

## 2021 National Taiwan University Performance Ranking of Scientific Papers for World Universities

### SUMMARY

1. In 2021, McMaster University ranked 113<sup>th</sup> globally.
2. McMaster remained the second highest ranked university in Ontario and increased to the fifth highest ranked university in Canada.

### BACKGROUND

#### Overview – NTU Ranking

The National Taiwan University (NTU) Ranking is an annual ranking of the bibliometric performance of the top 500 universities worldwide.

To assess and rank each university's bibliometric output, NTU uses the following nine weighted measures grouped into three pillar areas:

#### 1. Research Productivity (25%)

- Number of articles last 11 years (10%)
- Number of articles current year (15%)

#### 2. Research Impact (35%)

- Number of citations last 11 years (15%)
- Number of citations last two years (10%)
- Avg. number of citations last 11 years (10%)

#### 3. Research Excellence (40%)

- H-Index last two years (10%)
- Number of highly cited papers last 11 years (15%)
- Number of articles in high impact journals, current year (15%)

Scores are calculated for all institutions then normalized into a final score using a T Score.

#### NTU Ranking by Field

NTU applies the same method to produce rankings of the top universities in six fields: Agriculture; Clinical Medicine; Engineering; Life Sciences; Natural Sciences; and Social Sciences.

### CURRENT STATUS

In October 2021, NTU released its annual Performance Ranking of Scientific Papers for World Universities. In total, 18 Canadian universities were ranked among the world's top 500 and 8 of them were ranked within the top 200 institutions.

McMaster ranked 113<sup>th</sup> overall, an increase of 7 positions compared to 2020 where it ranked 120<sup>th</sup> overall. Additionally, the University surpassed the University of Montréal (118) for 5<sup>th</sup> place in Canada, trailing only Toronto (3), UBC (35), McGill (49) and Alberta (91).

Table 1 shows the eight Canadian universities that were ranked among the world's top 200 institutions in 2021, and for comparison their 2020 information. In 2021, the top ranked institution (Harvard) scored 97.8, a fall from its 2020 score of 98.6. Since the top ranked institution saw its normalized score drop, due to the ranking methodology, it is expected that scores for most institutions will also fall. This is evident in Table 1 where all 8 Canadian institutions saw their scores fall regardless of changes to world rank. Out of the top 8 Canadian institutions, McMaster experienced the smallest decline in score (0.6 points).

Table 1: NTU - Canadian Universities Ranked in the Top 200, 2020 vs. 2021

	2020			2021			Δ		
	Total Score	Rank		Total Score	Rank		Total Score	Rank	
		Can.	World		Can.	World		Can.	World
Toronto	62.2	1	3	61.2	1	3	-1.0	N/C	N/C
UBC	49.1	2	33	48.3	2	35	-0.8	N/C	-2
McGill	46.7	3	49	45.7	3	49	-1.0	N/C	N/C
Alberta	42.8	4	92	41.8	4	91	-1.0	N/C	1
<b>McMaster</b>	<b>40.8</b>	<b>6</b>	<b>120</b>	<b>40.2</b>	<b>5</b>	<b>113</b>	<b>-0.6</b>	<b>1</b>	<b>7</b>
Montréal	41.1	5	115	39.9	6	118	-1.2	-1	-3
Calgary	39.4	7	147	38.7	7	139	-0.8	N/C	8
Ottawa	39.0	8	156	38.0	8	156	-1.0	N/C	N/C

N/C = No Change, N/R = Not Rated

#### NTU Ranking by Field

In 2021, McMaster was ranked in the top 100 in two subject areas. In Clinical Medicine, McMaster ranked 46<sup>th</sup> overall and 4<sup>th</sup> in Canada. In Social Sciences, the University ranked 59<sup>th</sup> overall 4<sup>th</sup> in Canada (see Table 2). Globally, McMaster saw its rank increase in Clinical Medicine (increase of 5 positions) and Life Sciences (increase of 18 positions).

Table 2: McMaster's NTU Rankings by Field, 2020 vs. 2021

Field	2020 Rank		2021 Rank		Δ	
	World	Canada	World	Canada	World	Canada
Agriculture	301-350	18	401-450	21	Decrease	-3
Clinical Medicine	51	4	46	4	5	N/C
Engineering	269	9	287	8	-18	1
Life Sciences	174	7	156	7	18	N/C
Natural Sciences	401-450	14	451-500	15	Decrease	-1
Social Sciences	59	4	59	4	N/C	N/C

N/C = No Change, N/R = Not Rated

**CONSIDERATIONS**

**1. McMaster does not submit data for the NTU Ranking**

Unlike the Times Higher Education's and QS's World University Rankings, universities do not submit data for the NTU ranking. For its annual ranking, NTU obtains information from Clarivate's Essential Science Indicators (ESI) and Web of Science Core Collection.