

Report on Score Comparability and Contextual Indicators



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Introduction

In order to promote fairer offers and simplify the assessment of overseas university applications, Project Access International has compiled a brief summary of the educational and examination systems of fourteen countries, namely: Austria, Brazil, China, Denmark, France, Finland. Germany, India, Italy, Malaysia, Norway, Poland, Singapore, Sweden and the United States.

The individual country reports contain information about the various educational tracks a student can take within the country; and the difficulty of achieving certain grades, based on the number of students who achieve a certain grade or percentage. Whilst this may not provide an objective or absolute comparison between the various countries and systems, it will at least give an indication of the amount of work put in by each applicant. Unfortunately, the data for some of the countries was unavailable for us to access, and in place of that we have endeavoured to provide other information relevant to a university selection process.

Furthermore, this year, Project Access has included contextual indicators from the aforementioned countries, which indicate whether an individual student is considered disadvantaged in the context of his/her country. This new addition would hopefully aid universities in making contextual offers to disadvantaged international students in the future, in light of the current move towards contextual offers for disadvantaged students who are based in the UK.

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Austria

Education System

Primary Education

Children reaching the age of 6 prior to 31st August of a given year are required to attend school from 1st September of that year and must go to school. Early admission is possible if the child is deemed ready for school. Primary School lasts four years and there is the option to attend a pre-school year. Upon completion, students progress into the next stage of education.¹

Secondary Education

Secondary education is termed Secondary Level I, while pre-university education is termed Secondary Level II. For Secondary Level I, there are two types of schools:

The New Secondary School (NMS)²

The New Secondary School has been the regulatory form of education since 1st September 2012. Since the 2018/2019 school year, all former Lower Secondary Schools have become New Secondary Schools. By creating a broad, legally-assured foundation, it has been possible to create a single type of school for all children aged between 10 and 14 years, after completing 4 years in the Primary School. Pupils may transfer from the Academic Secondary School Lower Level (AHS) to the NMS. All-day education is offered at many New Secondary Schools. Upon completion, students attend a more advanced medium level or upper level school or a pre-vocational school.

The Academic Secondary School (AHS) (Lower Level) ³

Education at the Academic Secondary School lasts for an overall period of 8 years and is divided into a lower (years 5 to 8) and an upper (years 9 to 12) level. The purpose of an Academic Secondary School is to impart a broad and extended general education, thereby providing pupils with standard entry qualifications for university and a solid basis for more specialised education or training – in post-secondary courses, at post-secondary colleges, '*Fachhochschul*'-courses (courses from a University of Applied Sciences), or on the job.

¹ Austrian Federal Ministry of Education, Science and Research. (n.d.). *Elementary School.* Available at: https://www.bmbwf.gv.at/Themen/schule/schulsystem/sa/vs.html

² Austrian Federal Ministry of Education, Science and Research. (n.d.). *New Middle School.* Available at: https://www.bmbwf.gv.at/Themen/schule/schulsystem/sa/nms.html

³ Austrian Federal Ministry of Education, Science and Research. (n.d.). *General Secondary School (AHS)*. Available at: https://www.bmbwf.gv.at/Themen/schule/schulsystem/sa/ahs.html

A pre-condition for admission in to the 1st year of the lower level is the successful completion of year 4 of the Primary School, which means having obtained a 'Very good' or 'Good' grade in German, Reading and Mathematics. Alternatively, the teaching staff of the Primary School must have determined that despite having only obtained a 'Satisfactory' grade in these compulsory subjects, the pupil will be able to satisfy the requirements of the Academic Secondary School by virtue of his/her other achievements. A further alternative would involve the pupil sitting an entry examination.

There are four types of AHS:

- Gymnasium: with a special focus on languages, humanities and the arts
- Realgymnasium: with a special focus on natural sciences and mathematics
- *Wirtschaftskundliches Realgymnasium:* with a special focus on economics and life skills (including practical elements)
- **Oberstufenrealgymnasium:** (only in the upper level) with a special focus on natural sciences and mathematics; only comprises years 9 to 12 and may be attended after successful completion of the 4th year of a secondary school.

Pre-university Education

The pre-university education system (Secondary Level II) in Austria is divided into 3 main tracks:

AHS⁴

Students in AHS will study for their pre-university education for 4 years (upper level only) or 8 years (upper and lower level). In certain cases, the upper level can take 5 years, before taking the *Reifeprüfung⁵* at the end of their final year (or in earlier years of pre-university education if applicable).

From year 6 onwards, pupils are required to select optional subjects for a total of six hours per week (Classical Academic Secondary School, Upper Secondary Academic School), eight hours per week (*Realgymnasium*) or ten hours per week (Academic Secondary School emphasizing Economics). The total number of hours devoted to optional subjects may, however, vary from school to school (from a minimum of four hours to a maximum of ten hours).

Within a given framework and in both the upper and lower levels, each school has the ability to align the range of subject areas taught to the specific situation that exists in its own establishment (autonomy of schools). It is also permitted to issue its own syllabi.

⁴ Ibid.

⁵ *Reifeprüfung* is the official term for *Matura* in Austria - both refer to the secondary school exit exam.

From the academic year 2017/18 onwards, starting with year 6, a semester-wise breakdown of all forms of upper level Academic Secondary Schools was launched, to allow for the individualisation of educational paths with individual learning support and special talent promotion. This means that with the new upper level (NOST), the focus is now on the individual semester as a 'unit of measurement'. The basic idea is that the learning material is divided into modules each comprising one semester. This means that all subjects must be successfully completed in both the first and second semesters. Students receive a teacher as an individual learning companion who is supposed to support them, and advanced training for teachers is currently being offered. A 'fail' in a module can be corrected by a semester exam. At the same time, positive partial achievements made in a semester are not 'lost'. The semester exam only covers the part of the material that has not been mastered. It can be repeated twice in total. The student can move up to the next class with a maximum of two negative modules in the semester reports. However, these must then be made up for before starting the Matura. Once in the course of the upper level, it is possible to advance to the next level with three 'insufficient' or non-assessments, provided that the class conference so decides. In the case of repeat grades, positive results are retained.

Transition from the New Secondary School, following successful completion of the 4th year, to the 5th year of the Academic Secondary School or the 1st year of the Upper Level Academic Secondary School emphasising Mathematics and Science (ORG) is possible, and if the following conditions are met: (1) the pupil was in the top stream in the 4th year in German, Mathematics and a Modern Foreign Language and achieved a positive grade in all subjects; or (2) was in the second stream and received a grade of 'Good' or higher and if he/she obtained a grade of 'Satisfactory' or higher in all other compulsory subjects; or (3) if he/she received the annotation 'with outstanding success' on his/her leaving report.

BMHS⁶

BMHS is split into: (1) Colleges for higher vocational education - *Berufsbildende Höhere Schulen* (BHS), colleges for early childhood pedagogy and colleges for social pedagogy, and (2) School for Intermediate Vocational Education (BMS).

Colleges for higher vocational education (BHS), colleges for early childhood pedagogy and colleges for social pedagogy

Students in BHS will study for their pre-university education for 5 years, before taking the *Reife-und Diplomprüfung* (standardised maturity and diploma examination) at the end of their final year (or in earlier years of pre-university education if applicable).

⁶ Austrian Federal Ministry of Education, Science and Research. (n.d.). *Vocational Middle and High Schools.* Available at: https://www.bmbwf.gv.at/Themen/schule/schulsystem/sa/bmhs.html

In addition to an in-depth general education, the 5-year course in an Upper Level Secondary Technical and Vocational School also provides a higher level of vocational training and concludes with a *Reifeprüfung* and Diploma examination. If successfully achieved, the *Reifeprüfung* and Diploma examination entitles a young person to undertake a course of study at a University, a University of Applied Sciences or a University College of Teacher Education, whilst the Diploma examination provides access to legally regulated professions in accordance with the Trade and Industry Code.

The recognition of relevant knowledge held by young people who have completed the Upper Level Secondary Technical and Vocational School is legally prescribed; entitlements under the Engineers Act will apply to the graduates of the majority of Upper Level Technical and Agricultural Schools.

Colleges for early childhood pedagogy (*Bildungsanstalten für Elementarpädagogik*) and colleges of social pedagogics colleges (*Bildungsanstalten für Sozialpädagogik*) are similarly structured but legally not considered as colleges for higher vocational education (BHS)

The following opportunities are examples of those available to young people who successfully complete their education at an Upper Level Secondary Technical and Vocational School:

- · Immediate employment in a specialist area
- Undertaking a course of study at a University, University of Applied Sciences, University of Teacher Education or another type of higher education institution
- Apprenticeship Examination (successful completion of the Upper Level Secondary Technical and Vocational School will replace the time spent training for related professions, or will enable that time to be reduced)
- Undertaking a Post-secondary VET Course in a different specialist area
- After practising a relevant profession: self-employment in a regulated profession (if necessary, after completing a qualifying examination)
- Self-employment in an unregulated trade

The BHS yet again split into many subtypes, but describing them would go beyond the scope of this report.

School for Intermediate Vocational Education (BMS)

Students in BMS will study for their pre-university education for 1 to 4 years.

Attending a BMS for 1 or 2 years will provide a partial vocational training, whilst attending for 3 or 4 years, including a final examination, will provide a completed programme of vocational training. Young people completing this type of educa-

tion will be subject to the relevant entitlements laid down in the Trade and Industry Code (*Gewerbeordnung*).

After completing a period of at least 3 years at the BMS, young people will take additional courses (for 3 years), leading to the *Reifeprüfung* and Diploma examination. Young people completing the 4-year BMS are able to attend special forms of trade-relevant Post-secondary VET Courses.

In addition to taking up a post of employment in a particular specialist area, there is also a variety of opportunities to obtain higher level qualifications and undertake further training:

- · Immediate employment in a specialist area
- An Add-on Course in the relevant specialist area, in order to obtain the Higher Education Entrance Examination or Diploma examination
- Higher Education Entrance Examination
- Post-secondary VET Course for young people who have completed 4 years at the School for Intermediate Vocational Education (BMS)
- The Apprenticeship Examination (in training professions in the young person's own specialist area, he/she will mostly be granted exemptions by virtue of the period of training already spent, whilst in related training professions, periods of training already spent will be credited)
- Limited Higher Education Entrance Qualification
- Attendance at a University of Applied Sciences, based upon evidence of professional practice

The BMS yet again split into many subtypes, but describing them would go beyond the scope of this report.

BS (Vocational Schools) - part-time vocational schools and apprenticeship⁷

An apprenticeship offers young people (mostly aged between 15 and 19 years) with a solid vocational training in one of around 200 training professions. The apprenticeship is the right choice for all those who prefer to follow a practical-ly-based programme of training in a workplace (involving working in a company setting). Trainees spend around 20-25% of their apprenticeship in the technical or vocational school, where they acquire the theoretical knowledge required in their profession.

