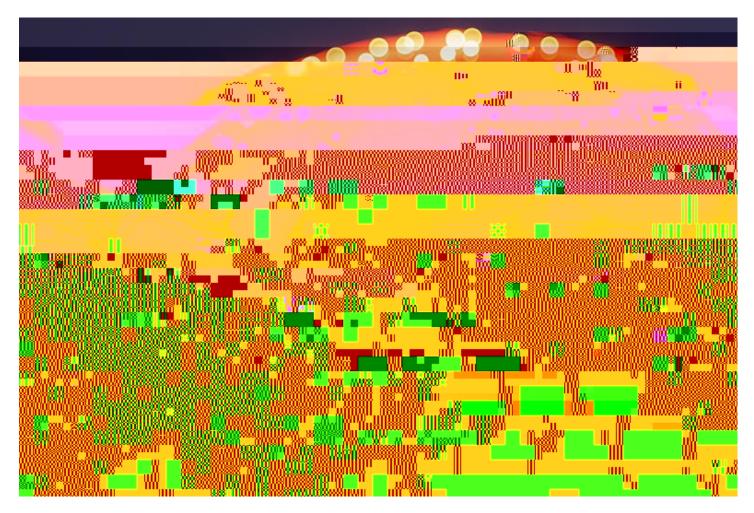
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# METHODOLOGY FOR THE TIMES HIGHER EDUCATION CHINA SUBJECT RATING S 2024

March 2024



## Summary of the Ratings methodology:

The Chinese Subject Ratings are the only performance tables that judge Chinese institutions on the Chinese Ministry of Education (MoE) subjects against universities across the world. This is done against researchintensive universities across all their core missions: teaching, research, research influence, international outlook and knowledge transfer. We use 11 carefully calibrated performance indicators, listed below, to provide the most comprehensive and balanced comparisons, trusted by students, academics, university leaders, industry and governments.

The 2024 China Subject Ratings are published in March 2024.

The performance indicators are grouped into five areas:

- Teaching (the learning environment)
  - Reputation Survey ±Teaching
  - o Academic Staff-to-Student Ratio
  - Institutional Income / Academic Staff
- Research (volume, income and reputation)
  - Reputation Survey ±Research
  - o Research Income / Academic Staff
  - o Publications

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• International outlook (staff, students and research)

## 2) Subject s Criteria

The Chinese Ministry of Education (MoE) categorises 113 subjects across 14 pillars. 83 subjects have been included in the ratings, the other 30 subjects have been excluded for the following reasons:

Militar y

The following 15 subjects were not included as they had a strong military and/or national security theme

306

## 3) Criteria for exclusion, inclusion, and data processing

Exclusion and inclusion criteria

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competition and judged by peer review, our experts suggested that it was a valid measure. This indicator takes account of each

#### Weighting of Metrics

The metric weightings for each subject are calculated based on the number of papers produced by universities in each subject, the number of reputation votes in both research and teaching in each subject, and in line with the related subject metric weightings employed in the WUR.

The WUR metrics are carefully calibrated, with the weightings changed to best suit the individual subjects. The weightings given to the research indicators in particular have been altered to fit more closely the research culture in each subject, reflecting different publication habits: in the arts and humanities, for instance, where the range of outputs extends well beyond peer-reviewed journals, we give less weight to paper citations.

Two of the metrics used in the WUR are not used in these ratings.

The metric weightings for each subject are shown in the subject appendix.

### Normalisation

Moving from a series of specific data points to indicators to a total score for an institution requires us to match values that represent fundamentally different data. To do this we use a standardisation approach for each indicator, and then combine the indicators in the proportions indicated below.

The standardisation approach we use is based on the distribution of data within a particular indicator for each subject, ZKHUH ZH FDOFXODWH D FXPXODWLYH SUREDELOLW\ IXQFWLRQ DQG H that function.

For all indicators we calculate the cumulative probability function using either a version of Z-scoring, Exponential, Generalised Normal, or Weibull component.

#### Grade production

Once the overall scores have been produced, a grade is calculated for each university within each subject. The subject grades are A+, A, A-, B+, B, B-, C+, C, C-; these are evenly split across the ranked universities across the world, such that the top 11.11% of world universities in a subject receive an A+, the next 11.11% receive an A, etc «

818	Geological resources and	Physical Sciences	Geology and Environmental Science
	geological engineering	Sciences	Environmental Science
819	Mining Engineering	Engineering	General Engineering, Geology and Environmental Science
820	Oil and gas engineering	Engineering	, General Engineering, Chemical Engineering
822	Light Industry Technology and Engineering	Engineering	General Engineering
823	Transport Engineering	Engineering	General Engineering, Mechanical and Aerospace Engineering
824	Naval Architecture and Ocean Engineering	Engineering	General Engineering
825	Aerospace Science and Technology	Engineering	Mechanical and Aerospace Engineering
827	Nuclear Science and Technology	Engineering	General Engineering, Electrical and Electronic Engineering, Other Physical Sciences subject
828	Agricultural Engineering	Engineering	Other Engineering subject, Agricultural and Forestry
829	Forestry Engineering	Engineering	Other Engineering subject, Agricultural and Forestry

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0822	30	17.5%	8.4%	4.2%	4.2%	4.2%	20.0%	7.5%	7.4%	19.0%	5.0%	2.5%
0823	30	17.5%	4.7%	2.4%	2.4%	2.4%	29.0%	4.2%	4.2%	29.0%	2.8%	1.4%
0824	30	15.0%	7.3%	3.6%	3.6%	3.6%	24.0%	6.6%	6.7%	23.0%	4.4%	2.2%
0825	30	20.0%	3.9%	1.9%	1.9%	1.9%	30.0%	3.4%	3.5%	30.0%	2.3%	1.1%
0827	30	20.0%	3.8%	1.9%	1.9%	1.9%	30.0%	3.5%	3.3%	30.0%	2.3%	1.2%
0828	30	15.0%	4.8%	2.4%	2.4%	2.4%	30.0%	4.3%	4.3%	30.0%	2.9%	1.5%
0829	30	17.5%	5.3%	2.6%	2.6%	2.6%	28.0%	4.8%	4.8%	27.0%	3.1%	1.6%
0830	100	28.3%	2.9%	1.5%	1.5%	1.5%	28.3%	2.6%	2.6%	28.3%	1.7%	0.9%
0831	30	20.0%	3.8%	1.9%	1.9%	1.9%	30.0%	3.5%	3.4%	30.0%	2.3%	1.1%
0832	30	17.5%	5.1%	2.5%	2.5%	2.5%	28.0%	4.6%	4.6%	28.0%	3.0%	1.5%
0833	100	22.5%	4.4%	4.4%	4.4%	4.4%	19.0%	6.6%	6.6%	18.0%	6.6%	3.3%
0834	30	15.0%	5.3%	5.3%								

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30	17.5%	2.8%	2.8%	2.8%	2.8%	28.0%	5.4%	5.5%	27.0%	3.7%	1.8%	l
30	17.5%	3.3%	3.3%	3.3%	3.3%	25.0%	6.4%					