

THE WORLD UNIVERSITY RANKINGS CHINA SUBJECT RATINGS

METHODOLOGY FOR THE *TIMES HIGHER EDUCATION* CHINA SUBJECT RATINGS 2020

July 2020



Times Higher Education China Subject Ratings:

Times Higher Education is the data provider underpinning university excellence in every continent across the world. As the company behind the world’s most influential university ranking, and with almost five decades of experience as a source of analysis and insight on higher education, we have unparalleled expertise on the trends underpinning university performance globally. Our data and benchmarking tools are used by many of the world’s most prestigious universities to help them achieve their strategic goals.

The *Times Higher Education (THE)* China Subject Ratings (CSR) aims to provide the definitive list of the Chinese subjects across universities worldwide, evaluated across five key areas of Teaching, Research, Citations, International Outlook and Industry Income. *Times Higher Education’s* data is trusted by governments and universities and is a vital resource for students, helping them choose where to study.

These ratings uses much of the underlying methodology used in the World University Rankings (WUR). To help demonstrate the integrity of the WUR, PricewaterhouseCoopers LLP UK (“PwC”) have undertaken independent limited assurance over our application of the specific procedures in the WUR 2020, details of this can be found in the WUR 2020 methodology.

The methodology is divided into four sections which are set out in the remainder of the document:

- 1) Data collection and sources**
- 2) Subjects Criteria**
- 3) Criteria for exclusion, inclusion, and data processing**
- 4) Calculation, scoring and rating**
- 5) Publication and reporting**

Details of the methodology applied within each section are set out in the red boxes.

Important links:

THE WUR 2020 Final Rankings: <https://www.timeshighereducation.com/world-university-rankings/2020/world-ranking>

THE WUR 2020 Methodology: <https://www.timeshighereducation.com/world-university-rankings/methodology-world-university-rankings-2020>

Directors’ Statement:

This document (the “Methodology”) sets out our end-to-end process for generating the THE China Subject Ratings 2020 (the “Ratings”). As directors and management of Times Higher Education, we state that we have followed our Methodology

Signed:

Print:

Role:

Date:

For and on behalf of *THE* World Universities Insights Limited

Summary of the Ratings methodology:

The *Times Higher Education* Chinese Subject Ratings are the only performance tables that judge Chinese institutions on the Chinese MOE subjects against universities across the world. This is done against research-intensive 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 2020 China Subject Ratings are published in July 2020.

The performance indicators are grouped into five areas:

- **Teaching** (the learning environment)
 - Reputation Survey – Teaching
 - Academic Staff-to-Student Ratio
 - Institutional Income / Academic Staff

- **Research** (volume, income and reputation)
 - Reputation Survey – Research
 - Research Income / Academic Staff
 - Publications

- **Citations** (research influence)
 - Field Weighted Citation Impact

- **International outlook** (staff, students and research)
 - Proportion of International Students
 - Proportion of International Academic Staff
 - International co-authorship (International Publications / Publications Total)

- **Industry income** (knowledge transfer)
 - Research income from industry & commerce / Academic Staff

1) Data collection and sources

Institutional data – self-submitted on the *THE* Portal

A named representative from each institution submits and authorises their institutional data for use in the World University Rankings via THE's designated online portal, with confirmations that they have:

- Provided true and accurate information for their institution for 2017; and
- Understood and complied with the THE terms and conditions → <https://www.timeshighereducation.com/terms-and-conditions>;

Times Higher Education will not self-submit data for an institution without positive confirmation from the named representative of the institution.

Prior to submission of data within the portal, the draft data undergoes certain automatic validation checks to ensure that data is complete and accurate, for review by the named representative

Elsevier

Bibliometric data

We examine research influence by capturing the number of times a university's published work is cited by scholars globally. This year, our bibliometric data supplier Elsevier examined 86 million citations to 13.6 million journal articles, article reviews, conference proceedings, books and book chapters published over five years. The data include more than 24,000 academic journals indexed by Elsevier's Scopus database and all indexed publications between 2015 and 2019. Citations to these publications made in the six years from 2015 to 2020 are also collected.

Citations data is a score per institution calculated by Elsevier; they provide the Field-Weighted Citation Impact (FWCI) score, per subject and overall.