⁷ Austrian Federal Ministry of Education, Science and Research. (n.d.). *School.* Available at: https://www.bmbwf.gv.at/Themen/schule/schulsystem/sa/bs.html; Austrian Federal Ministry of Digital and Economic Affairs. (n.d.). *Apprenticeship and vocational training*. Available at: https:// www.bmdw.gv.at/Themen/Lehre-und-Berufsausbildung.html; Austrian Federal Ministry of Education, Science and Research. (n.d.). *Professional School*. Available at: https://www.bmbwf.gv.at/ Themen/schule/schulsystem/sa/bs.html

Admission to an apprenticeship takes place once a young person has completed 9 years of compulsory education. Successful completion of the New Secondary School, Polytechnic School of the 9th year at a different type of school is not compulsory, but will significantly increase the chances of obtaining an apprenticeship.

An apprenticeship is also an attractive option for young people who leave or complete their education at medium level or upper level schools and who wish to enter employment. In those cases, the duration of the apprenticeship may be shortened (generally by 1 year; in the case of training professions in one's own vocational area, possibly by longer than 1 year).

If a trainee attending the BS has achieved the teaching objective of the final year at the school, the Apprenticeship Examination will only consist of the practical component. Individuals who, upon completing their Apprenticeship Examination, wish to gain admission to a course of study at a university, will be able to do so by completing the Higher Education Entrance Examination. That examination consists of four parts (German, Mathematics, a Modern Foreign Language and the specialist area concerned).

In the context of an initiative of the Austrian Federal Ministry of Education, Science and Research to provide a facility for young people to pursue an apprenticeship and obtain a high school diploma, apprentices have an opportunity to attend preparatory courses leading to the Higher Education Entrance Examination. Three examination components can be taken during the period of the apprenticeship. The final examination then takes place once the young person is 19 years of age. The courses that enable trainees to obtain a high school diploma are provided free of charge.

The following opportunities are examples of those available to young people who successfully complete their education at the BS and their Apprenticeship:

- Immediate employment as a specialist worker in the training workplace or other workplace
- The Higher Education Entrance Examination can largely be completed during the apprenticeship (in line with the model 'apprenticeship and *Matura'*) Once a young person has passed the Higher Education Entrance Examination, he/she may attend a Post-secondary VET Course or take a course of study at a University of Applied Sciences, a University or a Teacher Training College.
- Attending further training courses or Upper Level Vocational Schools for Adults
- Attendance of a Master-Craftsperson, Foreperson and Construction Trades
 Course
- Taking an examination for the master craftsman's certificate or qualifying examination, followed by self-employment in a regulated trade
- · Self-employment in an unregulated trade

Value of Scores

Note: There seems to be no equivalent to GCSE O-Levels in Austria.

Reifeprüfung⁸

Note: The Reifeprüfung and Diploma examination includes the Reifeprüfung

	% of students passing with distinction (2019)	% of students passing with distinction (2018)	% of students passing with distinction (2017)
Reifeprüfung	15.9	15	15.8

Subject	% of students receiving a Sehr Gut ⁹ (2019)	% of students receiving a Sehr Gut (2018)	% of students receiving a Sehr Gut (2017)
German (written Exam)	20.2	19.5	19.7
Maths (written Exam)	8.1	8.8	14.2
English (written Exam)	23.1	24.6	22.2

A-level equivalent	Comparable Offer ¹⁰	Corresponding subject grades
AAA	1	A = Passed with excellent success (mit ausgezeichnetem erfolg bestanden)
AAB	1.5	A
ABB	1.8	A
BBB	2.0	B = Passed with good success (mit gutem erfolg bestanden)
BBC	2.2	В
BCC	2.4	В
ссс	2.6	C = Passed (bestanden)

⁸ Statistics Austria. (2020). *Graduates and Graduations*. Available at: https://www.statistik.at/ web_de/statistiken/menschen_und_gesellschaft/bildung/schulen/reife-_und_diplompruefungen/ index.html

⁹ *Sehr Gut* refers to 'very good' or 'distinction'

¹⁰ University of Brighton. (n.d.). *Austria: Academic* equivalences. Available at: https://www. brighton.ac.uk/international/study-with-us/your-country-info/austria-equivalences.aspx

Contextual Indicators¹¹

Geo-demographic Data

• Place of residence

Educational Background

- · Data on differences between genders and equality of chances
- Impact of personal, material and financial resources and their distribution within the education system

Socio-economic Status

- Education level of parents
- Income level of parents

Individual Circumstances

- Whether the student has a disability
- · Students whose parents have died

¹¹ Austrian Federal Ministry of Education, Science and Research. (2018). *Nationaler Bildungsbericht* Österreich 2018. Available at: https://www.bifie.at/wp-content/uploads/2019/04/ NBB_2018_Band1_v4_final.pdf; Austrian Federal Ministry of Education, Science and Research. (n.d.). *Aid Amount*. Available at: https://www.stipendium.at/studienfoerderung/studienbeihilfe/ hoehe-der-beihilfe/; Student Association at the University of Vienna. (n.d.). *How is the amount of study allowance calculated?* Available at: https://www.oeh.univie.ac.at/beratung/faqs/ wie-wird-die-hoehe-der-studienbeihilfe-errechnet

Brazil

Education System¹²

Primary Education

Primary education (*Ensino Fundamental*) is mandatory and lasts 9 years (6 to 14 years old). There is no exam at the end of it.

Secondary Education

Secondary education *(Ensino Médio)* is mandatory, lasts 3 years, and there is a final exam, the ENEM *(Exame Nacional do Ensino Médio)*, which is not mandatory. The student may get a certificate of conclusion without ENEM.

To be accepted at a university in Brazil, students must take an exam called the Vestibular. Some of them accept ENEM score instead. ENEM was initially created to evaluate the quality of schools in Brazil but now it is used as an admission exam to many universities in Brazil and a few in Europe and Canada. Vestibular results are also accepted in a few schools in Europe and Canada.

It is very important to understand that there are some countries in Europe that do not accept the Brazilian Secondary Education Diploma as sufficient for direct admission in their bachelor programs. A foundation year or additional exams are necessary. This is the case for the UK, as well as many programs in the Netherlands, Belgium, Germany, and others. The acceptance of the Brazilian Secondary Diploma varies from country to country, from university to university, and from programme to programme.

Average national score of ENEM per year (Math, Human sciences, Languages, Natural sciences. Max. score per section is 1000)

Knowledge Areas	2019	2018	2017	2016
Mathematics (Matemática)	523.1	535.5	518.5	489.5
Human Sciences (Ciências humanas)	508	569.2	519.3	533.5
Languages (Linguagens)	520.9	526.9	510.2	520.5

Vocational Education - Militar, State and Federal schools

These schools last 4 years and start right after the primary school. They replace the secondary education. In general, these school are the best ones in the public secondary education.

Note: Pre-university education is not applicable to Brazil

¹² Ministry of Education. (n.d.). Available at: https://www.gov.br/mec/pt-br

Value of Scores

In all these three types of education the scores go from 1 to 10 and the average score is 6. Since there is no final mandatory exam, there is no percentile achievement calculation.

In general, a good candidate has scores 8 or higher (out of 10) and ENEM higher than 600. That would be a 'B' student. A very good candidate had scores 9 our higher and ENEM 700 or higher. That would be an 'A' student.

Contextual Indicators

Educational Background

In general, underprivileged students go to public schools for primary education and secondary education. Public schools, in general, are not as good as private ones. When it comes to universities it is the opposite. In general, the public are the best ones.

Although the public schools for primary and secondary education are not very good, the Vocational Schools, sometimes called *Instituto Federal*, are very good. The best public schools are the vocational schools.

Socio-economic Status

Brazilian Economic Pyramid¹³



* 1 US dollar = BRL 5,29

The Brazilian Economic Pyramid shows the monthly income breakdown by socio-economic class. It also shows the percentage of families in Brazil that lie within each class, as well as the percentage of national wealth each class holds.

¹³ IBGE (Brazilian Institute of geography and Statistics). (2015). *Brazilian Economic Pyramid*. Available at: https://www.researchgate.net/figure/Figura-4-A-piramide-economica-brasileira-2015-de-acordo-com-os-dados-da-Pesquisa_fig4_321194607

China

Education System

China's education system follows the same track as many western counterparts where well-rounded education starts from the elementary stage. In elementary schools, Math, Science, Chinese as a native language, English as a second language, Physical Education, Arts, and Music are introduced to students. However, unlike English speaking countries, China's education is predominantly operated by school boards, and independent schools have only emerged and become trendy in major cities in recent years. There is no scholarship or financial aid in Chinese public education. However, families that qualify as low-income earners will be granted general financial aid by the government.

Primary Education

Starting from China's primary school education, a primary school consists of 6 grades from year 1 to year 6. Exams will be given at the end of each semester. An entrance exam will be taken towards the end of year 6, based on which middle schools will select their students. Nonetheless, more and more selective public schools, similar to English grammar schools, will conduct their own entrance exams to select their pupils who they deem as academically competent.

Secondary Education

Middle schools consist of students from year 7 to year 9 where students will study the nine core subjects: Maths, English (ESL), Chinese, Physics, Chemistry, History, Biology, Geography, and Civics and Politics, with the addition of Arts, Music, and IT. Similar to British students taking their GCSEs prior to entering the sixth form, in China, middle school graduates will take *Zhong Kao* (senior high school entrance exam) that will assess students' grasp of the nine core subjects. Music, Art, and Computer Science, although not assessed in the 3rd year, are usually assessed in the 2nd year, and the results of these subjects will be presented as letter grades or pass/fail. Some provinces also assess Physical Education at the end of the 3rd year.

Pre-university Education

Students continue to pursue their studies in the aforementioned nine core subjects. Senior high school consists of student bodies from year 10 to year 12, approximately the equivalent to the sixth form in the UK. Upon graduation, students will take *Gao Kao*, the high school graduation assessment, roughly the equivalent of A level. Chinese, ESL and Math are the cores that will be taken by every student, and students will have to take three additional subjects from the range: Chemistry, Biology, Physics, History, Politics and Geography.

Value of Scores

A student's ranking of his or her *Gao Kao* grade in the province will decide their enrolment in universities and colleges. The ranking gives universities a precise idea of where a student places within his or her province, much like how Australia's ATAR works. Universities and colleges will admit students who have previously applied to the school and have now fulfilled the requirement (i.e. the ranking).

The most renowned universities in China include Peking University, Tsinghua University, Remen University of China, Zhejiang University, Fudan University, Shanghai Jiaotong University, Nanking University, Wuhan University, Xi'an Jiaotong University, and University of Science and Technology of China.

In China, the most renowned universities are grouped into 985 group and 211 group, much like the UK's G5 and the US' Ivy League schools. As aforementioned, these universities offer spots for their students based on their ranking within their own province. Below is the chart of the percentage of students from each province who were admitted by the 985 group universities (1st tier) and the 211 group universities (2nd tier) over the past 3 years.

