

# **Strategic Mandate Agreement (2014-17)**

**Between:**

**The Ministry of Training, Colleges and Universities**

**&**

**McMaster University**

## **ONTARIO'S VISION FOR POSTSECONDARY EDUCATION**

Ontario's colleges and universities will drive creativity, innovation, knowledge, and community engagement through teaching and research. They will put students first by providing the best possible learning experience for all qualified learners in an affordable and financially sustainable way, ensuring high quality and globally competitive outcomes for students and Ontario's creative economy.

## **MCMASTER UNIVERSITY'S VISION/MANDATE**

### **Vision Statement**

To achieve international distinction for creativity, innovation, and excellence.

### **Mission**

"At McMaster, our purpose is the discovery, communication, and preservation of knowledge. In our teaching, research, and scholarship, we are committed to creativity, innovation, and excellence. We value integrity, quality, inclusiveness, and teamwork in everything we do. We inspire critical thinking, personal growth, and a passion for lifelong learning. We serve the social, cultural, and economic needs of our community and our society."

## **PREAMBLE**

This Strategic Mandate Agreement between the Ministry of Training, Colleges and Universities (the Ministry) and McMaster University outlines the role the University currently performs in the postsecondary education system and how it will build on its current strengths to achieve its vision and help drive system-wide objectives articulated by the Ministry's Differentiation Policy Framework.

The Strategic Mandate Agreement (SMA):

- Identifies the University's existing institutional strengths;
- Supports the current vision, mission, and mandate of the University within the context of the University's governing legislation and outlines how the University's priorities align with Ontario's vision and Differentiation Policy Framework; and
- Informs Ministry decision making through greater alignment of Ministry policies and processes to further support and guide the University's areas of strength.

The term of the SMA is from April 1, 2014, to March 31, 2017. The SMA proposal submitted by the University to the Ministry has been used to inform the SMA and is appended to the agreement.

The Ministry acknowledges the University's autonomy with respect to its academic and internal resource allocation decisions, and the University acknowledges the role of the Ministry as the Province's steward of Ontario's postsecondary education system.

The agreement may be amended in the event of substantive policy or program changes that would significantly affect commitments made in the SMA. Any such amendment would be mutually agreed to, dated, and signed by both signatories.

## **MCMASTER UNIVERSITY'S KEY AREAS OF DIFFERENTIATION**

McMaster is a research-focused student-centred university with a unique pedagogical approach embedded in a research-intensive setting. McMaster's research strengths are diverse and include: health sciences, the broad determinants of health, engineering, life sciences, digital information and media, business and economics, history, society and culture, policy, ethics, and sustainability. McMaster's signature pedagogies include problem-based learning and inquiry, and its distinctively collaborative culture has fostered strong interdisciplinary programs and partnerships.

## **ALIGNMENT WITH THE DIFFERENTIATION POLICY FRAMEWORK**

The following outlines areas of strength agreed upon by the University and the Ministry, and the alignment of these areas of strength with the Ministry's Differentiation Policy Framework.

### **1. JOBS, INNOVATION, AND ECONOMIC DEVELOPMENT**

This component highlights institutions' collaborative work with employers, community partners, and regions, or at a global level, to establish their role in fostering social and economic development, and serving the needs of the economy and labour market.

#### **1.1 Areas of Institutional Strength**

McMaster is a hub of research and innovation, generating discoveries that have a high societal impact, including:

- McMaster Automotive Resource Centre (MARC) brings together private and public sectors to develop hybrid vehicle technology.
- Biomedical Discovery and Commercialization Program provides opportunities for entrepreneurial scientists.
- Nuclear reactor on campus supports education, research, and commercialization initiatives. McMaster is one of only a few universities world-wide to have a nuclear reactor on campus.
- McMaster has almost 350 active licenses, which is the highest number of any Canadian institution, generating approximately \$4.4M annually (2012).

McMaster participates in several public-private partnerships, sharing ideas, resources, and facilities to support regional economic development:

- McMaster’s partnership with Mohawk College, which offers programs that emphasize the connection between fundamental knowledge and its application, directly benefits student employment.
- McMaster Innovation Park supports business start-ups, helping to generate 120 student led start-ups since 2010.
- Graduates from McMaster are key to Hamilton’s economic vitality including: arts and humanities graduates in the creative economy, engineering and business graduates in advanced manufacturing, health sciences and social sciences graduates in the health and wellness sector, and science graduates in water resources, to name just a few.