The FWCI score indicates how the number of citations received by an entity's publications compares with the average number of citations received by all other similar publications. 'Similar publications' are understood to be publications in the Scopus database that have the same publication year, type, and discipline, as defined by the Scopus journal classification system.

A FCWI of 1.00 indicates the global average.

Papers with more than 1,000 authors have been incorporated using a fractional counting approach to ensure that all universities where academics are authors of these papers will receive at least 5 per cent of the value of the paper. The institutions with authors that provide the most contributors to the paper receive a proportionately larger contribution.

We also collect the total number of publications overall, plus the total number of publications with international co-authorship per institution, providing they meet our 'sufficient publications' criteria (detailed in section 2).

The citations help to show us how much each university is contributing to the sum of human knowledge: they tell us whose research has stood out, has been picked up and built on by other scholars and, most importantly, has been shared around the global scholarly community to expand the boundaries of human understanding, irrespective of discipline.

Academic reputation survey

An annual survey was sent to a sample of academics randomly selected by Elsevier, in which we ask them to nominate the universities that they perceive to be the best for Teaching and/or Research in their field. For the 2018 and 2019 surveys, academics were asked to nominate up to 15 institutions for Teaching and up to 15 institutions for Research globally. The 2019 results were combined with the 2018 results for use in the ratings.

The Teaching and Research scores for an institution at the global level were the count of mentions they received in each category, weighted both to reflect the distribution of scholars across the world (using data from UNESCO <http://data.uis.unesco.org>) and the distribution of respondents by subject in the survey.

The academic reputation score for a university is the number of mentions they received for the 2018 and 2019 surveys in the global teaching and research sections. Where a university received no votes, they were allocated a zero score.

Total reputation score for each university was calculated based on the aggregate of individual respondent data obtained from Elsevier.

Reference data

THE incorporates reference datasets into its model to convert country-level data provided by institutions via the portal (e.g. research income in a local currency) to a single comparable dataset for all institutions.

The sources of this data are:

- The Her Majesty Revenue and Customs (HMRC) monthly datasets: [<https://www.gov.uk/government/publications/hmrc-exchange-rates-for-2017-monthly>], which provides accurate foreign exchange rates to convert datasets into GBP and then back into their local currency if an institution reports in a foreign currency;
- The World Bank Purchase Power Parity (PPP) dataset [<http://data.worldbank.org/indicator/PA.NUS.PPP>], which is used to convert the local currency to common-PPP-scaled USD. PPP is used to exemplify the differing currency strengths in each country while allowing for easy cross country comparisons; and
- Where data for a country doesn't exist in the World Bank database, a dataset from the IMF [<https://www.imf.org/external/pubs/ft/weo/2019/01/weodata/weose1gr.aspx>] or UN data is used [http://data.un.org/Data.aspx?d=WDI&f=Indicator_Code%3APA.NUS.PPP].

2) Subjects Criteria

The Chinese Ministry of Education categorises 111 subjects across 13 pillars. 89 subjects have been included in the ratings, the other 22 subjects have been excluded for the following reasons:

Military

The following 14 subjects were not included as they had a strong military and/or national security theme

306	公安学	Public security
826	兵器科学与技术	Weaponry Science and Technology
838	公安技术	Public Security Technology
839	网络空间安全	Cyber Security
1101	军事思想及军事历史	Military Thought and Military History
1102	战略学	Strategy
1103	战役学	Battle Science
1104	战术学	Tactics
1105	军队指挥学	Army Command Studies
1106	军事管理学	Military Science
1107	军队政治工作学	Army Political Work
1108	军事后勤学	Military Logistics
1109	军事装备学	Military Equipment Science
1110	军事训练学	Military Training

China specific

The following 7 subjects were not included as they are too specific to China and therefore difficult to compare internationally

305	马克思主义理论	Marxist theory
501	中国语言文学	Chinese language & literature
602	中国史	Chinese History
1005	中医学	Traditional Chinese Medicine
1006	中西医结合	Western and Chinese Medicine Integration
1008	中药学	Traditional Chinese Pharmacy
1009	特种医学	Special medicine / Medical Aspects of Specific Environments

Law (301) was also excluded as we didn't have sufficient data for the international comparison

Subject Mappings

In order we can provide information for the Chinese Subjects Ratings we have mapped 3 subject categorisations to the China Ministry of Education subjects:

- WUR Subjects – The 11 subjects used in the World University Ranking
- Reputation Subjects – The 50 subject categories used to capture reputation information
- Elsevier ASJC Subjects – The 334 subjects used by Elsevier to categorise academic papers

Details of these mappings can be found in the Subject Appendix

3) Criteria for exclusion, inclusion, and data processing

Exclusion and inclusion criteria

There are five key criteria for universities to be included in the CSR overall and for each individual subject:

1. They must be included in the World University Rankings (WUR) 2020, and have applied for inclusion in WUR 2021.

AND

2. They must have been eligible for the related individual WUR 2020 subject.

AND

3. They must have selected the related detailed subject during the WUR 2020 submission.

AND

4. They must have at least the minimum number of papers required between 2014-2018 for each specific subject

Universities meeting the five key inclusion criteria are included in the ratings for a given subject

Data adjustments

After the deadline of the submission of data for the WUR via the Portal by institutions, management review and approve all institution submissions data for appropriateness and accuracy, based on prior year values and gaps within datasets as described below.

On the occasions where an institution does not provide a data point which would result in the inability to generate a metric, the missing metric may be calculated by imputing the value as the higher of:

- The average of the two lowest metric scores for an institution; or
- The minimum score awarded across the whole population for that metric.

Data processing pre-ratings

Data provided by institutions for financial information is converted into USD using international PPP exchange rates (provided by the World Bank), for use in the Ratings calculation

The datasets used in the ratings have been accurately mapped by university name and ID. Institution-level bibliometric (Scopus and/or SciVal) and reputation survey data obtained from Elsevier is mapped to THE institution data via THE's institution ID.

3) Calculation, scoring and grading

Calculation of metrics

There are 11 indicators, each combined into 5 categories, or “pillars”, which are weighted according to relative importance.

The weighted indicators are calculated for each subject for each university based on the definitions below:

1. Teaching (the learning environment)

Reputation survey

- The most recent Academic Reputation Survey (run annually) that underpins this metric was carried out from November 2018 to March 2019. It examined the perceived prestige of institutions in teaching. This metric is the total number of votes obtained from the Elsevier reputation survey from the last two years. Each year is calculated as the number of global teaching votes from respondents of the reputation survey, weighted by subject and country to be representative of the distribution of academics globally. Only non-zero values will be standardised using a logarithmic function, and universities that received no votes are scored a zero for this metric. The Reputation Subjects are mapped to the China Subjects for this purpose as outlined in the “Subject Mappings” section

Academic Staff-to-student ratio

- The academic staff-to-student ratio is defined as total full time equivalent (FTE) number of staff employed in an academic post divided by FTE number of students in all years and of all programmes that lead to a degree, certificate, university credit or other qualification. This variable is normalised after calculation.

Institutional income per staff

- This measure of income indicates an institution’s general status and gives a broad sense of the infrastructure and facilities available to students and staff. This metric is generated by dividing the institutional income adjusted to PPP, by the total number of academic staff. This variable is normalised after calculation.

2. Research (volume, income and reputation)

Reputation survey

- The most recent Academic Reputation Survey (run annually) that underpins this metric was carried out from November 2018 to March 2019. It examined the perceived prestige of institutions in research. This metric is the total number of votes obtained from the Elsevier reputation survey from the last two years. Each year is calculated as the number of global research votes from respondents of the reputation survey, weighted by subject and country to be representative of the distribution of academics globally. Only non-zero values will be standardised using a logarithmic function, and universities that received no votes are scored a zero for this metric.

Research income per staff

- This metric is generated by dividing the total subject weighted research income adjusted for PPP, by the total subject weighted number of academic staff and is normalised after calculation. This is a somewhat controversial indicator because it can be influenced by national policy and economic circumstances. Income is crucial to the development of world-class research, and because much of it is subject to competition and judged by peer review, our experts suggested that it was a valid measure. This indicator takes account of each institution’s distinct subject profile, reflecting the fact that research grants in science subjects are often bigger than those awarded for the highest-quality social science, arts and humanities research.

Research volume

- This metric is generated by taking the total subject weighted number of papers published in the academic journals indexed by Elsevier's Scopus database per scholar. This metric is normalised after calculation. The indicator gives a sense of the institution's ability to get papers published in quality peer-reviewed journals.