City or Province	2017	2018	2019	Average
Tianjin	5.81%	5.81%	5.81%	5.81%
Shanghai	5.33%	5.33%	5.33%	5.33%
Beijing	4.29%	4.29%	4.29%	4.29%
Jilin	3.56%	3.56%	3.56%	3.56%
Qinghai	3.02%	3.02%	3.02%	3.02%
Ningxia	2.31%	2.31%	2.31%	2.31%
Liaoning	2.30%	2.30%	2.30%	2.30%
Hubei	2.14%	2.14%	2.14%	2.14%
Chongqing	2.13%	2.13%	2.13%	2.13%
Heilongjiang	2.01%	2.01%	2.01%	2.01%
Fujian	2.01%	2.01%	2.01%	2.01%
Shanxi	1.88%	1.88%	1.88%	1.88%
Zhejiang	1.87%	1.87%	1.87%	1.87%
Tibet	1.73%	1.73%	1.73%	1.73%

Percentage of students in each province admitted to 985 group universities¹⁴

¹⁴ Sohu. (2017). Available at: https://www.sohu.com/a/252217672_334498; Sohu. (2018). Available at: https://www.sohu.com/a/233621344_186389; Baidu. (2019). Available at: https:// tieba.baidu.com/p/6752303562?traceid=

Xinjiang	1.67%	1.67%	1.67%	1.67%
Jiangxi	1.55%	1.55%	1.55%	1.55%
Inner Mongolia	1.54%	1.54%	1.54%	1.54%
Hebei	1.48%	1.48%	1.48%	1.48%
Sichuan	1.47%	1.47%	1.47%	1.47%
Shandong	1.47%	1.47%	1.47%	1.47%
Gansu	1.47%	1.47%	1.47%	1.47%
Yunan	1.35%	1.35%	1.35%	1.35%
Guangxi	1.34%	1.34%	1.34%	1.34%
Guangdong	1.32%	1.32%	1.32%	1.32%
Shanxi	1.30%	1.30%	1.30%	1.30%
Guizhou	1.19%	1.19%	1.19%	1.19%
Henan	1.14%	1.14%	1.14%	1.14%
Jiangsu	1.41%	1.14%	1.14%	1.14%
Anhui	1.10%	1.10%	1.04%	1.08%

Percentage of students in each province admitted to 211 group universities¹⁵

Province or City	2017	2018	2019	Average
Beijing	13.99%	13.99%	14.00%	13.99%
Shanghai	13.58%	13.58%	13.60%	13.59%
Tibet	12.77%	12.77%	12.80%	12.78%
Tianjin	12.68%	12.68%	12.70%	12.69%
Qinghai	11.66%	11.66%	11.70%	11.67%
Jilin	8.95%	8.95%	9.00%	8.97%
Ningxia	8.56%	8.56%	8.60%	8.57%
Xinjiang	7.76%	7.76%	7.80%	7.77%
Heilongjiang	6.67%	6.67%	6.70%	6.68%
Jiangxi	6.46%	6.46%	6.50%	6.47%
Inner Mongolia	6.03%	6.03%	6.00%	6.02%
Liaoning	5.93%	5.93%	5.90%	5.92%
Shanxi	5.67%	5.67%	5.70%	5.68%
Chongqing	5.38%	5.38%	5.40%	5.39%
Fujian	5.37%	5.37%	5.40%	5.38%

15 Ibid.

Guizhou	5.17%	5.17%	5.20%	5.18%
Hubei	5.16%	5.16%	5.20%	5.17%
Shanxi	4.67%	4.67%	4.70%	4.68%
Hunan	4.53%	4.53%	4.50%	4.52%
Yunan	4.50%	4.50%	4.50%	4.50%
Sichuan	4.44%	4.44%	4.40%	4.43%
Shandong	4.44%	4.44%	4.40%	4.43%
Hebei	4.42%	4.42%	4.40%	4.41%
Zhejiang	4.40%	4.40%	4.40%	4.40%
Henan	4.15%	4.15%	4.10%	4.13%
Anhui	4.10%	4.10%	4.10%	4.10%
Guangxi	4.61%	2.74%	4.60%	3.98%
Gansu	3.50%	3.50%	3.50%	3.50%
Guangdong	2.74%	2.74%	2.70%	2.73%

Denmark

Education System

Primary Education

Danish primary school includes 1 year of preschool normally starting at the age of 5 or 6 and finishing by the 6th grade when the student is normally aged 11-12. There are no examinations in the Danish primary school system. However, students will have to partake in a handful of ungraded national tests throughout their education, which tests them in the following subjects: Danish, Maths, English, and Physics/Chemistry. Subjects taught in all years are Danish and Maths; with English, Music, Art, P.E., Nature/Technologies, and Religious Studies starting in grade 1; History in grade 3; French or German in grade 5.

Secondary Education

Denmark's primary and secondary school education are carried out within one school compound, *grundskolen*. It includes both the preschool grade and grade levels 1-9, with the 7-9th grade constituting secondary school education. In some schools, a 10th grade is also available for those who wish to stay on for 1 more year in secondary school, before deciding on what to do for their next level of education. Pupils in secondary school are usually aged 12-15 or 16 if they are in the 10th grade.

New subjects taught in secondary school are Social Studies, Chemistry & Physics, Biology and Geography. An elective subject may also be chosen, and some of these include Drama, Music, Art and to Media Studies, Cooking or Design.

Students receive marks from grade 8 onwards, on a scale of 7 grades. Although grade expectations will change over the years, this grading system remains the same for secondary schools, high schools, and university education.¹⁶

Grade	ECTS-equivalent
12 - the outstanding presentation	A
10 - the excellent presentation	В
7 - the good presentation	С
4 - the fair presentation	D
02 - the adequate presentation	E
00 - the inadequate presentation	Fx
-3 - the poor presentation	F

Note: The grades 00 and -3 are failing grades.

¹⁶ Ministry of Children and Education. (n.d.). *Studenters karakterer fordelt på fag.* Available at: https://uddannelsesstatistik.dk/Pages/Reports/1665.aspx

At the end of grade 9, students will have to complete a mix of seven oral and written exams. To be accepted into a high school following their secondary education, a student will need to attain a GPA of at least 5.0 for the year's work and their exams. However, these exams are not quite comparable to British GCSEs in their level, but are instead considered to be a level below.¹⁷ The exams taken in the 10th grade are however comparable to British GCSEs.¹⁸ Additionally, to be accepted into a high school, a statement from the school's education councillor deeming the pupil ready for higher education will often be needed.

Pre-university Education

Pre-university education takes place in three different types of high schools: STX, a more universal type of high school, the more business-focused HHX and HTX which focusses on natural sciences and is new technologies-based. In all three types of schools, education takes place over 3 years and is concluded with a mix of ten oral and written exams.

There is also a fourth option of Danish pre-university education. This is the HF, a 2-year high school where only the most essential subjects are studied and over a shorter period of time. The main difference from the normal 3-year high school education is that the HF does not provide the same space for electives or specialisation of your interests. However, it is important to note that it still results in a high school certificate and provides entry to UK university courses as acknowledged by UCAS in 2014.

For STX, HHX and HTX, a student can only graduate if they have studied at least four subjects at the A-level. An A-level subject is one studied for a 3-year duration throughout high school, whereas B-level subjects are studied for 2 years and C-level subjects for 1 year. It is possible to study more than four A-level subjects. For every A-level subject, the student will have to complete at least one exam, either in oral or written form (sometimes both), for their chosen subject. A student who partook in five or six A-level subjects will thus have to complete one to two exams more than their peers.

For STX, the more common A-level subjects are English, Spanish/German/ French, Social Studies, Chemistry, Maths or Physics. For HHX, the more common A-levels are English, International Economy, Business Economy, Maths

¹⁷ UCAS. (2014). International Qualifications for Entry to University or College in 2015.

¹⁸ Austrian Federal Ministry of Education, Science and Research. (2018). *Nationaler Bildungsbericht* Österreich 2018. Available at: https://www.bifie.at/wp-content/uploads/2019/04/ NBB_2018_Band1_v4_final.pdf; Austrian Federal Ministry of Education, Science and Research. (n.d.). *Aid Amount*. Available at: https://www.stipendium.at/studienfoerderung/studienbeihilfe/ hoehe-der-beihilfe/; Student Association at the University of Vienna. (n.d.). *How is the amount of study allowance calculated?* Available at: https://www.oeh.univie.ac.at/beratung/faqs/ wie-wird-die-hoehe-der-studienbeihilfe-errechnet

or Marketing. For HTX, the more common A-levels are Technology, Maths, Physics, Chemistry, Biotechnology or Communication/IT.

The different subjects and their level will determine the outcome of the students' weighted GPA. An A-level subject will have a weight of 2, a B-level 1.5 and C-level 1. Where the subject has both a written and oral component, each component will take up half of the subject's total weight (ex. an A-level written English exam will be weighted 1 and its oral counterpart 1 as well.) The final GPA that the student leaves high school with is the <u>sole</u> determining factor in the most common application procedures for Danish universities.¹⁹

Value of Scores

Averag	e GPA	for	exams ²	20

	2017	2018	2019
STX	7.4	7.4	7.4
ннх	6.8	6.8	6.9
НТХ	7.4	7.5	7.5

Average result for exams by subject in 2019

	STX	ннх	нтх
Danish (written)	6.7	6.2	6.1
Danish (oral)	7.6	7.2	7.1
Maths (written)	6.9	6.4	5.8
Maths (oral)	7.1	7	6
Social Studies (written)	6.4	6.4	5.8
Social Studies (oral)	7.9	8.8	6
English (written)	6.6	5.9	6.8
English (oral)	7.8	7.2	8.3
Physics (written)	7	-	6.3
Physics (oral)	7.7	-	7.1

¹⁹ University of Brighton. (n.d.). *Austria: Academic equivalences*. Available at: https://www. brighton.ac.uk/international/study-with-us/your-country-info/austria-equivalences.aspx (i.e. Cojean, T. (2020). *How will the grade for BAC 2021 be calculated?* Available at: https://www. letudiant.fr/bac/bac-2021/article/comment-sera-calculee-la-note-du-bac-2021.html; Studyrama. (2019). *The coefficients of the BAC 2021 exams*. Available at: https://www.studyrama.com/reforme-du-bac/les-coefficients-des-epreuves-du-bac-2021-105018)

²⁰ Ministry of Children and Education. (n.d.). *Studenters karakterer.* Available at: https://uddannelsesstatistik.dk/Pages/Reports/1664.aspx

Distribution of GPA in the different types of high schools²¹

34,% 39,% 10,% Stx 6,% 39,% Htx 35.% 10,% 7,% Hhx 14 % 41.% 34.% 7,% 4,% Hf-enkeltfag 39,% 35,% 8,% 4,% Hf 22.0 44,% 28,% 4,% 2,% 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100% ■ 4 eller derunder ■4,1-7,0 ■7,1-10,0 ■ 10,1-11,0 Over 11

Translation remarks: '4 eller derunder' = 4 or below

Contextual Indicators

Educational Background

A student is accepted into a high school solely based on how far they live away from the school (and not how good their GPA is, as long as it above 5.0). In this way, it becomes harder to distinguish between an advantaged and disadvantaged high school – schools accept students by an egalitarian principle, and course material and exams are largely the same, as the Danish Ministry of Education has standardised it for both public and private schools. Most high schools in Denmark are public and the few that are private largely only differ in the fact that a student pays a small amount of tuition fees and that the school can pick its applicants even if they live far away, but, ultimately, these schools are still mostly supported by the money they receive from the state.