In 2012-13, 89% of McMaster graduates were employed six months after graduation and 92% were employed after two years.

## 1.2 Additional Comments

### Institutional Strategies

McMaster is launching a Centre for Student Entrepreneurship to build on the existing entrepreneurial environment and activities in commercialization. It will bring together student-led start-up companies, directed facilities, support mechanisms, and industry partners in a common space that will focus on collaboration, interaction, and start-up incubation.

## 1.3 Metrics

Institutional Metrics	System-Wide Metrics <sup>1</sup>
<ul style="list-style-type: none"> <li>• Number of active licenses</li> </ul>	<ul style="list-style-type: none"> <li>• Graduate employment rates</li> <li>• Number of graduates employed full-time in a related job</li> </ul>

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<sup>1</sup> Additional system-wide metrics focused on applied research, commercialization, entrepreneurial activity, and community impact will be developed in consultation with the sector.

## 2. TEACHING AND LEARNING

This component will capture institutional strength in program delivery methods that expand learning options for students, and improve the learning experience and career preparedness. This may include, but is not limited to, experiential learning, online learning, entrepreneurial learning, work integrated learning, and international exchange opportunities.

### 2.1 Areas of Institutional Strength

McMaster demonstrates a strong link between research and education through its vision as a research-focused student-centred institution. McMaster’s key areas of activity include:

- Pioneering an inquiry- and problem-based approach to learning in the Faculty of Health Sciences, which has been adopted worldwide.
- The redesign of high-enrolment courses into blended formats to incorporate technology-enabled learning.
- The McMaster Institute for Innovation and Excellence in Teaching and Learning, which facilitates the development and use of advanced pedagogies, and engages students to serve as apprentices and collaborators to improve the student experience.
- The application of signature pedagogies to unique programs with a strong interdisciplinary flavour, including: Bachelor of Health Sciences, Arts and Science, Integrated Science, Engineering and Management.
- Housing Canada’s Society for Teaching and Learning in Higher Education (STLHE) since its inception.
- 15 McMaster faculty have been selected as 3M National Teaching Fellows.

### 2.2 Metrics

Institutional Metrics	System-Wide Metrics
<ul style="list-style-type: none"><li>• Percentage of courses that include experiential learning opportunities</li><li>• Percentage of courses that involve extensive use of technology-enabled learning, including online delivery, blended learning or flipped classroom approaches, and learning portfolios</li></ul>	<ul style="list-style-type: none"><li>• Student Satisfaction Survey results</li><li>• Graduation rates</li><li>• Retention rates</li><li>• Number of students enrolled in a co-op program at institution</li><li>• Number of online course registrants, programs, and courses at institution</li></ul>

### 3. STUDENT POPULATION

This component recognizes the unique institutional missions that improve access, retention, and success for underrepresented groups (Aboriginal, first generation, students with disabilities) and francophones. This component also highlights other important student groups that institutions serve that link to their institutional strength. This may include, but is not limited to, international students, mature students, or indirect entrants.

#### 3.1 Areas of Institutional Strength

McMaster supports access to students from underrepresented groups, with a specific focus on educating Indigenous students and Crown Wards. Examples of such supports include:

##### **Indigenous Students:**

- Strong partnership with Six Nations Polytechnic (SNP), which enables McMaster to assist students seeking university degrees to transition to university.
- Development of a new Honours program in Indigenous Studies.
- Support of an Indigenous Knowledge Centre that is becoming a regional hub for research.
- The Indigenous Education Council advances Indigenous education at McMaster.
- Focus on hiring Indigenous tenure-track faculty.
- Leading the development of an Aboriginal health curriculum used at all Canadian medical schools.
- The Medical Doctor program has graduated 58 Indigenous students in the last decade, the highest in the country.
- Support for Indigenous students applying for and attending health professional programs through the Aboriginal Students Health Sciences Office.

##### **Crown Wards and other at risk groups:**

- McMaster has worked with community partners to build pathways for Crown Wards.
  - In 2013, 265 Crown Wards accessed this program, compared with just 35 in 2009.

##### **First Generation Students:**

- In 2012-13, 17% of McMaster students were first generation learners.

McMaster offers bursaries and special outreach programs that support the participation of at risk youth. The McMaster Venture Camps program provides engineering and science camps and workshops to primary and secondary school students.

