QS WORLD UNIVERSITY RANKINGS®

World University Rankings® by Subject 2020

Fact File

Summary Version
Version 1.0

UNIVERSITY OF PORTO

PORTUGAL

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THE 2020 QS WORLD UNIVERSITY RANKINGS BY SUBJECT
WILL BE LAUNCHED ON 4 MARCH 2020 ON www.topuniversities.com

WELCOME TO THE **2020 QS WORLD UNIVERSITY RANKINGS BY SUBJECT**

Welcome to your institution's fact file for the QS World University Rankings by Subject 2020.

This file provides the scores for your institution in the subjects that you have been evaluated in, as well as the scores and ranks for those subjects where you made it into the published rankings table. It should also provide you with useful information for any media communication you might need to prepare prior to launch.

To produce the rankings for this year the team analysed over 22 million papers, producing close to 200 million citations. 1,368 institutions have been ranked across 48 subjects in 5 subject areas, creating over 15,500 published entries. These figures reflect some of the scale behind this huge undertaking that the team carries out in order to produce these subject rankings.

The first section contains an "at a glance" summary of your institution's performance across the board in all the subject areas covered. The wheel chart is a graphical representation – brightly coloured bars indicate that you have achieved a score in that subject; the longer the bar the higher the score you have attained. A pale bar in a subject area indicates your performance in the broad subject area.

The next table shows a summary of your scores and ranks in all the subjects you have been ranked in including a column which also shows your domestic rank in that subject. The following table then shows you your results in the subject rankings for the last three years so you can track your progress.

In the Appendix you will find an explanation of the weightings that make up the different subject tables, the evolution of the subject rankings exercise, the paper thresholds that we have used in this edition and an indication of the number of institutions considered and ranked.

I hope you will find this useful, but we have also prepared a more extensive EXTENDED FACT FILE for you, presenting your institution in context, subject by subject, indicator by indicator in greater depth. Please file a request via the link attached in the email and the team will aim to get back to you within a couple of days depending on the volume of requests.

Selina Griffin
Rankings Manager, QS

2020 QS WORLD UNIVERSITY RANKINGS BY SUBJECT

UNIVERSITY OF PORTO

AT A GLANCE

RANKED IN

5 BROAD SUBJECT AREAS

SCORED IN

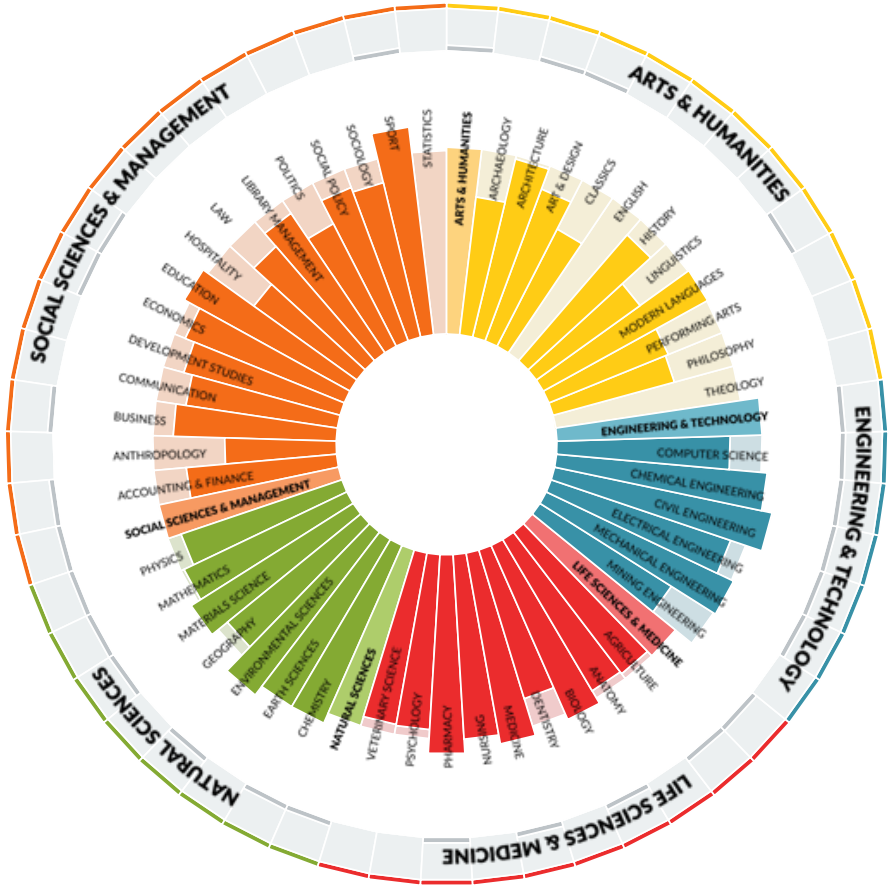
45 SUBJECTS

RANKED IN

22 SUBJECTS

TOP 100 FOR

4 SUBJECTS



Arts & Humanities

Engineering & Technology

Life Sciences & Medicine

Natural Sciences

Social Sciences & Management

Each bar presents the score in the given subject;

Lightly shaded areas indicate performance in the corresponding broad subject area.