3. *Citations (research influence)*

Our research influence indicator looks at universities' role in spreading new knowledge and ideas. We examine research influence by capturing the number of times a university's published work is cited by scholars globally. The data includes more than 23,400 academic journals indexed by Elsevier's Scopus database and all indexed publications between 2014 and 2018. Citations to these publications made in the six years from 2014 to 2019 are also collected. The data is normalised by Elsevier to reflect variations in citation volume between different subject areas. This means that institutions with high levels of research activity in subjects with traditionally high citation counts do not gain an unfair advantage. We have blended equal measures of a country-adjusted and non-country-adjusted raw measure of citations scores.

This metric is not used for five subjects where the number of papers produced globally is very low. These subjects are:

- History of Science and Technology
- Music and Dance Studies
- Drama and Film Studies
- Fine Arts
- Design

4. *International outlook (staff, students, research)*Proportion of international students

- This metric captures the proportion of international students on campus. International students are those whose nationality differs from the country where the institution is based. The metric is calculated as the total FTE number of international students divided by the total FTE number of students. This variable is normalised after calculation.

Proportion of international staff

- This metric captures the proportion of international academic staff on campus. International staff are those whose nationality differs from the country where the institution is based. The metric is calculated as the total FTE number of international academic staff divided by the total FTE number of academic staff. This variable is normalised after calculation.

International collaboration

- In the third international indicator, we calculate the proportion of an institution's total research journal publications that have at least one international co-author. The metric is generated by dividing the total subject weighted number of publications with at least one international co-author by the total subjected weighted number of publications. This accounts for an institution's subject mix.

5. *Industry income (knowledge transfer)*

An institution's ability to help industry with innovations, inventions and consultancy has become a core mission of the contemporary global academy. This category suggests the extent to which businesses are willing to pay for research and an institution's ability to attract funding in the commercial marketplace – useful indicators of institutional quality. The indicator seeks to capture such knowledge-transfer activity by looking at how much research income an institution earns from industry (adjusted for PPP), divided by the total number of FTE academic staff it employs. This variable is normalised after calculation.

Weighting of Metrics

The metric weightings for each subject are calculated 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. In particular, those given to the research indicators 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, in addition for the five subjects noted above, the FWCI metric is not used either. The weights of these unused metrics are re-distributed to upweight all the remaining metrics by a constant ratio, bar the two Reputation metrics which remain static.

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, where we calculate a cumulative probability function, and evaluate where a particular institution's indicator sits within 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

Publication

These ratings will be published on the Times Higher Education website, <https://www.timeshighereducation.com/> Universities can be selected by Region/Country or looked at overall. Subjects can be viewed altogether, by subject pillar, by individual subject.

There are a number of ways to sort the universities, including alphabetically and by WUR grade. Users will also be able to sort by "Highest Rating", which ranks universities by average grade; where the average grades are equivalent they are ranked by number of subjects.

Where universities have the same grade in a subject, they will be shown in alphabetical order when sorting by grade.

Appendix – Subject Information

Subject Mappings

The ASJC mapping is available upon request

Subject		WUR Subject		Reputation Subject	
101	哲学	Philosophy	艺术与人文科学	Arts and Humanities	哲学 Philosophy
201	理论经济学	Theoretical economics	商业与经济学	Business and Economics	经济学与计量经济学 Economics and Econometrics
202	应用经济学	Applied economics	商业与经济学	Business and Economics	会计与金融学 Accounting and Finance
302	政治学	Political Science	社会科学	Social Sciences	政治与国际研究 Politics and International Studies
303	社会学	Sociology	社会科学	Social Sciences	社会学 Sociology
304	民族学	Ethnology	社会科学	Social Sciences	社会学 Sociology
401	教育学	Education	教育学	Education	教育学 Education
402	心理学	Psychology	心理学	Psychology	心理学 Psychology
403	体育学	Physical Education	教育学	Education	运动科学 Sports Science
502	外国语言文学	Foreign language & literature	艺术与人文科学	Arts and Humanities	文学 Literature
503	新闻传播学	Media/ Communications/ Journalism	社会科学	Social Sciences	传播学与媒体研究 Communication and Media Studies
601	考古学	Archaeology	艺术与人文科学	Arts and Humanities	考古学 Archaeology
603	世界史	World History	艺术与人文科学	Arts and Humanities	历史学 History
701	数学	Mathematics	理学	Physical Sciences	数学与统计学 Mathematics and Statistics
702	物理学	Physics	理学	Physical Sciences	物理与天文学 Physics and Astronomy
703	化学	Chemistry	理学	Physical Sciences	化学 Chemistry
704	天文学	Astronomy	理学	Physical Sciences	物理与天文学 Physics and Astronomy
705	地理学	Geography	理学	Physical Sciences	地理学 Geography
706	大气科学	Atmospheric sciences	理学	Physical Sciences	地球与行星科学 Earth and Planetary Sciences
707	海洋科学	Marine sciences	理学	Physical Sciences	海洋科学 Marine Science
708	地球物理学	Geophysics	理学	Physical Sciences	地质与环境科学 Geology and Environmental Science