### 3.2 Additional Comments

#### Institutional Strategies

Opening of an Indigenous Student Centre in 2015.

### 3.3 Metrics

Institutional Metrics	System-Wide Metrics
	<ul style="list-style-type: none"><li>• Number and proportion of Aboriginal, first generation, students with disabilities, and francophone students at an institution</li><li>• Number and proportion of international students enrolled in Ontario (as reported in annual institutional enrolment reporting)</li><li>• Proportion of an institution's enrolment that receives OSAP</li></ul>

## **4. RESEARCH AND GRADUATE EDUCATION**

This component identifies the breadth and depth of institutional research activity (both basic and applied), and will identify institutional research strengths from niche to comprehensive research intensity.

### **4.1 Areas of Institutional Strength**

McMaster is one of the most research-intensive institutions in the province.

McMaster's areas of research strength include: health sciences, the broad determinants of health, engineering, life sciences, digital information and media, business and economics, history, society and culture, policy, ethics, and sustainability. Key focus areas include, but are not limited to, infectious disease research, aging, and advanced/additive manufacturing.

McMaster's strengths and activities in these areas are demonstrated by the following:

- Since 2005, consistently ranking second in the province in research-intensity.
- One of the two Ontario universities annually ranked in the top 100 research universities globally, by both the Times Higher Education World University Rankings and the Academic Ranking of World Universities (formerly Shanghai Jiaotong).
- Has the highest average Tri-Council funding allocation per principal investigator across Ontario.
- 45 Vanier Canada Graduate Scholarships awarded to McMaster students, making it second in Ontario for total number of awards and first in Ontario in terms of awards per student.
- McMaster raised more than \$500M to support research in the last decade from sources other than Tri-Council.
- McMaster is home to 70 Canada Research Chairs (CRCs), 97 endowed chairs, 12 endowed professorships, one Canada Excellence Research Chair (CERC), and seven Natural Sciences and Engineering Research Council of Canada (NSERC) industrial research chairs.
- McMaster's core research community is comprised of highly talented individuals from around the world: 1,300 full-time faculty, 4,000 graduate students, 300 post-doctoral fellows, and hundreds of skilled technicians and research associates. Many undergraduate students work with researchers on leading-edge projects, gaining critical hands-on experience and problem solving skills.
- More than 100 research centres and institutes.
- McMaster's number of graduate student applications from BIU-eligible students more than doubled (from about 2,850 to 5,800) between 2007-08 and 2012-13.

## 4.2 Metrics

Institutional Metrics	System-Wide Metrics
<ul style="list-style-type: none"> <li>• Level of industrial funding for research</li> </ul>	<p><b>Research Capacity</b></p> <ul style="list-style-type: none"> <li>• Total sponsored research</li> <li>• Number of research chairs</li> <li>• Number of graduate degrees awarded</li> <li>• Number of graduate awards/scholarships</li> </ul> <p><b>Research Focus</b></p> <ul style="list-style-type: none"> <li>• Graduate degrees awarded to undergraduate degrees awarded</li> <li>• Graduate to undergraduate ratio</li> <li>• PhD degrees awarded to undergraduate degrees awarded</li> </ul> <p><b>Research Impact</b></p> <ul style="list-style-type: none"> <li>• Normalized Tri-Council funding (total and per full-time faculty)</li> <li>• Number of publications (total and per full-time faculty)</li> <li>• Number of citations (total and per full-time faculty)</li> <li>• Citation impact (normalized average citation per paper)</li> </ul> <p><b>International Competitiveness</b></p> <ul style="list-style-type: none"> <li>• Ratio of international to domestic graduates [used by Times Higher Education Rankings]</li> <li>• Aggregate of international global rankings</li> </ul>

## **5. PROGRAM OFFERINGS**

This component articulates the breadth of programming, enrolment, and credentials offered, along with program areas of institutional strength/specialization, including any vocationally oriented mandates. This component also recognizes institutions that provide bilingual and/or French-language programming for students.

### **5.1 Areas of Institutional Strength**

Current areas of strength include:

1. Medical Education and Research
2. Health and Society
3. Engineering and Sustainability
4. Science and Discovery
5. Digital Economy
6. Materials and Manufacturing
7. Business and Economics
8. Policy and Ethics in a Globalized World
9. Human Behaviour, Culture, and Society
10. The Arts and Creative Expression

Program areas for growth include:

1. Health Sciences and the broad determinants of health
2. Fostering robust societies
3. Business and Economics
4. Science and Engineering
5. Communications and Culture

### **5.2 Additional Comments**

The Ministry notes that a large number of new engineering degree programs are proposed province-wide, which will have an impact on the Ministry's review of new engineering program proposals.