2020 QS WORLD UNIVERSITY RANKINGS BY SUBJECT AREA

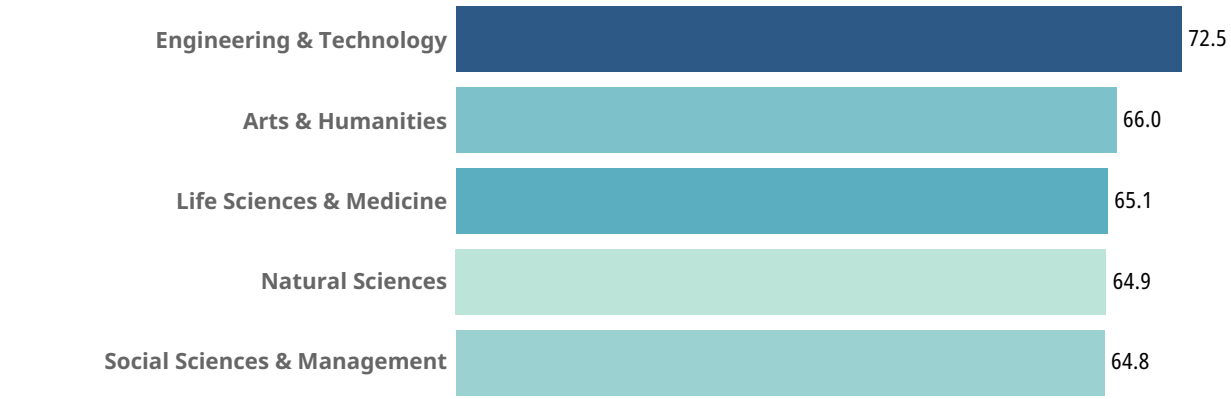
UNIVERSITY OF PORTO

Portugal

These are the ranks achieved by the institution in the QS Rankings by Broad Subject Area.

Arts & Humanities	Engineering & Technology	Life Sciences & Medicine	Natural Sciences	Social Sciences & Management
273	156=	249=	316=	294=

OVERALL SCORES BY SUBJECT AREA



In 2020, University of Porto has been ranked in **5** out of 5 broad subject areas.

Engineering & Technology is the institution's strongest field at **156=** and an overall score of **72.5**.

2020 QS WORLD UNIVERSITY RANKINGS BY SUBJECT

Below is the institution's detailed performance by indicator and overall score across the 48 subjects currently featured in the QS World University Rankings by Subject. It is very unusual for an institution to qualify for consideration in all 48 subjects.

		Global Rank	Domestic Rank	Academic	Employer	Citations	H-index	Score
Arts & Humanities	Arts & Humanities	273	2	66.7	67.4	74.8	50.6	66.0
	Archaeology			43.8	67.5	62.7	53.5	49.0
	Architecture / Built Environment	51-100	2	58.7	76.6	84.9	74.8	64.7
	Art & Design	151-200	3	56.0	68.3			57.2
	Classics & Ancient History			45.6	55.0			46.5
	English Language & Literature							
	History			52.7	61.8	69.8	69.5	58.7
	Linguistics			43.4	55.4	52.9	43.1	45.1
	Modern Languages	201-250	3	67.5	63.5			66.3
	Performing Arts			45.0	47.5			45.5
	Philosophy			41.6	65.8	55.5	43.9	44.4
	Theology, Divinity & Religious Studies							
Engineering & Technology	Engineering & Technology	156=	2	70.9	69.0	82.3	73.7	72.5
	Computer Science & Information Systems	251-300	2	45.6	65.4	77.3	78.1	61.2
	Engineering - Chemical	51-100	1	69.1	76.1	82.7	78.9	74.7
	Engineering - Civil & Structural	51-100	1	74.9	72.0	90.7	89.2	78.5
	Engineering - Electrical & Electronic	151-200	2	60.0	66.8	83.7	69.0	66.9
	Engineering - Mechanical, Aeronautical & Manufact..	101-150	1	66.9	73.6	85.3	77.8	73.3
	Engineering - Mineral & Mining			24.2	69.4	86.3	76.4	54.9
Life Sciences & Medicine	Life Sciences & Medicine	249=	2	64.2	65.3	72.9	58.5	65.1
	Agriculture & Forestry	101-150	2	50.9	47.5	82.6	80.9	62.9
	Anatomy & Physiology			45.7	60.6	75.6	75.3	62.1
	Biological Sciences	201-250	2	54.8	68.2	79.7	74.2	67.2
	Dentistry			41.3	69.6	60.1	58.3	54.9
	Medicine	201-250	1	55.5	65.9	80.2	78.6	68.5
	Nursing			51.9	76.3	77.2	63.1	65.3
	Pharmacy & Pharmacology	151-200	2	51.4	68.7	87.0	84.5	70.3
	Psychology			58.3	65.7	70.8	56.5	61.9
	Veterinary Science			38.1	82.4	76.8	62.6	61.5

