Government</th>
<th>Professional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Sciences</td>
<td>64.8%</td>
<td>7.4%</td>
<td>12.8%</td>
<td>14.8%</td>
</tr>
<tr>
<td>Natural &amp; Physical Sciences</td>
<td>59.5%</td>
<td>17.7%</td>
<td>13.9%</td>
<td>8.8%</td>
</tr>
<tr>
<td>Applied Science</td>
<td>53.9%</td>
<td>19.7%</td>
<td>14.5%</td>
<td>11.8%</td>
</tr>
<tr>
<td>Humanities/SS</td>
<td>56.1%</td>
<td>4.8%</td>
<td>4.8%</td>
<td>34.1%</td>
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</tbody>
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