Master’s Education in the STEM disciplines

Brenda Brouwer, Ph.D.
Associate Vice-Principal and Dean
School of Graduate Studies
School of Graduate Studies

Queen’s University
Kingston, Ontario
Background

Medium size, research intensive university

- Graduate students (n= 3,600) represent 17% of total student population at Queen’s; 61% at Master’s level
- 27 programs in STEM offer MSc, MASc, MEng, MES and PhD degrees
- 50.4% of graduate student population is in STEM:
  - 47% Master’s level
  - 56% PhD level
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Life Science

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

Natural and physical science

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

Engineering

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

* = offer 1 and 2 yr programs
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Enrolment trends

Master's 2009 enrolment

<table>
<thead>
<tr>
<th>Category</th>
<th>Male Dom</th>
<th>Male Int</th>
<th>Female Dom</th>
<th>Female Int</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td></td>
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<tr>
<td>Natural/Phys Sci</td>
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<tr>
<td>Life Sci</td>
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<tr>
<td>Other</td>
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</tbody>
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Percent enrolment

0 20 40 60 80 100
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Degree completion - 2004 cohort data

STEM

Other

Terms

Percent

Complete   continuing   promoted   withdrew

5.5%

5.6%
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Engineering

Natural & Physical Sci

Life Sci

Percent

Terms

- Complete
- continuing
- promoted
- withdrew

3.6%
5.3%
7.4%
Completion Rates (5 yr)
Outcomes post-Master’s degree

<table>
<thead>
<tr>
<th>Discipline Cluster</th>
<th>PhD</th>
<th>Industry</th>
<th>Government</th>
<th>Professional</th>
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</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>39%</td>
<td>21%</td>
<td>4%</td>
<td>33%</td>
</tr>
<tr>
<td>Natural &amp; Physical Sciences</td>
<td>43%</td>
<td>9%</td>
<td>2%</td>
<td>35%</td>
</tr>
<tr>
<td>Life Sciences</td>
<td>47%</td>
<td>6%</td>
<td>9%</td>
<td>36%</td>
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Questions?