2020 QS WORLD UNIVERSITY RANKINGS BY SUBJECT

		Global Rank	Domestic Rank	Academic	Employer	Citations	H-index	Score
Natural Sciences	Natural Sciences	316=	3	55.5	65.3	78.4	70.0	64.9
	Chemistry	201-250	1	57.1	71.2	82.5	75.3	68.6
	Earth & Marine Sciences			56.3	75.0	77.4	76.8	68.6
	Environmental Sciences	151-200	2	61.3	60.9	87.9	79.4	72.4
	Geography			55.7	67.8	72.5	64.1	60.7
	Materials Science	201-250	2	54.7	67.0	86.5	70.0	67.7
	Mathematics	251-300	2	57.4	60.2	75.1	68.4	63.7
	Physics & Astronomy	351-400	3	47.8	57.8	78.1	68.6	60.0
Social Sciences & Management	Social Sciences & Management	294=	3	62.9	63.3	81.9	61.9	64.8
	Accounting & Finance	251-300	3	48.6	66.0	36.1	56.2	53.3
	Anthropology			36.5	51.0	41.8	45.9	39.4
	Business & Management Studies	301-350	4	46.9	61.4	77.9	79.6	57.6
	Communication & Media Studies			51.7	65.8	60.7	47.5	54.1
	Development Studies			53.5	52.6	72.8	59.2	57.2
	Economics & Econometrics	251-300	2	54.1	64.2	71.4	59.2	60.6
	Education	101-150	1	62.4	66.7	74.8	70.0	66.8
	Hospitality & Leisure Management			54.4	35.3	53.9		44.8
	Law			47.6	56.7	75.9	57.9	53.3
	Library & Information Management			57.5	70.5	58.8	66.3	59.4
	Politics & International Studies			38.1	67.4	45.8	47.6	48.6
	Social Policy & Administration			57.1	60.8	56.5		57.8
	Sociology			57.0	50.1	75.1	49.5	56.1
	Sports-related Subjects	51-100	2	71.2	58.0	87.6	81.8	73.9
	Statistics & Operational Research							

NOTES:
There are different reasons why an institution may not have results in any given subject.
1. It may not offer a program
2. It may not have published a sufficient number of papers
3. It may not have attracted a minimum level of recognition through our surveys.
4. Receiving a score for a particular subject does not guarantee that we have checked for its presence in your institution. These checks are only carried out for institutions with a score high enough to receive a published rank in the subject.

2020 QS WORLD UNIVERSITY RANKINGS BY SUBJECT

The tables below present the rank evolution in each evaluated subject.

		2018	2019	2020
Arts & Humanities	Arts & Humanities	295=	311=	273
	Art & Design	151-200	151-200	151-200
	History			
	Archaeology	151-200		
	Architecture / Built Environment	51-100	51-100	51-100
	Classics & Ancient History			
	English Language & Literature			
	Linguistics	201-250		
	Modern Languages	151-200	201-250	201-250
	Performing Arts			
	Philosophy			
	Theology, Divinity & Religious Studies			
Engineering & Technology	Engineering & Technology	135=	178=	156=
	Computer Science & Information Systems	151-200	251-300	251-300
	Engineering - Chemical	51-100	51-100	51-100
	Engineering - Civil & Structural	51-100	51-100	51-100
	Engineering - Mechanical, Aeronautical & Manufactu..	151-200	101-150	101-150
	Engineering - Electrical & Electronic	151-200	151-200	151-200
	Engineering - Mineral & Mining			
Life Sciences & Medicine	Life Sciences & Medicine	227=	260=	249=
	Agriculture & Forestry	101-150	101-150	101-150
	Anatomy & Physiology			
	Biological Sciences	251-300	251-300	201-250
	Medicine	201-250	201-250	201-250
	Pharmacy & Pharmacology	101-150	151-200	151-200
	Psychology			
	Veterinary Science			
	Dentistry			
	Nursing			

		2018	2019	2020
Natural Sciences	Natural Sciences	302=	355=	316=
	Chemistry	151-200	201-250	201-250
	Earth & Marine Sciences			
	Environmental Sciences	101-150	151-200	151-200
	Geography			
	Materials Science	201-250	201-250	201-250
	Mathematics	251-300	301-350	251-300
	Physics & Astronomy	401-450	351-400	351-400
Social Sciences & Management	Social Sciences & Management	280=	312=	294=
	Accounting & Finance		251-300	251-300
	Anthropology			
	Business & Management Studies		301-350	301-350
	Communication & Media Studies			
	Development Studies			
	Economics & Econometrics	251-300	251-300	251-300
	Education	151-200	101-150	101-150
	Hospitality & Leisure Management			
	Law			
	Library & Information Management			
	Politics & International Studies			
	Social Policy & Administration			
	Sociology		251-300	
	Sports-related Subjects	51-100	51-100	51-100
	Statistics & Operational Research			