709	地质学	Geology	理学	Physical Sciences	地质与环境科学	Geology and Environmental Science
710	生物学	Biology	生命科学	Life Sciences	生物科学	Biological Sciences
711	系统科学	Systems Sciences	理学	Physical Sciences	数学与统计学	Mathematics and Statistics
712	科学技术史	History of Science and Technology	艺术与人文科学	Arts and Humanities	历史学	History
713	生态学	Ecology	理学	Physical Sciences	地质与环境科学	Geology and Environmental Science
714	统计学	Statistics	理学	Physical Sciences	数学与统计学	Mathematics and Statistics
801	力学	Mechanics	工学	Engineering	机械与航空航天工程	Mechanical and Aerospace Engineering
802	机械工程	Mechanical Engineering	工学	Engineering	机械与航空航天工程	Mechanical and Aerospace Engineering
803	光学工程	Optical Engineering	工学	Engineering	通用工程	General Engineering
804	仪器科学与技术	Instrument/Meter Science & Technology	工学	Engineering	通用工程	General Engineering
805	材料科学与工程	Materials Science & Engineering	工学	Engineering	通用工程	General Engineering
806	冶金工程	Metallurgical Engineering	工学	Engineering	通用工程	General Engineering
807	动力工程及工程热物理	Power Engineering Thermophysics	工学	Engineering	土木工程	Civil Engineering
808	电气工程	Electrical Engineering	工学	Engineering	电气与电子工程	Electrical and Electronic Engineering
809	电子科学与技术	Electronic Science and Technology	工学	Engineering	电气与电子工程	Electrical and Electronic Engineering
810	信息与通信工程	Information and Communication Engineering	计算机科学	Computer Science	计算机科学	Computer Science
811	控制科学与工程	Control Science and Engineering / Automation Science and Engineering	工学	Engineering	电气与电子工程	Electrical and Electronic Engineering
812	计算机科学与技术	Computer Science and Technology	计算机科学	Computer Science	计算机科学	Computer Science
813	建筑学	Architecture	工学	Engineering	建筑学	Architecture
814	土木工程	Civil Engineering	工学	Engineering	土木工程	Civil Engineering
815	水利工程	Water / Irrigation Engineering	理学	Physical Sciences	地质与环境科学	Geology and Environmental Science
816	测绘科学与技术	Surveying and mapping science & technology	理学	Physical Sciences	数学与统计学	Mathematics and Statistics