There is a small hatch to the Danish pre-university education system that on the surface might seem egalitarian. Some high schools are awarded the title of 'profile high schools': they are usually located in urban areas and are able to enrol students based on other criteria compared to normal high schools.²² One example is the Copenhagen-based high school *Rysensteen Gymnasium*, which is allowed to overlook the usual distance-principle in recruiting students, due to their international student profile. They can handpick students that have an international

²¹ Ministry of Children and Education. (n.d.). *Tabelnotat om studenternes eksamensresultater*. Available at: https://www.uvm.dk/statistik/gymnasiale-uddannelser/karakterer/karakterer-paa-de-gymnasiale-uddannelser

²² Jessen, B. (2017). *De dygtigste skoleelever søger tre bestemte gymnαsier*. Available at: https:// www.berlingske.dk/samfund/de-dygtigste-skoleelever-soeger-tre-bestemte-gymnasier

background from high school exchange years or perhaps those who have attended international primary or secondary school.

One could also mention schools that offer IB or IBB programmes. They accept students by the normal distance-principle, but they offer courses with exchanges or internships and an internationally standardised curriculum that make them aware of the opportunities awaiting them abroad.²³ Thus, to a certain extent, these students have an advantage compared to the average Danish student in the resources available to them were they to apply for a course at a non-Danish university.

²³ Durrani, A. (2017). *IB Diploma Prepares Students for Global Universities*. Available at: https:// www.usnews.com/education/best-global-universities/articles/2017-11-21/ib-diploma-prepares-students-for-global-universities; Niels Brock. (2020). *Det Internationale Gymnasium: HHX IBB*. Available at: https://nielsbrock.dk/handelsgymnasier/det-internationale-gymnasium/hhxibb

France

Education System

Primary Education

Parents are required by law to send their children to school by the age of 6, though many start school earlier in a 'pre-elementary' system. Primary education more generally is a 5-year process, with students going through the CP, CE1, CE, CM1, and CM2 classes – children are assessed throughout the year and need an average of 10/20 to continue on to the next year. Entry to primary schools is, for the most part, unrestricted; however, the proximity of one's residence to the chosen school(s) is considered in the state's allocation process. There is no final exam at the end of primary education.

Secondary Education

Entry to secondary education is not selective for public/state schools, except for special programmes such as the OIB/European class ('international' variants of the baccalaureate), or any sports or arts-related programme. As in primary school, students' proximity to their secondary school of choice is a key factor.

At the end of middle school (*college*), where students are most often at the age of 14/15, a series of exams known as the *brevet des collèges* takes place. It is necessary to pass these exams in order to continue on to high school (*lycée*); however, the vast majority pass (87.2% in 2018²⁴). Furthermore, insofar as a passing grade is achieved the exam has no lasting importance in the French system (at least compared to GCSE, for example, in the UK). After middle school, students continuing on to high school can choose from a variety of tracks – general, technological, and professional. The general track is the most traditionally academic, and tends to be the only study track accepted by top international universities such as those targeted by PA (hence why the other tracks will not be discussed in detail herein).

Pre-university Education

The pre-university education system in France works as follows:

High-School – General

High school in France is a 3-year process, at the end of which a series of exams is taken known as the baccalaureate. Up till the graduating cohort of 2021, students on the general study track chose between three different sub-tracks (*filières*):

²⁴ Ministry of National Education and Youth. (2019). *Repères et Références Statistiques*. Available at: https://cache.media.education.gouv.fr/file/2019/51/6/depp-rers-2019_1162516.pdf

- 'S' (Scientific)
- 'ES' (Social/Economic)
- 'L' (Literary)

These paths were in some respects similar to each other; with every student being obliged to study History, Geography, French, Philosophy, a secondary language, Physical Education and Biology/Chemistry (for an average of 10 modules per year, and between 25 and 30 hours of class a week – depending on which sub-track one chose). However, each sub-track saw each of these subjects taught at a different level – maths as part of the 'S' track, for instance, were considerably more advanced than those taught as part of 'ES'. The relative weighting of subjects with respect to one's final overall grade also varies depending on which track was chosen. Some subjects were also exclusive to a particular track; for example, only in 'ES' was it possible to study politics.

Beginning with the graduating cohort of 2021, the baccalaureate will be massively revamped – with a shift towards a 'common base' and continuous assessment, rather than solely based upon final examinations at the end of the 3 years.

Continuously assessed subjects will include History/Geography (one of which is compulsory), Living Languages (of which all students must study at least two), Science (compulsory in some form), Physical Education (compulsory), and a specialised subject chosen by each student (only to be studied during the second year of high school). Each of these continuously assessed subjects will have a coefficient of 5. History/Geography and Living Languages will be assessed based on students' academic grades at the end of years 1 and 3 of high school (*seconde* and *terminale*), while their grades in their second year (*première*) will not be taken into account. Science and the specialised subject will be assessed solely in the second year, while Physical Education will solely be assessed in the third year. School reports in the 2nd and 3rd years of high school will add up to a coefficient of 10.

Subjects which are not to be continuously assessed include French, Philosophy, and the two specialised subjects chosen by the student (unlike the previously mentioned one, these are to be studied throughout the 3 years of high school). French is to be assessed in the 2nd year of high school, with two sets of exams (one oral, one written) in June – each having a coefficient of 5. The two specialised subjects will be assessed by written exams in March of the final year, with each specialised subject bearing a coefficient of 16. Philosophy will be assessed through a written exam in June of the final year, and bears a coefficient of 8. Finally, the 'grand oral' is a 20-minute oral examination which can relate to either of the student's specialised subjects; it will take place in June of the final year, just like Philosophy, and will have a coefficient of 10.²⁵

Additional Note: The coronavirus crisis has precipitated an unexpectedly early

shift towards the system that will be in place from 2021, as the traditional June exams in 2020 have been cancelled. Assessment will instead be based on the principle of continuous assessment throughout the 3rd year of high school. Independent candidates not affiliated with an educational institution, and thus without school reports on which to base grades, will be allowed to take written exams in September 2020.²⁶

High School – Additional Options

Variants of the general baccalaureate exist – the most common of these is the OIB, a selective programme which enables students to delve further into a certain language (there are a wide variety of options available, from Norwegian to Japanese²⁷). History/Geography classes are also modified, with an increased focus on wherever home would be for speakers of the chosen language (there are, for instance, different British and American options). Schools offering this programme often require their students to maintain high grades throughout in order to continue with it; the extra exams and work imposed on those choosing the OIB mean that admissions offers from international universities are sometimes lower than for those offering the 'standard' baccalaureate.²⁸

École préparatoire/prépa

After high school, some students opt to attend a 2-year programme known as *prépa* (preparatory classes). This prepares students for entrance examinations for France's most prestigious institutions of higher education (*grandes écoles*). This is unlike the public university system, which is largely accessible with no restrictions to all those with a baccalaureate as long as there are enough places). The workload of the *prépa* programme is gruelling, and the 2-year programme is legally deemed equivalent to 120 ECTS credits – which can in turn be used transfer to a public university (where a dispensation from certain courses can often be granted) if a student fails their entrance examination.²⁹

²⁶ Bluteau, P. (2020). *The new terms of the general and technological BAC 2020*. Available at: https://www.letudiant.fr/bac/les-nouvelles-modalites-du-bac-general-et-technologique-2020. html

²⁷ Christ's College Cambridge. (n.d.). *Option Internationale du Baccalauréat (OIB)*. Available at: https://www.christs.cam.ac.uk/option-internationale-du-baccalaureat-oib

²⁸ The Good Schools Guide. (n.d.). *Option Internationale du Baccalauréat (OIB) Explained.* Available at: https://www.goodschoolsguide.co.uk/international/france/oib-the-option-internationale-du-baccalaurat-explained

²⁹ ISG International Business School. (2019). *The Preparatory Classes (CPGE)*. Available at: http://www.onisep.fr/Choisir-mes-etudes/Apres-le-bac/Organisation-des-etudes-superieures/ Les-classes-preparatoires-aux-grandes-ecoles-CPGE/Les-etudes-en-classes-preparatoires

Value of Scores

High-School – General

The tables below demonstrate average grades attained by a high school student under the current high school system. However, these are not necessarily an indicator of what grades should constitute an offer under the new post-2021 system. The current system has been in place since 1995, with some form of the filière model existing since 1968. It was therefore particularly well-established, and while the new reforms have been welcomed by some, it is not clear what their impacts will be on students' academic grades. The de-centralisation of the assessment process through the incorporation of school reports, for instance, means that having consistent assessment procedures across all schools will matter more than ever before – yet these are far from uniform, and there is concern that students at 'stricter' schools will be disadvantaged as a result.³⁰ Furthermore, continuous assessment itself is also a cause of concern for many students who have never experienced it. Polls carried out by Le Figaro, a national newspaper, suggest that a majority of students do not understand the reforms due to their complexity, and that a vast majority are concerned about the impact that the reforms will have on their abilities to achieve their potential.³¹ The prestige long granted to Mathematics within the French examination system has also been dented as this subject is no longer a compulsory constituent of the 'common core' of subjects, which has led to worries about a potential impact on grades as a result, as the educational system adjusts to the new status quo.³²

Many of these concerns are also relevant to the 2020 cohort, whose exams have been cancelled (as aforementioned), leading to continuous assessment, etc. being applied.

There are no clear databases reporting the scores of the top 5% of each academic cohort in France, as the results are classified by university. However, the baccalaureate is divided by *mentions* – the top students (around 10% to 15% in the general track) attain honours (*mention très bien*), which is equivalent to a score of approximately 16/20 overall (or more). In the normal path, the top 5% achieve scores approximately 17.5 to 18 out of 20.