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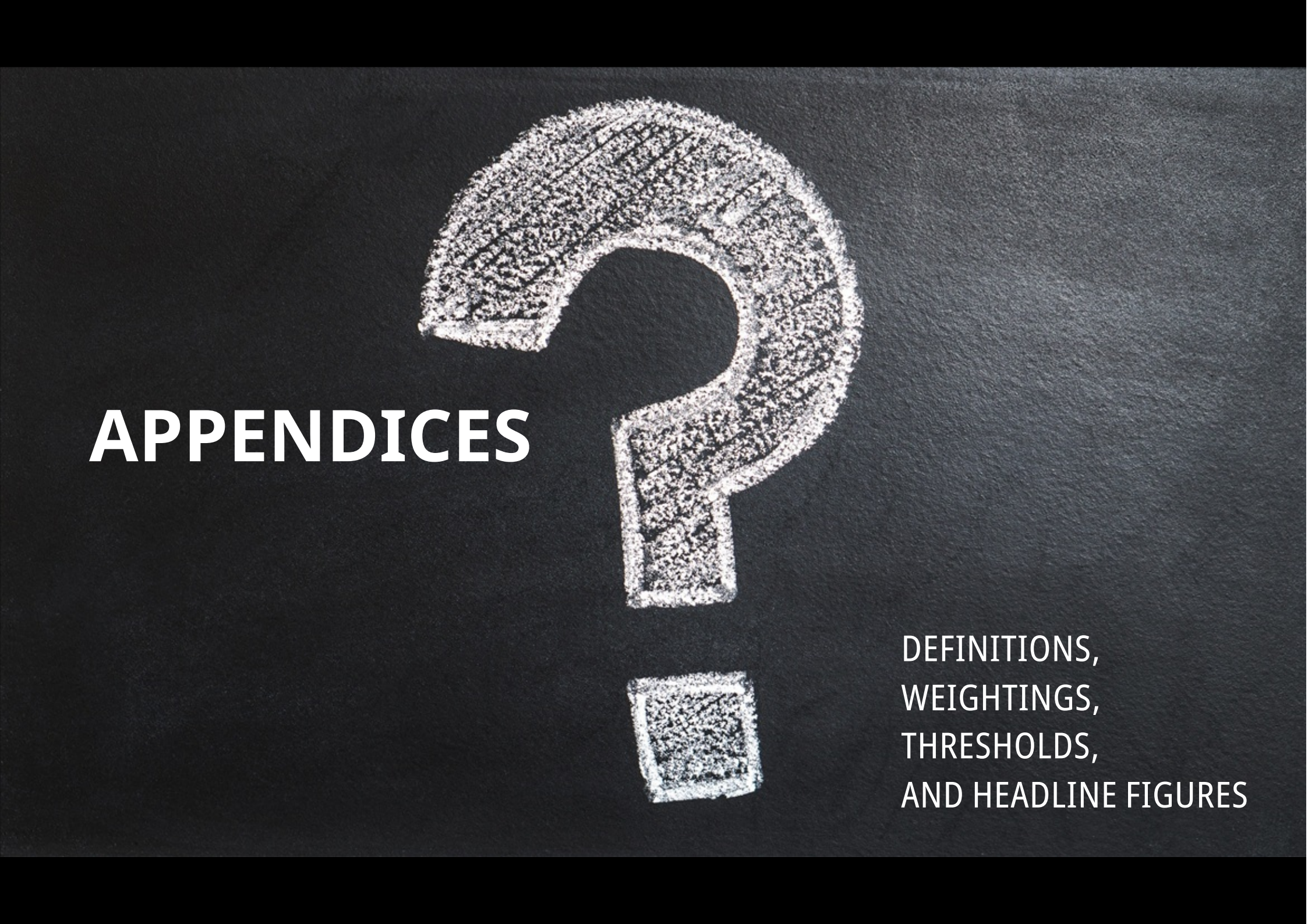

APPENDICES
DEFINITIONS,
WEIGHTINGS,
THRESHOLDS,
AND HEADLINE FIGURES

METHODOLOGY: DEFINITIONS & WEIGHTINGS

ACADEMIC REPUTATION

Between 2015 and 2019 QS has collected votes from over 94,000 academics around the world. Each academic counted has given their opinion on universities in their fields of expertises.

EMPLOYER REPUTATION

The employability metric is based on employer reputation. Over 44,000 global employer votes have been taken into account between 2015 and 2019 giving us a large pool of information in terms of hiring levels. Employers across all sectors and industries have taken part in the survey and include Facebook, Google, Uber, Wells Fargo, Bank of America etc.

CITATIONS PER PAPER

This ratio measures the average number of citations obtained per publication, and is an estimate of the impact and quality of the scientific work done by universities. To avoid anomalous results, only the institutions producing a minumum number of papers in the last five years are evaluated.