817	化学工程与技术	Chemical Engineering & technology	工学	Engineering	化学工程	Chemical Engineering
818	地质资源与地质工程	Geological resources and geological engineering	理学	Physical Sciences	地质与环境科学	Geology and Environmental Science
819	矿业工程	Mining Engineering	工学	Engineering	通用工程	General Engineering
820	石油与天然气工程	Oil and gas engineering	工学	Engineering	通用工程	General Engineering
821	纺织科学与工程	Textile Science and Engineering	工学	Engineering	通用工程	General Engineering
822	轻工技术与工程	Light Industry Technology and Engineering	工学	Engineering	通用工程	General Engineering
823	交通运输工程	Transport Engineering	工学	Engineering	通用工程	General Engineering
824	船舶与海洋工程	Naval Architecture and Ocean Engineering	工学	Engineering	通用工程	General Engineering
825	航空宇航科学与技术	Aerospace Science and Technology	工学	Engineering	机械与航空航天工程	Mechanical and Aerospace Engineering
827	核科学与技术	Nuclear Science and Technology	工学	Engineering	通用工程	General Engineering
828	农业工程	Agricultural Engineering	工学	Engineering	其他工学学科	Other Engineering subject
829	林业工程	Forestry Engineering	工学	Engineering	其他工学学科	Other Engineering subject
830	环境科学与工程	Environmental Science and Engineering	工学	Engineering	地质与环境科学	Geology and Environmental Science
831	生物医学工程	Biomedical engineering	工学	Engineering	通用工程	General Engineering
832	食品科学与工程	Food science and engineering	工学	Engineering	其他工学学科	Other Engineering subject
833	城乡规划学	Urban and Rural Planning	艺术与人文科学	Arts and Humanities	建筑学	Architecture
834	风景园林学	Landscape Architecture	艺术与人文科学	Arts and Humanities	建筑学	Architecture
835	软件工程	Software Engineering	计算机科学	Computer Science	计算机科学	Computer Science
836	生物工程	Biological Engineering	工学	Engineering	化学工程	Chemical Engineering
837	安全科学与工程	Safety Science and Engineering	工学	Engineering	通用工程	General Engineering
901	作物学	Crop science	生命科学	Life Sciences	农学与林学	Agricultural and Forestry
902	园艺学	Horticulture	生命科学	Life Sciences	农学与林学	Agricultural and Forestry

903	农业资源与环境	Agricultural Resources and Environment	生命科学	Life Sciences	农学与林学	Agricultural and Forestry
904	植物保护	Plant protection	生命科学	Life Sciences	农学与林学	Agricultural and Forestry
905	畜牧学	Animal husbandry	生命科学	Life Sciences	农学与林学	Agricultural and Forestry
906	兽医学	Veterinary Science	生命科学	Life Sciences	兽医学	Veterinary Sciences
907	林学	Forest Science / Forestry	生命科学	Life Sciences	农学与林学	Agricultural and Forestry
908	水产	Aquatic Production / Aquatic Science	生命科学	Life Sciences	农学与林学	Agricultural and Forestry
909	草学	Grass Science / Turf Grass Science	生命科学	Life Sciences	农学与林学	Agricultural and Forestry
1001	基础医学	basic medicine / Medical Science	临床与卫生学	Clinical and Health	医学	Medicine
1002	临床医学	Clinical Medicine	临床与卫生学	Clinical and Health	医学	Medicine
1003	口腔医学	Stomatology	临床与卫生学	Clinical and Health	牙医学	Dentistry
1004	公共卫生与预防医学	Public Health and Preventive Medicine	临床与卫生学	Clinical and Health	医学	Medicine
1007	药学	Pharmacy	临床与卫生学	Clinical and Health	健康职业学	Health Professions
1010	医学技术	Medical Technology	临床与卫生学	Clinical and Health	其他健康科学学科	Other Health Sciences subject
1011	护理学	Nursing	临床与卫生学	Clinical and Health	护理学	Nursing
1201	管理科学与工程	Management Science and Engineering	商业与经济学	Business and Economics	商业与管理学	Business and Management
1202	工商管理	Business Administration	商业与经济学	Business and Economics	商业与管理学	Business and Management
1203	农林经济管理	Agriculture and Forestry Economic Management	社会科学	Social Sciences	地理学	Geography
1204	公共管理	Public Administration	社会科学	Social Sciences	社会学	Sociology
1205	图书情报与档案管理	Library Information and Archives Management	社会科学	Social Sciences	图书馆与情报学	Library and Information Science
1301	艺术学理论	Art Theory	艺术与人文科学	Arts and Humanities	艺术与设计学	Art and Design
1302	音乐与舞蹈学	Music and Dance Studies	艺术与人文科学	Arts and Humanities	表演艺术	Performing arts
1303	戏剧与影视学	Drama and Film Studies	艺术与人文科学	Arts and Humanities	表演艺术	Performing arts
1304	美术学	Fine Arts	艺术与人文科学	Arts and Humanities	艺术与设计学	Art and Design

1305	设计学	Design	艺术与人文 科学	Arts and Humanities	艺术与设计学	Art and Design
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Metric Weights and Minimum number of academic papers required for each subject