### 5.3 Metrics

Institutional Metrics	System-Wide Metrics
	<ul style="list-style-type: none"><li>• Institution-specific and provincial Key Performance Indicators, including employment rate after two years, percentage of students completing the degree, and OSAP default rates for each area of strength</li><li>• Program enrolment</li></ul>

## 6. INSTITUTIONAL COLLABORATION TO SUPPORT STUDENT MOBILITY

This component profiles partnerships between institutions that ensure students have access to a continuum of learning opportunities in a coordinated system. This may include, but is not limited to, credit transfer pathways and collaborative or joint programs between or within sectors.

### 6.1 Areas of Institutional Strength

McMaster's areas of strength in this component include:

- In 2012-13, McMaster had 1,139 credit transfer students from 20 universities and 20 colleges.
- McMaster participates in the University Credit Transfer Consortium to facilitate credit transfer for students.
- McMaster has a strong partnership with Mohawk College:
  - Almost every Faculty at McMaster has an active partnership program with Mohawk.
  - In 2013-14, more than 2,800 students were enrolled in one of these collaborative programs.
- McMaster also has agreements with international partners that enable students at all levels to gain experience abroad.
- McMaster is the only university in Canada to serve as host to the United Nations University through the Institute for Water, Environment and Health (UNU-INWEH).

### 6.2 Additional Comments

Building on the University Credit Transfer Consortium and existing partnerships with colleges, the Ministry encourages McMaster University to continue to develop partnerships with other Ontario universities and colleges to facilitate student mobility.

### 6.3 Metrics

Institutional Metrics	System-Wide Metrics
<ul style="list-style-type: none"> <li>Number of jointly offered college/university programs</li> </ul>	<ul style="list-style-type: none"> <li>Number of college and university pathways and/or articulation agreements (college-college, college-university, university-college)</li> <li>Number of transfer applicants and registrants</li> <li>Number of college graduates enrolled in university programs</li> </ul>

## ASPIRATIONS

The Ministry recognizes the importance of supporting institutions to evolve and acknowledges the strategic aspirations of its postsecondary education institutions; the SMA is not intended to capture all decisions and issues in the postsecondary education system, as many will be addressed through the Ministry’s policies and standard processes. The Ministry will not be approving any requests for capital funding or new program approvals, for example, through the SMA process.

### Institutional Aspirations

McMaster’s classroom utilization is at 117% of nominal capacity. To achieve targeted growth, the University will continue to explore creative approaches to teaching and learning. However, McMaster notes that some increase in physical capacity will be required.

## ENROLMENT GROWTH

The strategic enrolment and planning exercise is in the context of a public commitment in the 2011 Budget to increase postsecondary education enrolment by an additional 60,000 students over 2010-11 levels. This government has demonstrated a longstanding commitment to ensuring access to postsecondary education for all qualified students.

### Baseline Projected Eligible Full-Time Headcounts

	2014-15	2015-16	2016-17
<b>Undergraduate</b>	20,850	20,920	21,010

McMaster University’s planned enrolment forecast as expressed in this baseline eligible enrolment scenario is considered reasonable and in line with Ministry expectations, based on the current and projected demographic and fiscal environments.

## GRADUATE ALLOCATION

The Province committed to allocate an additional 6,000 graduate spaces in the 2011 Budget. The allocation of the balance of the 6,000 graduate spaces is informed by institutional graduate plans, metrics identified in the differentiation framework, and government priorities. Based on these considerations, the allocation for McMaster University is provided below.

	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>
<b>Master</b>	1,912.90	2,002.66	2,069.08
<b>PhD</b>	955.35	998.44	1,014.67
<b>Total</b>	<b>2,868.25</b>	<b>3,001.10</b>	<b>3,083.75</b>

The Ministry agrees that future consideration (in the next round of SMAs) will be given for the return of PhD spaces reduced in the 2014-15 allocation, providing that McMaster is successful in achieving new growth projections as contained in this agreement, pending demonstrated institutional need, and subject to provincial funding approval. The Ministry also agrees that McMaster will be given consideration for further space conversions, depending on targeted growth.