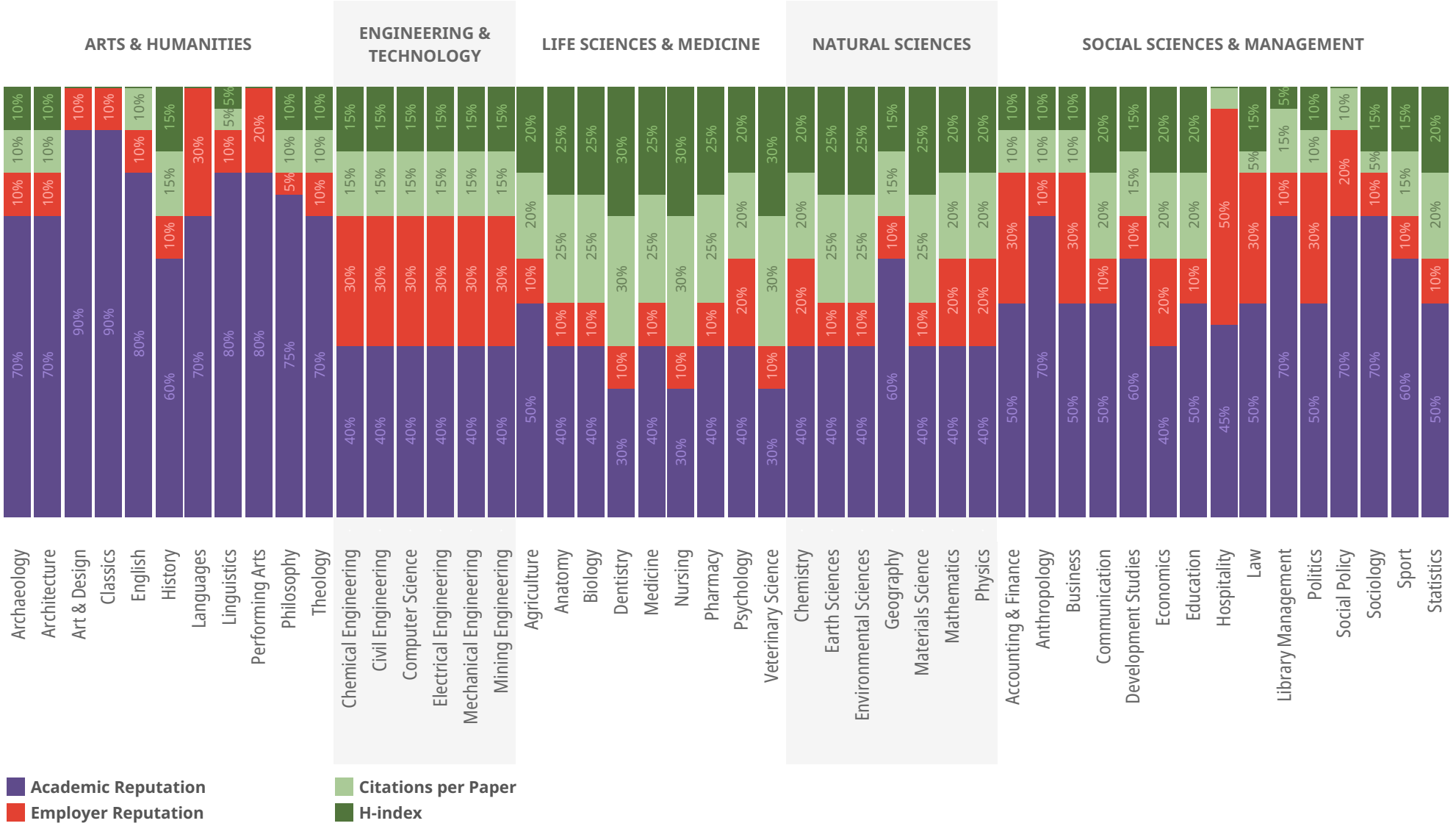
H-INDEX

The h-index is an index that attempts to measure both the productivity and impact of the work published by the insitutions' scientists and scholars. The index is based on the set of the institution's most cited papers and the number of citations that they have received in other publications.

	ACADEMIC REPUTATION	EMPLOYER REPUTATION	CITATIONS PER PAPER	H-INDEX
Arts & Humanities	60%	20%	10%	10%
Engineering & Technology	40%	30%	15%	15%
Life Sciences & Medicine	40%	10%	25%	25%
Natural Sciences	40%	20%	20%	20%
Social Sciences & Management	50%	30%	10%	10%