³⁰ Etudiant, F. (2019). *The new BAC worries first graders 'in the dark'*. Available at: https://etudiant.lefigaro.fr/article/le-nouveau-bac-inquiete-les-eleves-de-premiere-dans-le-flou_488d1100ea75-11e9-92d3-e5ed71345a1f/

³¹ Lecuit, C. (2019). *BAC reform: students and parents worried*. Available at: https://etudiant. lefigaro.fr/article/reforme-du-bac-les-eleves-et-leurs-parents-sont-inquiets_c038a3ac-8ea1-11e9-851c-43ad92faf09a/

³² AFP Agency. (2019). *High school reform: the ministry gives details on the teaching of mathematics*. Available at: https://etudiant.lefigaro.fr/article/reforme-du-lycee-le-ministere-donne-des-precisions-sur-l-enseignement-des-mathematiques_76310cf2-5221-11e9-86b9-a9202586eca7/

These results also depend on the degree of difficulty of the specialised subjects the students take – some of them are introductory while others are at higher levels. For example, results have shown that among 'S' students who are of equal academic abilities in their penultimate year of high school, those who chose the Chemistry/Physics specialisation score slightly lower grades for their final exam, compared to their peers who chose the Biology specialisation. This is due to the level of expectation and rigour differing from subject to subject.

The specialisation a student chooses will add to the coefficient of the chosen module. Thus, required grades in a particular module slightly differ from specialisation to specialisation.

The tables below reflect students' concerns by showing the score (out of 20) required to place in the 95_{th} percentile for the most commonly taken subjects at an advanced level for each path; the number in parenthesis next to the subject name shows its coefficient.

Bac S - normal

Biology specialisation (higher levels)

Subject	% score required to place in the 95 th per- centile (2018)	% score required to place in the 95 th percen- tile (2017)	% score required to place in the 95 th per- centile (2016)
Mathematics (7)	17	17	16.5
Chemistry/Physics (6)	17	16.5	16
Biology (8)	18	17	17

Subject	% score required to place in the 95 th per- centile (2018)	% score required to place in the 95 th percen- tile (2017)	% score required to place in the 95 th per- centile (2016)
Mathematics (9)	18	18	17.5
Chemistry/Physics (6)	17	16	16
Biology (6)	17	17	17

Mathematics specialisation (higher levels)

Chemistry/Physics specialisation (higher levels)

Subject	% score required to place in the 95 th per- centile (2018)	% score required to place in the 95 th percen- tile (2017)	% score required to place in the 95 th per- centile (2016)
Mathematics (7)	18	17	17
Chemistry/Physics (8)	17	16	16
Biology (6)	18	17.5	17.5

Bac ES - normal

Subject	% score required to place in the 95 th per- centile (2018)	% score required to place in the 95 th percen- tile (2017)	% score required to place in the 95 th per- centile (2016)
Economics (9)	18	18	17.5
History/Geography (5)	18	17.5	17.5
Math (5)	19	19	18

Economics specialisation (higher levels)

Political Science specialisation (introduction)

Subject	% score required to place in the 95 th per- centile (2018)	% score required to place in the 95 th per- centile (2017)	% score required to place in the 95 th percen- tile (2016)
Economics (9)	18.5	18.5	18
History/Geography (5)	18	17.5	17.5
Math (5)	19	19	18

Mathematics specialisation (higher levels)

Subject	% score required to place in the 95 th per- centile (2018)	% score required to place in the 95 th per- centile (2017)	% score required to place in the 95 th percen- tile (2016)
Economics (7)	19	18.5	18
History/Geography (5)	18	17.5	17.5
Math (7)	18	17.5	17

Bac L - normal

The 'L' path has a very wide range of specialisations. Thus, these tables might not be comprehensive.

Subject	% score required to place in the 95 th per- centile (2018)	% score required to place in the 95 th per- centile (2017)	% score required to place in the 95 th percen- tile (2016)
Philosophy (7)	16	16	16
French (5)	19	18.5	18.5
Language 1 (8)	19	18	17.5

Languages specialisation (LV1)

Languages spe	cialisation (LV2)

Subject	% score required to place in the 95 th per- centile (2018)	% score required to place in the 95 th per- centile (2017)	% score required to place in the 95 th percen- tile (2016)
Philosophy (7)	16	16	16
French (5)	19	18.5	18.5
Language 2 (8)	19	18	17.5

Subject	% score required to place in the 95 th per- centile (2018)	% score required to place in the 95 th per- centile (2017)	% score required to place in the 95 th percen- tile (2016)
Philosophy (7)	16	16	16
French (5)	19	18.5	18.5
Other specialisation (6)	18	18	17.5

Art specialisation (e.g. Theatre, Dance, History of Arts)

High-School – OIB

As mentioned earlier, OIB students have an additional workload on top of the normal baccalaureate (especially students in the scientific path who have advanced level exams in science, humanities and classics) and more higher level courses. They are also required to already be top of the class in order to stay in the programme, thus the top 5% tend to achieve grades of around 17/20.

For the 'L' path, the OIB prevents them from taking the Language 1 specialisation (LV1 means they have been studying this language since they started middle school).

Bac S - OIB

Biology specialisation (higher levels)

Subject	% score required to place in the 95 th per- centile (2018)	% score required to place in the 95 th per- centile (2017)	% score required to place in the 95 th percen- tile (2016)
Mathematics (7)	17	17	16.5
Chemistry/ Physics (6)	17	16.5	16
Biology (8)	18	17	17
English Literature (7)	-	-	-
History/Geography (9)	16	16	16

Mathematics specialisation (higher levels)

Subject	% score required to place in the 95 th per- centile (2018)	% score required to place in the 95 th per- centile (2017)	% score required to place in the 95 th percen- tile (2016)
Mathematics (9)	18	18	17.5
Chemistry/ Physics (6)	17	16	16
Biology (6)	17	17	17
English Literature (7)	17	17	16
History/Geography (9)	16	16	16

Chemistry/Physics specialisation (higher levels)

Subject	% score required to place in the 95 th per- centile (2018)	% score required to place in the 95 th per- centile (2017)	% score required to place in the 95 th percen- tile (2016)
Mathematics (7)	18	17	17
Chemistry/ Physics (8)	17	16	16
Biology (6)	18	17.5	17.5
English Literature (7)	17	17	16
History/Geography (9)	16	16	16

Bac ES - OIB

Economics specialisation (higher levels)

Subject	% score required to place in the 95 th percentile (2018)	% score required to place in the 95 th percen- tile (2017)	% score required to place in the 95 th percen- tile (2016)
Economics (9)	17	17	16.5
History/Geography (9)	17	17	16.5
Math (5)	19	18	17
English Literature (9)	18	18	17.5

Political Science specialisation (introduction)

Subject	% score required to place in the 95 th percentile (2018)	% score required to place in the 95 th percen- tile (2017)	% score required to place in the 95 th percen- tile (2016)
Economics (9)	18.5	18.5	18
History/Geography (9)	17	16.5	16.5
Math (5)	19	19	18
English Literature (9)	18	18	17.5

Mathematics specialisation (higher levels)

Subject	% score required to place in the 95 th percentile (2018)	% score required to place in the 95 th percen- tile (2017)	% score required to place in the 95 th percen- tile (2016)
Economics (7)	19	18.5	18
History/Geography (9)	17	16.5	16.5
Math (7)	18	17.5	17
English Literature (9)	18	18	17.5

Bac L - OIB

Subject	% score required to place in the 95 th percentile (2018)	% score required to place in the 95 th percen- tile (2017)	% score required to place in the 95 th percen- tile (2016)
Philosophy (7)	15	15	15
French (5)	19	18.5	18.5
Language 2 (8)	17	16.5	16.5
English Literature (10)	18	17.5	17.5
History/Geography (8)	16.5	16.5	16

Languages specialisation (LV2)

Art specialisation (e.g. Theatre, Dance, History of Arts)

Subject	% score required to place in the 95 th percentile (2018)	% score required to place in the 95 th percen- tile (2017)	% score required to place in the 95 th percen- tile (2016)
Philosophy (7)	15	15	15
French (5)	19	18.5	18.5
Other specialisation (6)	18	18	17.5
English Literature (10)	18	17.5	17.5
History/Geography (8)	16.5	16.5	16

École préparatoire/prépa

As mentioned previously, the prestige of grades received in *prépa* depend on the school the student attends. On average, the top 10% of students are selected prior to their entry in the most prestigious *prépas*. Thus, anyone who comes from one of the top 10 *prépas* in France (depending on the subject, some *prépas* specialise in Economics, others in Engineering) with an average of 14/20 or more is guaranteed to be one of the brightest students in France.

Contextual Indicators

Geo-demographic Data

 Indice de désavantage social FDEP (French DEPrivation Index); essentially a mix between the UK IMD and ACORN indicators, measuring each locality in France by its proportion of unemployed individuals, manual labourers, high school graduates and median household revenue³³

Educational Background

• Whether the school is a state school. The gap between private and public schools is by no means as great as in the UK; yet smaller class sizes, a more so-

³³ Opendatasoft. (n.d.). *Social deprivation index (FDep) by IRIS*. Available at: https://public. opendatasoft.com/explore/dataset/indice-de-defavorisation-sociale-fdep-par-iris/information/

cially advantaged student body, etc. mean that private institutions do perform, on average, slightly better than their public (state) equivalents. For instance, 70% of privately schooled students obtain their baccalaureate, compared to only 59% of those in public schools.³⁴

• The school's performance relative to other schools.³⁵

Socio-economic Status

• Parental income and number of siblings and/or siblings in higher education.³⁶

Individual Circumstances

• Whether the student spent time in local authority care.

³⁴ Pellet, S. (2012). Public school, private school: a comparison. *Regards croisés sur l'*, 2, 184-188. Available at: https://doi.org/10.3917/rce.012.0184

³⁵ Ministry of National Education and Youth. (n.d.). *High School Performance Indicators*. Available at: https://www.education.gouv.fr/les-indicateurs-de-resultats-des-lycees-1118

³⁶ Ministry of National Education and Youth. (n.d.). *Student: scholarship on social criteria*. Available at: https://www.service-public.fr/particuliers/vosdroits/F12214

Finland

Education System

Primary Education

Finland has an all-encompassing broad primary education system. In general, the age range in primary education is ages 7 to 12. There is no exam at the end. Grades are given by the schoolteacher with oversight from the Finnish education board. Finland's primary education system is particularly unique due to the amount of required free time (i.e. every 60min of teaching has to include 15min of play).

Secondary Education

Secondary education is similar to primary education. Instead of a class teacher, students get a subject teacher. Grades are also based on teachers' discretion and oversight from the educational board. There are some national examinations in certain subjects to ensure consistent standards across schools. Students are not notified of their national exam grades are in their final grades. Instead, they form a part of the grade students receive from a subject teacher.

Pre-university Education

High-School (Lukio)

Students in high school will study for their pre-university education for 3 years, before taking the *ylioppilastutkinto* (matriculation exam) at the end of their final year. Students must take a minimum of four subjects with one being Finnish (or the student's mother tongue) and the rest a choice of three from Mathematics, Swedish, another language, and one paper in Social Sciences or Sciences. Examinations may be split across three consecutive examination sessions (two sessions each year) and students may, if they wish, take more than the minimum requirement of four exams.