Subject	Min Papers	c1	e1	i1	i2	i3	r1	r2	r5	t1	t2	t5
101	30	0.175	0.029	0.029	0.029	0.029	0.300	0.044	0.044	0.253	0.044	0.022
201	100	0.274	0.027	0.033	0.033	0.033	0.228	0.054	0.054	0.211	0.036	0.018
202	30	0.274	0.027	0.033	0.033	0.033	0.228	0.054	0.054	0.211	0.036	0.018
302	30	0.282	0.028	0.028	0.028	0.028	0.228	0.055	0.055	0.211	0.037	0.018
303	100	0.282	0.028	0.028	0.028	0.028	0.228	0.055	0.055	0.211	0.037	0.018
304	30	0.282	0.028	0.028	0.028	0.028	0.228	0.055	0.055	0.211	0.037	0.018
401	100	0.306	0.028	0.028	0.028	0.028	0.200	0.054	0.054	0.200	0.050	0.024
402	100	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
403	30	0.306	0.028	0.028	0.028	0.028	0.200	0.054	0.054	0.200	0.050	0.024
502	30	0.175	0.029	0.029	0.029	0.029	0.300	0.044	0.044	0.253	0.044	0.022
503	30	0.282	0.028	0.028	0.028	0.028	0.228	0.055	0.055	0.211	0.037	0.018
601	30	0.175	0.029	0.029	0.029	0.029	0.300	0.044	0.044	0.253	0.044	0.022
603	30	0.175	0.029	0.029	0.029	0.029	0.300	0.044	0.044	0.253	0.044	0.022
701	100	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
702	100	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
703	100	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
704	30	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
705	100	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
706	30	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
707	30	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
708	30	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
709	30	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
710	100	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
711	100	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
712	5	0.000	0.048	0.048	0.048	0.048	0.300	0.073	0.073	0.253	0.073	0.036
713	30	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
714	30	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
801	30	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
802	100	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
803	100	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
804	30	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
805	100	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
806	30	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
807	30	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
808	100	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
809	100	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
810	100	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
811	30	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
812	100	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
813	30	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017

814	30	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
815	30	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
816	30	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
817	100	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
818	30	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
819	30	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
820	30	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
821	30	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
822	30	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
823	30	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
824	30	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
825	30	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
827	30	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
828	100	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
829	30	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
830	100	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
831	30	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
832	30	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
833	100	0.175	0.029	0.029	0.029	0.029	0.300	0.044	0.044	0.253	0.044	0.022
834	30	0.175	0.029	0.029	0.029	0.029	0.300	0.044	0.044	0.253	0.044	0.022
835	100	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
836	30	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
837	30	0.306	0.056	0.028	0.028	0.028	0.210	0.050	0.050	0.195	0.033	0.017
901	30	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
902	30	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
903	30	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
904	30	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
905	30	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
906	30	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
907	30	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
908	30	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
909	30	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
1001	100	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
1002	100	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
1003	30	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
1004	30	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
1007	100	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
1010	30	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015
1011	30	0.383	0.027	0.027	0.027	0.027	0.193	0.045	0.045	0.179	0.031	0.015

1201	30	0.274	0.027	0.033	0.033	0.033	0.228	0.054	0.054	0.211	0.036	0.018
1202	100	0.274	0.027	0.033	0.033	0.033	0.228	0.054	0.054	0.211	0.036	0.018
1203	30	0.282	0.028	0.028	0.028	0.028	0.228	0.055	0.055	0.211	0.037	0.018
1204	30	0.282	0.028	0.028	0.028	0.028	0.228	0.055	0.055	0.211	0.037	0.018
1205	30	0.282	0.028	0.028	0.028	0.028	0.228	0.055	0.055	0.211	0.037	0.018
1301	30	0.175	0.029	0.029	0.029	0.029	0.300	0.044	0.044	0.253	0.044	0.022
1302	5	0.000	0.048	0.048	0.048	0.048	0.300	0.073	0.073	0.253	0.073	0.036
1303	5	0.000	0.048	0.048	0.048	0.048	0.300	0.073	0.073	0.253	0.073	0.036
1304	5	0.000	0.048	0.048	0.048	0.048	0.300	0.073	0.073	0.253	0.073	0.036
1305	5	0.000	0.048	0.048	0.048	0.048	0.300	0.073	0.073	0.253	0.073	0.036