2020 QS WORLD UNIVERSITY RANKINGS BY SUBJECT

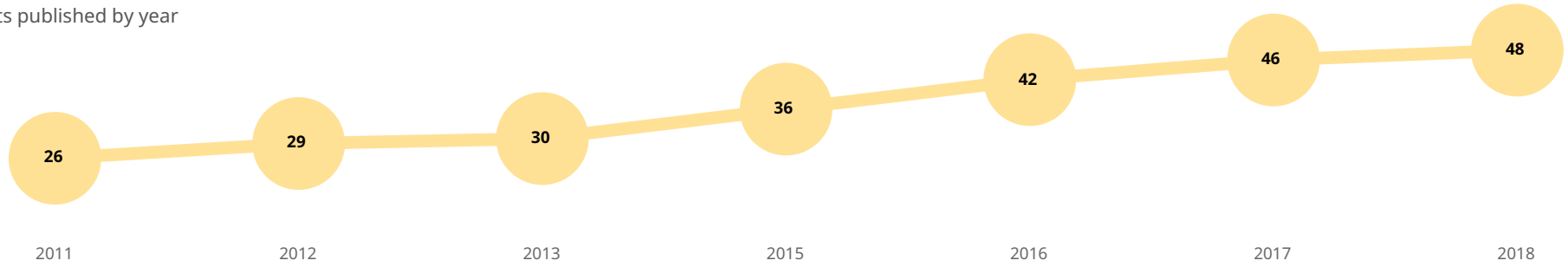
We use a variable approach to the weightings for the different subjects. The chart below provides details of the combinations used in the 2020 edition of the rankings.



2020 QS WORLD UNIVERSITY RANKINGS BY SUBJECT

The **QS World University Rankings® by Subject** ranks the world's top universities in individual subject areas, covering 48 disciplines as of 2020. A list of the considered subjects, grouped by the year of first release, is presented below.

Subjects published by year



2011	2012	2013	2015	2016	2017	2018
Accounting & Finance	Communication	Agriculture	Architecture	Anthropology	Anatomy	Classics
Biology	Education		Art & Design	Archaeology	Hospitality	Library Management
Chemical Engineering	Pharmacy		Business	Mining Engineering	Sport	
Chemistry			Dentistry	Nursing	Theology	
Civil Engineering			Development Studies	Performing Arts		
Computer Science			Veterinary Science	Social Policy		
Earth Sciences						
Economics						
Electrical Engineering						
English						
Environmental Sciences						
Geography						
History						
Languages						
Law						
Linguistics						
Materials Science						
Mathematics						
Mechanical Engineering						
Medicine						
Philosophy						
Physics						
Politics						
Psychology						
Sociology						
Statistics						

PUBLISHED INSTITUTIONS BY LOCATION

TOP 10 LOCATIONS BY NUMBER OF INSTITUTIONS CONSIDERED

United States	441
France	191
United Kingdom	173
India	165
Russia	163
Germany	138
China (mainland)	131
Japan	122
South Korea	107
Brazil	94

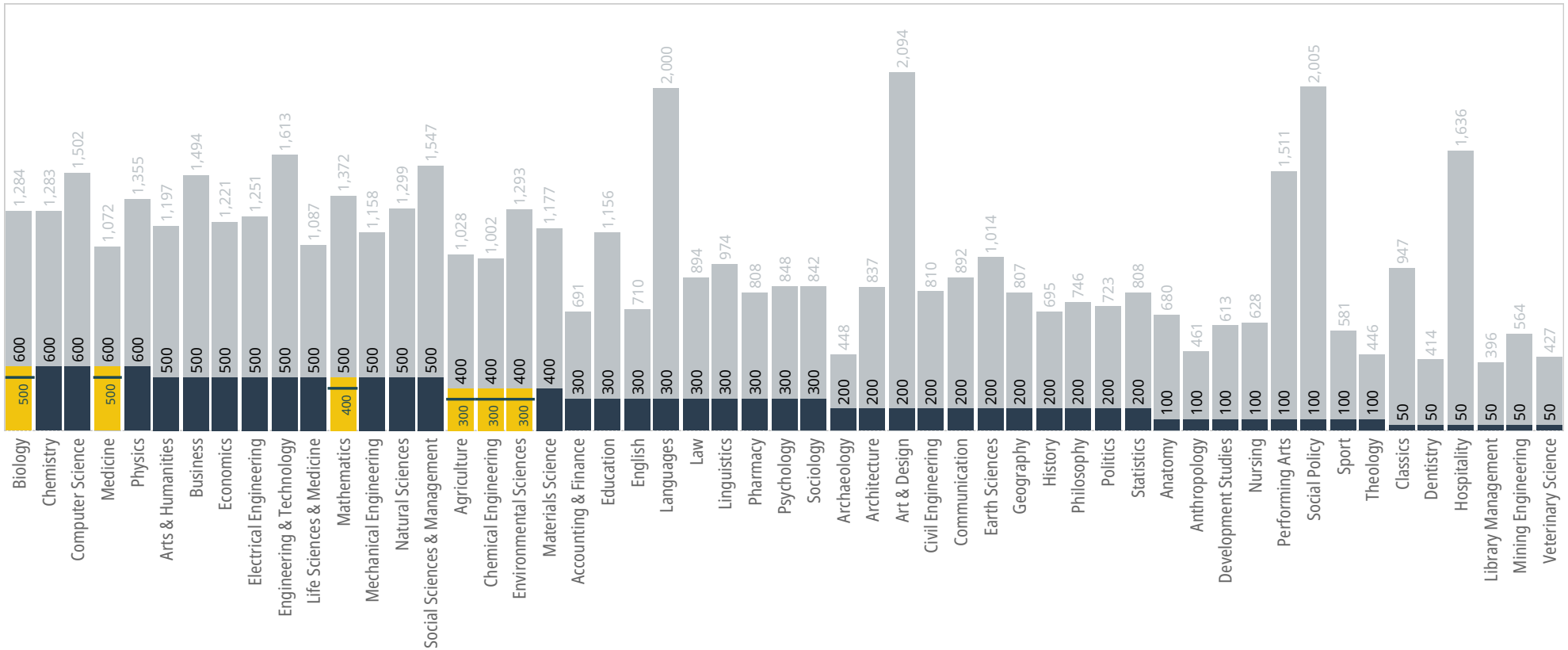
2020 QS WORLD UNIVERSITY RANKINGS BY SUBJECT