Note: You can also complete the matriculation exams while partaking in vocational school. However, this is not a 'main track'.

Value of Scores

A-Level Equivalent

Below is a description of how grades in Finland are calculated, as well as the percentage scores required to receive the top grade for a subject. The top grade will be achieved by approximately between 3% and 8% of candidates based on the calculation method below. In the table, all subjects with over 10,00 candidates in the two 2018 examination sessions have been included, and the % score based on the spring examination session (which is the more popular session of the two) has been calculated.

Grade calculation method:³⁷

Test scores in the Finnish matriculation exams are calculated as follows. The examination board takes two successive examination sessions as a population and then calculates a Z-value for each candidate for each exam with respect to this population with the following formula:

 $Z-value = \frac{(Score - Student Average)}{Dispersion}$

The score is the student's score from the specific exam, the student average is the average score in the exam across the population, and the dispersion is the dispersion of scores within the specific exam. A SYK score (average of standardised total scores) is then calculated for each student by taking the mean average of all of the student's Z-values with the following formula:

$$SYK = \frac{(zA + zB + zC + \dots)}{n}$$

(Note: z is the student's Z-value for each exam A, B, C...; n is the number of subjects included in the examination)

Following this, all candidates for the population are ranked in order of their SYK score, with the top 5% receiving an overall mark of *laudatur* (L), the next 15% an overall mark of *eximia cum laude approbator* (E) and so on for lesser grades. Grades for specific papers are then given out in proportion to the overall marks calculated using the SYK score. For example, 7% of candidates for a specific exam might find themselves in the top overall grade bracket. The grade boundary for the top grade in that specific subject is then calculated to give 7% of the top scoring candidates for lesser grades are then calculated in the same manner.

An example of grade calculation:³⁸

A student, Heikki, received 88 points for his Psychology exam. The average score for the population is 57.5 and the dispersion is 21.4. Thus, Heikki's Z-Value for the Psychology exam is . The same calculation is conducted for all of Heikki's exams and then the mean average is taken to get Heikki's SYK score. For him this is 1.37. All candidates in the population are put in order of their SYK score, and then grades are assigned to the SYK scores so that the top 5% receive the top mark (L)

³⁷ Ylioppilastutkintolautakunta. (2020). *Pisterajat ja arvosanojen muodostuminen.* Available at: https://www.ylioppilastutkinto.fi/ylioppilastutkinto/pisterajat

³⁸ Ibid.

and so on. Heikki's SYK score is good enough to get him into the top 4%. Of those who took the Psychology exam 7.1% receive a SYK score in the top 5%. Thus, the top 7.1% of those who took the Psychology exam receive the top grade of L for Psychology which sets the grade boundary for an L at 91 points. Similarly, the boundary for E is 75 points. Heikki received 88 points in his Psychology exam and is thus awarded the second best grade, E, for his Psychology exam.

Subject	% score required for top grade (Spring 2018)	% score required for top grade (Spring 2017)	% score required for top grade (Spring 2016)
Mathematics (Long)	80	90	81.6
Mathematics (Short)	86.6	81.6	80
English (Long)	87.6	90.3	89
Finnish (Mother tongue)	72.5	72.5	72.5
Swedish (Medium)	81.3	82.3	79
Health Science	73.3	75	70
Social Science	80	78.3	85

% Score to reach top grade (L) in the spring examination of each year

Contextual Indicators

Geo-demographic Data

- Patio reports on education accessibility, which measures the percentage of 7-12 year olds and the percentage of 13-15 year olds who live within 5 kilometres from a school in a given municipality.³⁹
- Statistics Finland reports on average level of education in Finnish regions, which measures the average years of education completed after the required basic education in different Finnish regions, with the highest values in the capital region. This is likely to influence the education participation of the citizens in the area.⁴⁰
- Statistics Finland reports on poverty and income distribution. Parents' relative income poverty may affect children's educational opportunities.⁴¹

³⁹ Aluehallintovirasto. (2020). Patio/Raportit. Available at: https://www.patio.fi/raportit

⁴⁰ Tilastokeskus. (2019). Väestön koulutusrakenne. Available at: https://www.stat.fi/til/vkour/ index.html

⁴¹ Tilastokeskus. (2020). Tulonjakotilasto. Available at: https://www.stat.fi/til/tjt/index_en.html

Educational Background

- Whether the school is considered to be located in a more challenging environment. These schools may receive grants from the Ministry of Education.⁴²
- Whether the school's performance is below the national average (ranked according to national exams and *ylioppilastutkinto* scores).

Individual Circumstances

• Whether the student spent time in local authority care. Students who have spent time in care may be considered most disadvantaged.

⁴² Opetus- ja kulttuuriministeriö. (2020). *Opetus- ja kulttuuriministeriön tiedotteet ja verkkouutiset.* Available at: https://minedu.fi/tiedotteet-ja-uutiset
Germany

Education System

Primary Education

In Germany, each individual state shapes the primary education system separately, with primary education ranging from 4 to 6 years; children usually enter primary school at age 6 or 7. Although no examination is required at the end of primary school, teachers would recommend a branch of the secondary education system in Germany which best suits the abilities of the child. This recommendation is not binding in every state and is usually based on the grades of the ultimate year of primary school.

Secondary Education

The secondary education system is usually divided into 3 tracks: *Hauptschule, Realschule* and *Gymnasium*. Only students going to a *Gymnasium* can gain university access by passing the *Abitur* exams (German equivalent of A-levels). Recently, a fourth option has arisen, the *Gesamtschule*, constituting a holistic approach to include students from all skill-levels and also offering the *Abitur*. Besides public schools, 14.7% of German *Gymnasien* are private, thus making the private sector in Germany less relevant than in other OECD countries.⁴³

Other forms of secondary schools awarding the *Abitur* exist, including specialised *Gymnasien* that focus on teaching individual subjects; yet these schools are usually considered of equal value compared to classic *Gymnasien*.

Generally, the *Abitur* works more like the IB than the A-level exams. Year 11 and 12 each count for one-third of the final average mark. The other third is made up of the marks attained on the final examination. During year 11 and 12, students have to take between three and five 'main' subjects, depending on their home state (education is not a federal matter, but is left with the states). Usually these main subjects must include German, Math and one language, but again, this can vary between states. Additionally, they have to take several other subjects (usually two sciences; history; geography; two out of music, PE and art; religion, social studies and potentially others). They sit for examinations throughout the year: two per semester for the main subjects and one for the other subjects. These marks then make up two-thirds of the final average.

⁴³ VDP (Association of German Private Schools). (2016). *Statistische Daten* über *die Schulen in freierTrägerschaft in Deutschland*. Available at: https://www.privatschulen.de/images/stories/ PDF/2017/VDP_Privatschulstatistik_Schuljahr_15_16_Grafiken.pdf

The individual grades one receives are measured on a point scale from 0 to 15, with 15 being the highest score and 5 the passing mark (comparable to a D). The range can be broadly translated to UK grades:

German Grades	UK Grades
15	A+
14	A
13	A-
12	B+
11	В
10	В-
9	C+
8	С
7	C-
6	D+
5	D

The final average ranges from 1.0 which is the top mark to 4.0 which is the lowest passing grade. The system itself and how the marks are counted is quite complicated and varies from state to state. In general, comparability between states is not possible. There is no guarantee that a student with a 1,0 mark from Berlin (known for its comparably bad education system) has the same academic standards as a student scoring the same mark from Bavaria (one of the best states when it comes to education).⁴⁴

Value of Scores

There are two relevant scores for university admission. The first is the overall average score, while the second consists of the individual subject *Abitur* exam marks. In Germany, universities usually focus less on individual marks and more on the overall average score. For example, it is possible to study Medicine with the main *Abitur* subjects German, Maths, History, Latin and English, as long as the average mark attained is above the *Numerus Clausus* (admissions requirement) 1.1.⁴⁵

There is no subject specific data, as it varies by state and system. But generally, most PA target universities have specific German offer requirements on their

⁴⁴ KMK (Secretariat of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany). (2017). *The Education System in the Federal Republic of Germany 2016/2017*. Available at: https://www.kmk.org/fileadmin/Dateien/ pdf/Eurydice/Bildungswesen-engl-pdfs/dossier_en_ebook.pdf

⁴⁵ DAAD (German Academic Exchange Service). (2019). *Database on admission requirements*. Available at: https://www2.daad.de/deutschland/nach-deutschland/voraussetzungen/ en/57293-database-on-admission-requirements/; European Commission. (2019). *Education and Training, Monitor 2019*. Available at: https://ec.europa.eu/education/sites/education/files/document-library-docs/volume-1-2019-education-and-training-monitor.pdf

course or programme websites. They usually require individual marks of 13 or higher in specific exam subjects and averages of 1.3 or higher.

Contextual Indicators

Geo-demographic Data

- Population divided by educational status and nationality, measured by the Federal Office of Statistics⁴⁶
- Various geo-demographic indicators, measured by the KMK and the Federal Government⁴⁷

Geo-demographic Indicators	Page No.
Spending on education by federal government and states	р. 28
Number of socially and financially disadvantaged adolescents by state	р. 37

Eurostudent Report 2005, by the Federal Ministry of Education and Research⁴⁸

Educational Background

- INSM-Bildungsmonitor, comparing academic quality among states⁴⁹
- Average final grades relative to the state, conducted by the KMK⁵⁰

⁴⁶ Federal Office of Statistics. (2020). *Population divided by Nationality and Educational Status*. Available at: https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Bildung-Forschung-Kul-tur/Bildungsstand/Tabellen/liste-bildungsabschluss-privathaush-allgemeine-schulausbildung. html

⁴⁷ KMK. (2018). *Education in Germany 2018 - an indicator-based analysis of effects and results of education*. Available at: https://www.bildungsbericht.de/de/bildungsberichte-seit-2006/bildungsbericht-2018/pdf-bildungsbericht-2018/bildungsbericht-2018.pdf

⁴⁸ Federal Ministry of Education and Research. (2005). *Social and Economic Conditions of Student Life in Europe 2005*. Available at: https://web.archive.org/web/20051211030412/http:/www. bmbf.de/pub/eurostudent_report_2005.pdf#page=157

⁴⁹ INSM. (2019). *INSM-Bildungsmonitor 2019 - Economic Education and Opportunities to Participate*. Available at: https://www.insm-bildungsmonitor.de/pdf/Forschungsbericht_BM_Langfas-sung.pdf

⁵⁰ KMK (Secretariat of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany). (2019). *Preliminary Results of Abitur Grades in 2018/2019*. Available at: https://www.kmk.org/fileadmin/Dateien/pdf/Statistik/Dokumentationen/Schnellmeldung_Abiturnoten_2019.pdf

India

Education System

Primary Education

This is typically classified in India as the 'Middle Stage/Upper Primary' which commences from year 6 and goes up till year 8.⁵¹

Secondary Education

This is typically classified in India as the 'Secondary' and 'Upper Secondary' which include year 9-10, and 11-12 respectively. Under the Central Board of Secondary Education, students will sit for Board level exams at the end of year 10 and year 12, which are equivalent to the IGCSE and A Levels respectively.⁵²

Pre-university Education

The pre-university education system in India is divided into 2 main tracks:

CBSE Board Exam

Students under this track will complete their pre-university education in 2 years, before taking their CBSE Board exam at the end of their final year (or in earlier years of pre-university education if applicable). Students must take a minimum of give subjects with an option of a sixth one, focusing on one of three streams – Science, Commerce or Arts (Humanities). This is standardised by the Indian board, for schools that adopted IB or A level system.