**Note:** For a detailed breakdown of graduate space allocations, see Appendix.

## FINANCIAL SUSTAINABILITY

The Ministry and the University recognize that financial sustainability and accountability are critical to achieving institutional mandates and realizing Ontario's vision for the postsecondary education system. To this end, it is agreed that:

- It is the responsibility of the governing board and Senior Administrators of the University to identify, track, and address financial pressures and sustainability issues. At the same time, the Ministry has a financial stewardship role. The Ministry and the University agree to work collaboratively to achieve the common goal of financial sustainability and to ensure that Ontarians have access to a full range of affordable, high-quality postsecondary education options, now and in the future; and
- The University remains accountable to the Ministry with respect to effective and efficient use of provincial government resources and student resources covered by policy directives of the Ministry, or decisions impacting upon these, to maximize the value and impact of investments made in the postsecondary education system.

The Ministry commits to engage with the sector in spring 2014 to finalize the financial sustainability metrics to be tracked through the course of the SMAs, building on metrics already identified during discussions that took place in the fall of 2013.

## MINISTRY/GOVERNMENT COMMITMENTS

Over time, the Ministry commits to align many of its policy, process, and funding levers with the Differentiation Policy Framework and SMAs in order to support the strengths of institutions and implement differentiation. To this end, the Ministry will:

- Engage with both the college and university sectors around potential changes to the funding formula, beginning with the university sector in 2014-15;
- Update the college and university program funding approval process to improve transparency and align with institutional strengths as outlined in the SMAs;
- Streamline reporting requirements across Ministry business lines with the goals of (1) creating greater consistency of reporting requirements across separate initiatives, (2) increasing automation of reporting processes, and (3) reducing the amount of data required from institutions without compromising accountability. In the interim, the Multi-Year Accountability Report Backs will be adjusted and used as the annual reporting mechanism for metrics set out in the SMAs;
- Consult on the definition, development, and utilization of metrics;
- Undertake a review of Ontario's credential options; and
- Continue the work of the Nursing Tripartite Committee.

The Ministry and the University are committed to continuing to work together to:

- Support student access, quality, and success;
- Drive creativity, innovation, knowledge, and community engagement through teaching and research;
- Increase the competitiveness of Ontario's postsecondary education system;
- Focus the strengths of Ontario's institutions; and
- Maintain a financially sustainable postsecondary education system.

SIGNED for and on behalf of the Ministry  
of Training, Colleges and Universities by:

*ORIGINAL SIGNED BY*

Deborah Newman  
Deputy Minister

April 15, 2014

Date

SIGNED for and on behalf of  
McMaster University by:

*ORIGINAL SIGNED BY*

Dr. Patrick Deane  
Executive Head

April 25, 2014

Date

## APPENDIX

### McMaster University - Summary of Graduate Space Allocations to 2016-17, FTEs

	Master's	PhD	Total
<i>2013-14 Graduate Space Target</i>	1,796.94	1,065.84	2,862.78
Adjustments to Graduate Targets (pre 2015-16)	115.96	-110.49	5.47
<b>Graduate Allocation Envelopes</b>			
General Allocation Envelope	106.18	59.32	165.50
Priorities Envelope	50.00	-	50.00
<b>Graduate Spaces Allocated to 2016-17, over 2013-14</b>	<b>272.14</b>	<b>-51.17</b>	<b>220.97</b>
<i>2016-17 Graduate Space Target</i>	<i>2,069.08</i>	<i>1,014.67</i>	<i>3,083.75</i>

#### Notes:

1. Adjustments to Graduate Targets (pre 2015-16) include: (i) 2013-14 approved fungibility requests; (ii) 2014-15 final Master's allocations; (iii) resets of graduate targets, if any; and, (iv) other Ministry commitments, including further conversions.
2. General Allocation Envelope includes all metrics-based space allocations for 2015-16 and 2016-17.
3. Priorities Envelope includes: (i) Ministry and institutional priorities; and, (ii) approved spaces for identified niche programs.
  - a. The spaces allocated from the Priorities Envelope are provided to McMaster University to support their Master's of Biomedical Discovery and Commercialization, Master's in Public Health, and their Global Health Master's Program.

The 50 priorities spaces are allocated with 15 spaces allocated in 2015-16 and 35 spaces in 2016-17.