The charts below present the number of institutions considered and published in each of the relevant subject areas.

Subjects	Locations	Institutions
48	158	1,369

INSTITUTIONS CONSIDERED AND **PUBLISHED** BY SUBJECT - YEAR 2020

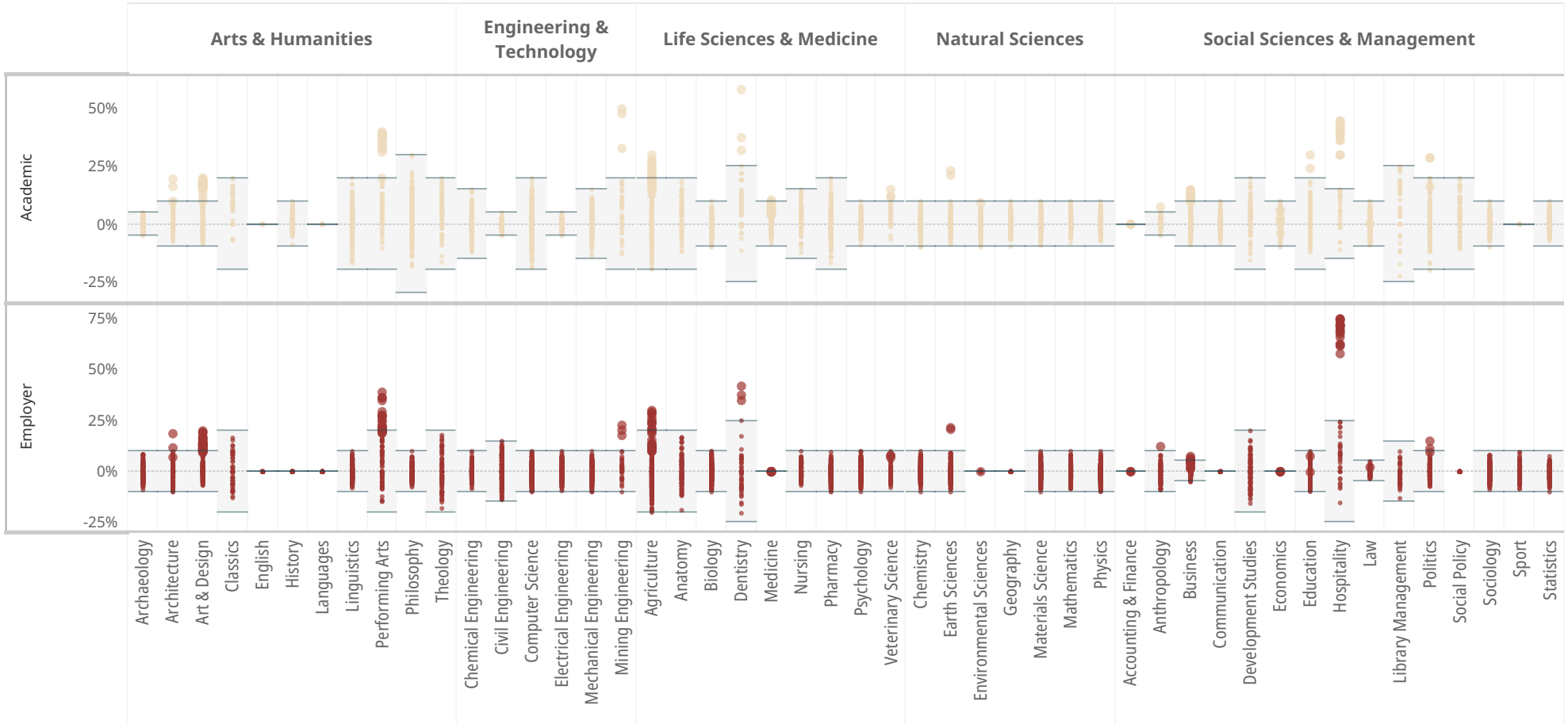
Subjects with highlight color have extended publishing ranges.