Plus-two/Intermediate Course

The pre-university course or pre-degree course (PUC or PDC) is an intermediate course (which is known as 10+2) of 2 years' duration, conducted by state education institutions or boards in India. This pre-university course is also known as the Plus-two or Intermediate course. A student desiring admission to an Indian university must pass this course, which can be considered a degree bridge course to prepare students for university education.

Admission to the intermediate course is based on grades obtained for the Secondary School Leaving Certificate, which is awarded after successful completion of 5 years of primary school, followed by 5 years of secondary school. The Indian education system follows a 10+2+3 (4 or 5) pattern, so that a bachelor's degree requires a minimum of 10 years of school, plus 2 years of PUC, plus either 3, 4 or

⁵¹ British Council. (2019). *The School Education System in India*. Available at: https://www.brit-ishcouncil.in/sites/default/files/school_education_system_in_india_report_2019_final_web.pdf

⁵² Ibid.

5 years at university. Colleges offering a pre-university course are known as PU Colleges or Junior colleges in India.

Local universities have their own entrance exams and admit students based on PUC or PDC grades. $^{\rm 53}$

Value of Scores

GCSEs Equivalent

Indian test scores can be converted into UK GCSE equivalents; however, they are not directly comparable.

A-Levels Equivalent

Indian test scores can be converted into UK A Levels equivalents, however they are not directly comparable.

Contextual Indicators

Educational Background

- Whether the school is public school or private
- Whether the school does the government board or international board

Socio-economic Status

- Family background
- Parents' occupation

⁵³ Department of Pre-university Education. (n.d.). Available at: http://pue.kar.nic.in/

Italy

Education System

Primary Education

Primary education in Italy lasts 5 years. Generally, children start at the age of 6 and conclude the cycle when they are 11, but there is possibility to apply for an early start 1 year in advance. There is no final exam.⁵⁴

Secondary Education

Secondary education lasts 3 years and includes an exam at the end of the cycle, which is required to pursue further studies. The examination grade is out of a total 10 marks.⁵⁵

Pre-university Education

The pre-university education system in Italy is divided into three main tracks. All tracks last 5 years, and students sit for a final exam at the end of their pre-university education (*Esame di Maturità*), which awards them identical graduating certificates. Therefore, students from any track can pursue further studies. The differences between the tracks are mainly linked to the typology of studies and can affect future career prospects.

Liceo

Licei mainly offers a theoretical preparation and tends to be the optimal path for students that intend to pursue university studies. While all include standard subjects such as Mathematics, Italian, Science, History, English, there are different typologies depending on the academic focus: *L. Artistico* (Art, Drawing, Graphic, Design), *L. Classico* (Latin, Ancient Greek, Philosophy), *L. Linguistico* (two modern language added to English), *L. Musicale* (Music, Dance, Choreography), *L. Scientifico* (Maths, Physics, Chemistry, IT), *L. delle Scienze Umane* (Pedagogy, Sociology, Psychology).

Technical institute

Technical institutes tend to focus on developing more practical skills. There are a number of typologies, but they can be clustered into two macro sectors: Economics and Technology.

⁵⁴ Ministry of Education. (n.d.). *Primary School*. Available at: https://www.miur.gov.it/web/guest/scuola-primaria

⁵⁵ Ministry of Education. (n.d.). *First Grade Secondary School*. Available at: https://www.miur. gov.it/web/guest/scuola-secondaria-di-primo-grado

Professional institute

Professional institutes are similar to the technical ones but provide an even more specialised education and more working experience while studying. Sectors include Mechanics, Agriculture, Gastronomy.⁵⁶

Value of Scores

Esame di Maturità

The final exam gives student an overall mark out of 100, and students must obtain a mark over 60 in order to pass. The final mark comprises of four components: a written examination on Italian essay writing (same across all Italian pre-university schools), a written examination on one central subject (varies depending on the track), an oral examination on all subjects studied, and the average of marks from the last 3 years.⁵⁷ In 2018/2019, 16.8% of all Italian students achieved a mark equal or higher than 91, with 5.6% obtaining a score of 100.⁵⁸

Contextual Indicators

Educational Background

- Rendicontazione sociale: final phase of the evaluation cycle of educational institutions; 'publication, dissemination of the results achieved, through comparable reports and data'. It is possible to consult and compare these data for different schools all over the country through the website: https://cercalatuascuola.istruzione.it/cercalatuascuola/
- INVALSI: Share of students in grade 8 performing below the baseline level of proficiency in literal competence/ numerical competence/ English competence, divided per region⁵⁹
- *Multiscopo sulle famiglie: aspetti della vita quotidiana* (ISTAT): Percentage of youth with high level of IT competencies, divided by region⁶⁰

⁵⁶ Ministry of Education. (n.d.). *Secondary School*. Available at: https://www.miur.gov.it/web/guest/scuola-secondaria-di-secondo-grado

⁵⁷ Ministry of Education. (n.d.). *State Exams.* Available at: https://www.istruzione.it/esame_di_stato/index.shtml

⁵⁸ Ministry of Education. (n.d.). *Focus 'Esiti degli Esami di stato nella scuola secondaria di II grado'*. Available at: https://www.miur.gov.it/documents/20182/0/Esiti+degli+Esami+di+sta-to+nella+Scuola+secondaria+di+II+grado+%E2%80%93+Anno+Scolastico+2018_2019.pd-f/8e1e2a8c-9216-c196-2bb6-1873373faf77?version=1.0&t=1587210867273

⁵⁹ Istat. (2020). *Italian Data for UN-SDGs.* Available at: https://www.istat.it/storage/SDGs/SDG_04_Italy.pdf

⁶⁰ Ibid.

Socio-economic Status

• ISEE (*Indicatore della Situazione Economica Equivalente*): indicator which helps to evaluate and compare the economic situation of families⁶¹

Individual Circumstances

 INPS (the institute which assigns scholarships and created the ISEE indicator) bases its choice not only on the economic situation, but gives priority to orphans, disabled individuals and children of ex-public service workers.⁶²

⁶¹ INPS. (2017). *How to fill in the DSU and apply for the ISEE*. Available at: https://www.inps.it/nuovoportaleinps/default.aspx?itemdir=50088

⁶² Talento, M. (n.d.). *What is a scholarship and how it is obtained*. Available at: https://www. guidaconsumatore.com/lavoro/che-cose-una-borsa-di-studio-e-come-si-ottiene.html

Malaysia

Education System⁶³

Primary Education

Malaysian students go through 6 years of primary education. They start at the age of 7 (Standard 1) and finish at the age of 12 (Standard 6). There is an exam called UPSR at the end of Standard 6. They are tested in six subjects with additional one/ two subjects for those who take up Mandarin and/or Tamil. They are graded A (80-100) to E (0-39). The results of this exam will be used by student to apply to good/ elite high schools in Malaysia.

Secondary Education

Students go through 5 years of high school. They start at the age of 13 (Form 1) and finish at the age of 17 (Form 5). Students sit for two exams - one of which is at the end of Form 3 (15 years old) called PPT3. The number of subjects vary slightly but generally, there are eight subjects. This exam can still be used for some students who would like to have another chance at a better high school (they could use this exam result to apply to the top high schools). The second exam is at the end of Form 5 (17 years old). The number of subjects vary quite significantly between students depending on which subject stream they choose (humanities or sciences). This exam is the most important one as the results are used to apply for scholarships and pre-university education.

Pre-university Education

The pre-university education system in Malaysia is divided into six main tracks:

A-level

Students taking A-levels will study for their pre-university education for 2 years, before taking the A2 at the end of their final year. Students must take a minimum of three subjects, with three subjects taken at AS-level and three subjects taken at A2 level. These must include subjects required by their prospective universities for their course of choice.

STPM-national examinations

Students are based in high schools that offer Form 6, after their Form 5 (high school). Students will study for their pre-university education for 2 years, before

⁶³ Ministry of Education. (2013). *Malaysia Education Blueprint 2013-2025*. Available at: https:// www.moe.gov.my/menumedia/media-cetak/penerbitan/dasar/1207-malaysia-education-blueprint-2013-2025/file; Ministry of Education. (n.d.). *Standard Kualiti Pendidikan Malaysia*. Available at: https://www.moe.gov.my/en/moe-staff/education-services-officer/standard-kualiti-pendidikan-malaysia-skpm

taking the STPM exams at the end of their final year. Students must take a minimum of 4 subjects. These must include subjects in in their choice of stream (Humanities/Sciences). In addition, student have to take the Malaysian University English Test (MUET) in order to apply to universities.

Foundation-national examinations

Students are based in local universities that offer foundation courses. The universities may be private or public. Students will study for 1 year, with the number of subjects differing between universities. Examinations are not standardised. Although, local universities use the CGPA system where they're graded from 1.00 (lowest) to 4.00 (highest). The results of the foundation programme are used to apply to courses in the same university or other universities that offer a credit-transfer scheme.

Diploma-national examinations

Students are based in local universities. The number of years they study completely depend on their universities and the course they read. It varies from 2-3.5 years. The number of subjects also vary between universities and courses. Exams are not standardised – it mimics an undergraduate course. Students are graded using the CGPA system – 1.00 (lowest) to 4.00 (highest).

AUSMAT/SAM

Australian matriculation system, ranging from 10 to 12 months long. Students take their exams at the end of their programme and examinations count for 50%-70% of the final grade for a subject. The final grade for university admissions is a single score, called the Australian Tertiary Admission Rank (ATAR), and is the total percentage of their four best subjects and 50% of their weakest subject.

