

2021 ShanghaiRanking's Global Ranking of Academic Subjects

Summary

On May 26, 2021, ShanghaiRanking Consultancy, the company that publishes the Academic Ranking of World Universities (ARWU, aka the Shanghai Ranking), released the 2021 Global Ranking of Academic Subjects (GRAS). Overall, more than 4,000 universities were ranked and of those, more than 1,800 universities from 93 countries were published in this release across 54 subjects in five broad discipline areas. The University of Saskatchewan (USask) was ranked in 28 of these subject areas, including four placements within the top 100: 15 in Water Resources, 51-75 in each of Environmental Science & Engineering and Veterinary Sciences, and 76-100 in Agricultural Sciences.

Ranking Methodology

For an institution to be included in any subject ranking, it needed to meet a threshold in terms of research publications during the period 2015-2019. Note that the threshold may be different for different subject areas. The rankings were then produced based on five weighted indicators: Papers published in journals with Q1 Journal Impact Factor Quartile (Q1), Category Normalized Citation Impact (CNCI), International Collaboration (IC), Papers published in top journals (TOP), and Faculty awards (AWARD). Different weights were allocated to the indicators for different subjects. For example, Q1 accounted for 23.8 percent in Chemistry, Physics and a number of other subject areas, but 48.4 percent in Finance, Public Administration, and Sociology. Depending on the subject area, between 50 and 500 universities were ranked.

Area	Indicator	Weight ¹	Source		
Papers published in journals with Q1 Journal Impact Factor Quartile (Q1)	The number of papers authored by an institution in an Academic Subject in journals with Q1 Journal Impact Factor Quartile during 2015-19.	23.8% - 62.5%	InCites		
Category Normalized Citation Impact (CNCI)	A ratio of citation of papers published by an institution in an Academic Subject relative to the average number of citations of papers in the same category during 2015-19.	12.2% - 31.3%	InCites		
International Collaboration (IC)	The percentage of internationally collaborated papers authored by an institution in an Academic Subject during the period 2015-19.	2.4% - 6.3%	InCites		
Papers published in top journals (TOP)	The number of papers published in top journals in an Academic Subject in 2015-19.	0% - 32.3%	InCites – note that the journals were identified through ShanghaiRanking's Academic Excellence Survey ²		
Faculty awards (AWARD)	The total number of staff of an institution winning a significant award in an Academic Subject since 1981.	0% – 27.0%	The awards were identified through ShanghaiRanking's Academic Excellence Survey ²		

Notes:

- 1. Different weights were allocated to the indicators for different subjects.
- 2. The Academic Excellence Survey is a survey of deans, chairs, and department heads of the Top 100 universities. The survey asks respondents to identify top journals and awards in their subject areas.

For more information about GRAS methodology, please go to: https://www.shanghairanking.com/methodology/gras/2021

Rankings of the University of Saskatchewan

USask was ranked in just over 50% of the subject areas (28 of 54), one more than last year. Overall ranking results continued to be very strong in Water Resources (15 globally, 1 in Canada), Veterinary Sciences (51-75 globally, 4 in Canada), Environmental Science & Engineering (51-75 globally, tied for 4 in Canada), and Agricultural Sciences (76-100



globally, tied for 4 in Canada). Other positive outcomes included rankings of 101-150 in subjects Chemical Engineering (tied for 4 in Canada), Earth Sciences (tied for 6 in Canada), Energy Science & Engineering (tied for 4 in Canada), Food Science & Technology (8 in Canada), and Public Administration (tied for 3 in Canada). The outcome for Materials Science & Engineering was notably strong nationally as well (201-300 globally, tied for 3 in Canada).

There were no changes in the subject complement included in this year's ranking exercise.

USask Rankings in 2021 Global Ranking of Academic Subjects (GRAS)

Subject Area	World	Canada	U15	Subject Area	World	Canada	U15	
Engineering				Medical Sciences				
Aerospace Engineering	50+	2+	2+	Clinical Medicine	401-500	15*	14*	
Automation & Control	200+	8+	6+	Dentistry & Oral Sciences	300+	8+	8+	
Biomedical Engineering	300+	9+	9+	Medical Technology	201-300	10*	9*	
Biotechnology	301-400	9*	9*	Nursing	201-300	13*	12*	
Chemical Engineering	151-200	4*	4*	Pharmacy & Pharmaceutical Sciences	301-400	13	13	
Civil Engineering	201-300	14*	11*	Public Health	500+	20+	15	
Computer Science & Engineering	301-400	15*	9*	Natural Sciences				
Electrical & Electronic Engineering	401-500	22*	13	Atmospheric Science	201-300	10*	7*	
Energy Science & Engineering	151-200	4*	4*	Chemistry	301-400	7*	7*	
Environmental Science & Engineering	51-75	4*	4*	Earth Sciences	151-200	6*	5*	
Food Science & Technology	151-200	8	6	Ecology	201-300	11*	7*	
Instruments Science & Technology	300+	8+	6+	Geography	201-300	12*	8*	
Marine/Ocean Engineering	50+	1+	0+	Mathematics	500+	15+	10+	
Materials Science & Engineering	201-300	3*	3*	Oceanography	200+	9+	6+	
Mechanical Engineering	400+	20+	15	Physics	500+	12+	8+	
Metallurgical Engineering	200+	6+	6+	Social Sciences				
Mining & Mineral Engineering	100+	7+	5+	Business Administration	400+	22+	13+	
Nanoscience & Nanotechnology	301-400	6*	6*	Communication	300+	15+	9+	
Remote Sensing	100+	5+	3+	Economics	401-500	17*	14	
Telecommunication Engineering	300+	19+	12+	Education	401-500	19*	13	
Transportation Science & Technology	200+	16+	9+	Finance	200+	9+	8+	
Water Resources	15	1	1	Hospitality & Tourism Management	300+	15+	8+	
Life Sciences			Law	201-300	13*	9*		
Agricultural Sciences	76-100	4*	3*	Library & Information Science	100+	4+	4+	
Biological Sciences	401-500	13*	12*	Management	500+	24+	15	
Human Biological Sciences	500+	15+	13+	Political Sciences	301-400	15*	10*	
Veterinary Sciences	51-75	4	3	Psychology	500+	27+	15	
				Public Administration	151-200	3*	2*	
				Sociology	200+	10+	7+	
				Statistics	200+	9+	7+	

Notes:

- 1. Depending on the subject area, between 50 and 500 universities were ranked.
- 2. Grey fonts indicate that the USask was not ranked in the subject area, while XXX+ universities were ranked.
- 3. An asterisk (*) indicates a tie.

For more information, visit www.usask.ca/ipa