2020 QS WORLD UNIVERSITY RANKINGS BY SUBJECT

In the QS Subject Rankings methodology, a specialization adjustment is applied to the original reputation scores in order to boost the performance of those institutions that present a stronger focus in specific subjects. The original rank calculated for each subject is compared against the rank obtained in the relevant broad subject area containing the said subject according to the QS mapping. For example, the results in Biology are compared against the overall rank in Life Sciences & Medicine. Whenever the rank difference between the subject and the broad area exceeds five places, a positive or negative adjustment is applied in the Reputation score. The method compares the proportional difference for each institution against the maximum and minimum recorded globally. The maximum change cannot exceed the percentages presented in the chart below.

DISTRIBUTION OF SPECIALIST ADJUSTMENTS - REPUTATION



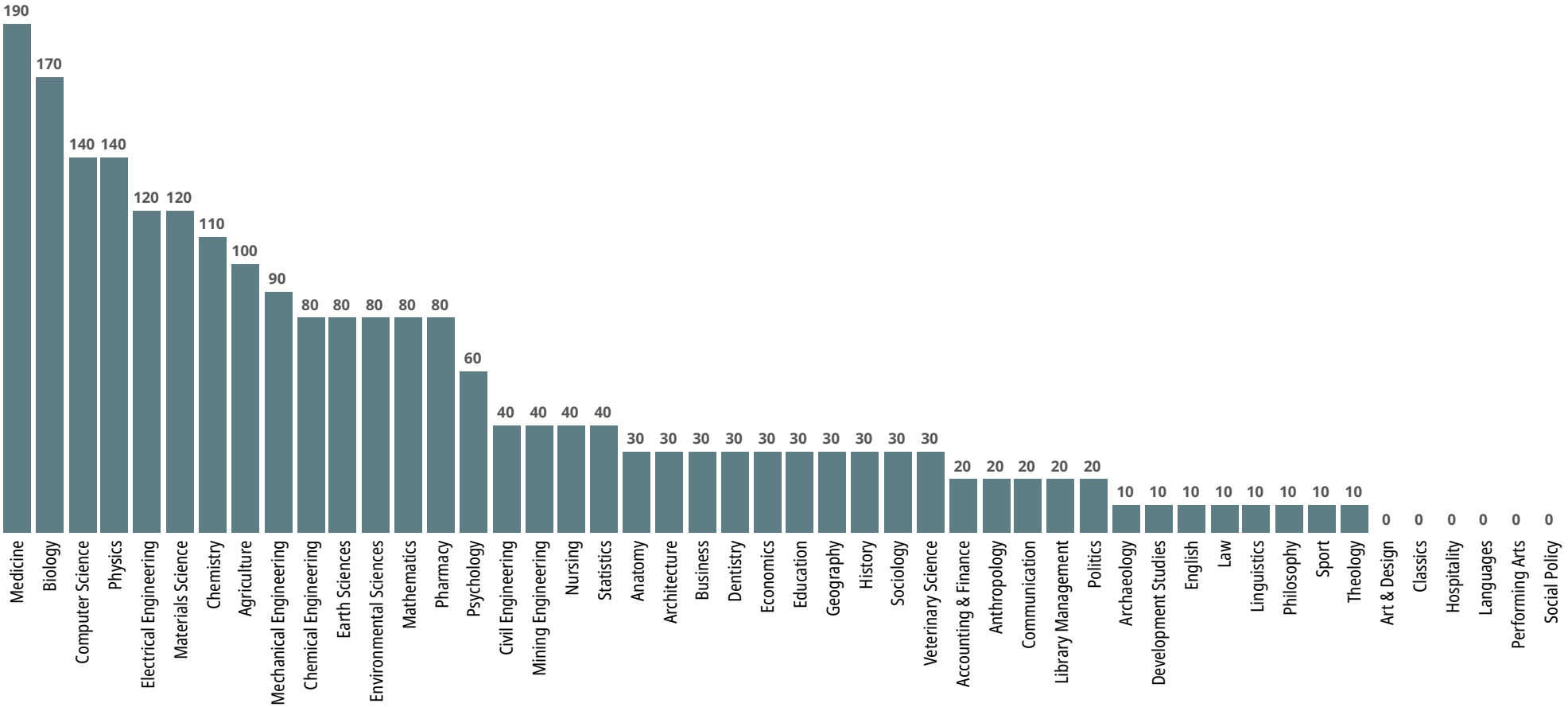
2020 QS WORLD UNIVERSITY RANKINGS BY SUBJECT

In order to feature in any discipline table, an institution must meet three simple prerequisites:

- Offer undergraduate or taught postgraduate programmes in the given discipline
- Exceed the minimum required score for the academic and/or employer reputation indicators
- Exceed the five-year threshold for number of papers published and indexed by Scopus in the given discipline

The following chart discloses the minimum number of papers required to be considered in the latest edition of the rankings by subject.

PAPER THRESHOLD BY SUBJECT - YEAR 2020
MINIMUM NUMBER OF PUBLICATIONS INDEXED BY SCOPUS REQUIRED TO BE CONSIDERED IN THE RANKINGS.



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