Value of Scores

SPM (O-Level equivalent)

SPM results are reported over a range of 10 grades, and each grade corresponds to a subject grade point (SGP). Table is shown below for illustration:

Subject Grade	Subject Grade Point (SGP) (%)	Status	O-level Equivalent
A+	90-100	Super distinction	9
А	80-89	High distinction	8
A-	70-79	Distinction	7
B+	65-69	High merit	6
В	60-64	Merit	5
C+	55-59	Credit (Upper)	4
С	50-54	Credit	3
D	45-49	Pass (Upper)	2
E	40-44	Pass (Lower)	1
G	01-39	Fail	U

STPM (A-Level equivalent)

STPM results are reported over a range of 11 grades, and each grade corresponds to a subject grade point (SGP). Table is shown below for illustration:

Subject Grade	Subject Grade Point (SGP) (%)	Status	A-level Equivalent
A-	3.67	Full Pass	А
B+	3.33	Full Pass	В
В	3.00	Full Pass	В
B-	2.67	Full Pass	В
C+	2.33	Full Pass	С
С	2.00	Full Pass	С
C-	1.67	Partial Pass	С
D+	1.33	Partial Pass	D
D	1.00	Partial Pass	D
F	0.00	Fail	F/O/U

Data for the % score required to be on the 95^{th} percentile in the country is not available but the percentage of students achieving the highest grade (A) in the main subjects is shown in the table below:⁶⁴

Subject	2018	2017	2016	2015	2014
General Studies	14.16	7.66	11.59	14.41	4.91
Malay	23.05	15.33	22.99	14.71	16.15
History	7.82	13.98	20.43	14.83	15.69
Economics	17.37	17.60	17.10	13.21	15.70
Mathematics	8.77	12.73	10.70	4.73	5.50
Chemistry	13.13	9.09	5.93	4.79	4.33
Biology	7.40	9.32	10.04	8.29	5.14

Contextual Indicators

Educational Background

- All national schools are state schools. Everyone has access to education (i.e. fees are waived for those in need). Other than these, there are private and international schools.
- BANDS Schools are ranked according to bands as follows:65

⁶⁴ Malaysian Examinations Council. (n.d.). *STPM and MUET Examination Reports*. Available at: http://portal.mpm.edu.my/laporan-peperiksaan-stpm-dan-muet-2018

⁶⁵ Ministry of Education. (n.d.). *National Key Result Areas.* Available at: https://nkra.moe.gov. my/index.php

Band	SM	SR
1	>=90	>=85
2	80-89.99	75-84.99
3	70-79.99	65-74.99
4	60-69.99	55-64.99
5	50-59.99	45-54.99
6	40-49.99	45-44.99
7	<=39.99	<=34.99

Band 1 being the best performing schools and band 7 being the worst. Typically, schools with lower bands are rural area schools. Not always, but often, schools in the city score higher bands. (Note: Schools outside of the capital city are considered a rural area school while schools in the capital city are considered urban area schools)

Individual Circumstances

- Students who are considered disadvantaged:
 - Low income household
 - Rural areas that receive special aid from the government
 - Children of single mothers
 - Orphans

Norway

Education System

Primary Education

Norwegian Primary school (*Grunnskolen*) is regarded as grades 1-7. This is typically from the year students turn 6 to the year students turn 13, as the Norwegian intake is based on calendar year rather than the academic year. Students are taught a range of subjects including but not limited to: languages (Norwegian and English), sciences (Natural Sciences and Mathematics), social sciences (Social Studies, History, Religion and Ethics), arts (Music, Home Studies and Art Education), and physical education. During these years students are not officially graded, ranked, or given exams in any manner, except standardised, nation-wide tests (*Nasjonale prøver*) delivered in 5th grade in reading, Mathematics, and English in order to measure broader trends in attainment.

Secondary Education

Norwegian Secondary school (*Ungdomsskolen*) is regarded as grades 8-10 (typically from the year students turn 13 to the year students turn 16). During these years, in addition to students continuing to study the subjects they have taken on in primary school, they add a third language (German, French, or Spanish) and also their non-native form of written Norwegian (*Sidemål* – either *Nynorsk* or *Bokmål*, which are the two written standards of the Norwegian language).

In these 3 years students receive marks (from a passing mark of 2 to 6), and the average of your 10th year marks determine what high school you are accepted to.

10th year students are also required to sit for two national exams (oral and written), and which exams you sit for are determined by a lottery-system. Your marks from these two exams stand as two separate grades equal in weight to any subject.

Pre-university Education

Norwegian Pre-University education (*videregående skole* or *Gymnas*) is regarded as grades 11-13 (typically the year students turn 16 to the year they turn 19) and is non-compulsory after the age of 16. During these 3 years you take eight subjects each year. Year 11 is fairly standardised, however in years 12 and 13 students have the opportunity to choose a direction of study (either Social or Natural Sciences) and which subjects to study. In year 12, students will choose four subjects within their chosen direction, whilst still taking their 'base' subjects, and will continue with three of those subjects in year 13.

12th year students are required to sit one national exam (either oral or written). Which exam you sit is again subject to a lottery-system. Your marks from this exam stands as a separate grade equal in weight to any subject. In your final year (year 13) you are required to sit three national exams. All students will sit a Norwegian written exam, alongside one written and one oral exam subject to a lottery system. Your marks from these exams stand alone as a separate grade, equal in weight to any other subject.

The Norwegian curriculum does not offer different levels or difficulties of subject, apart from Mathematics where you can choose Mathematics geared towards Social or Natural Sciences.

Students graduate *Videregående* with an GPA out of 6 (an average of all your marks from subjects and exams). When applying to Norwegian universities, students apply through a points-based system. By multiplying their GPA by 10 and adding additional points from taking foreign languages and sciences (i.e. 2 extra points for taking level 2 Physics), students usually achieve a score from 0 up to the mid-high sixties. Extra 'gender points' are also given if applying to course where their gender is in a significant minority (i.e. men applying to nursing or women applying to engineering).

University applications in Norway are anonymous and are fully based on a student's academic achievements (GPA), without any form of personal statement/ essay or references.

Value of Scores

Norwegian students are not ranked in relation to each other. Therefore, there is no equivalent of the common percentile system.

Contextual Indicators

Class or privilege-based contextual indicators are not regularly collected by *Udir* (The Norwegian Directorate of Education and Training), with results only demographically separated by gender.⁶⁶ Anecdotally, Norwegians often seem to reject the notion of persistent societal class differences and its impact on education.

Socio-economic Status

Studies have found that one's parents' level of higher education significantly in-

⁶⁶ Udir. (2019). *Karakterer i videregående skoler skoleåret 2018-19*. Available at: https://www.udir.no/tall-og-forskning/finn-forskning/tema/karakterer-i-videregaende-skoler-skolearet-2018-19/

fluences attainment in pre-university education and in university education.⁶⁷ In high school, students with parents that have completed a university degree perform on average a full grade higher than students with parents who have only completed their 10 years of mandatory education.⁶⁸ This has significantly impact in the university application process of a system solely based on grades. Additionally, 70% of students choosing a vocational post-secondary education, rather than a pre-university education, have parents with no higher education⁴⁸. In total, 60% of 19-24 year-olds with university-educated parents are enrolled in university, compared to only 16% of 19-24 year-olds with parents without university degrees⁴⁸ – despite university being free in Norway, a condition often said to increase social mobility. In summary, there are significant links between parental income and educational background and attainment in post-secondary- and higher education.

⁶⁷ Ekren, R. (2014). Sosial reproduksjon av utdanning? *Samfunnsspeilet*, 5, 20-24.

⁶⁸ Ibid.

Poland

Education System

Note: There has been a recent change in the Polish education system, with students starting high school in 2 different years; the last year going through the old education system will be the batch graduating high school in 2021 or technical school in 2022.⁶⁹

Primary Education

Primary school is 6 years long, with first 3 years being general education and the subsequent 3 years divided into subjects. At the end of primary school, there is a standardised three-part exam in Polish, Mathematics and English.

Secondary Education

Middle school is 3 years long, with all students taking the same subjects for its whole duration. It is concluded by a standardised five-part exam in Polish, Social Science and History, Mathematics, Natural Sciences and a modern language. The scores obtained in the exam along with the grades from the final year of education are used to determine entry into the schools in the next stage of education, i.e. high schools, technical schools and vocational schools.

Pre-university Education

The pre-university education system in Poland is divided into two main tracks:

High school

Students in high school (*liceum*) will study for their pre-university education for 3 years, before taking the *Matura* (also named *Nowa Matura/New Matura*) at the end of their final year. Students must study at least two subjects at an extended level during the last 2 years of high school, with at least one of those subjects taken from a subset of: History, Geography, Chemistry, Biology or Physics. In the exam, students must take a minimum of one and maximum of six subjects at an extended level in addition to three compulsory subjects taken at standard level - these are Polish, Mathematics and a modern language.⁷⁰ The Polish and modern language exam also include an oral part, which is not standardised and as such, not taken into account in university admissions in Poland.

⁶⁹ European Commission. (2019). Organisation of the Education System and of its Structure. Available at: https://eacea.ec.europa.eu/national-policies/eurydice/content/organisation-education-system-and-its-structure-56_en

⁷⁰ Central Examination Board. (2019). *About the examination*. Available at: https://cke.gov.pl/ en/egzamin-maturalny/egzamin-w-nowej-formule/o-egzaminie/

Technical school – 'Technikum'

The technical school takes 4 years, with the students being subject to the same requirements and taking the same exams as the high school student, but alongside a vocational component. Students of technical schools take vocational assessments in their penultimate year, and *Nowa Matura* in their final year.

Value of Scores

Egzamin gimnazjalny (Middle School Exam) – GCSE equivalent

Students receive scores for each of the five compulsory parts; those are given as both percentages and percentiles. The percentage scores are used in conjunction with grades to determine entry into further stages of education, but they are not used in university admissions.

Subject	% score required to place in the 95 th per- centile (2019) ⁷¹	% score required to place in the 95 th per- centile (2018) ⁷²	% score required to place in the 95 th percentile (2017) ⁷³
Mathematics	83	86	90
Polish Language	88	91	94
Social Science and History	88	88	91
Natural Sciences	79	86	82
English	98	95	95

⁷¹ Central Examination Board. (2019). *Centile scales for the the results of the gymnasium exa*mination conducted in April 2019. Available at: https://cke.gov.pl/images/_EGZAMIN_GIMNA-ZJALNY/Informacje_o_wynikach/2019/20190614%20EG%20Wstepne%20informacje%20CEN-TYLE.pdf

⁷² Central Examination Board. (2018). *Centile scales for the the results of the gymnasium exa*mination conducted in April 2018. Available at: https://cke.gov.pl/images/_EGZAMIN_GIMNA-ZJALNY/Informacje_o_wynikach/2018/20180614%20EG%20skale%20centylowe.pdf

⁷³ Central Examination Board. (2017). *Centile scales for the the results of the gymnasium examination conducted* in April 2017. Available at: https://cke.gov.pl/images/_EGZAMIN_GIMNA-ZJALNY/Informacje_o_wynikach/2017/20170616%20GIMNAZJUM%20wst%C4%99pne%20 informacje%200%20wynikach%20WEB%20SKALE%20CENTYLOWE.pdf

Nowa Matura – A Level Equivalent

Students receive scores in both percent and percentiles; a minimum of 30% is needed to pass in the standard level subjects, but there is no such requirement in extended level subjects. Oral components of the standard level subjects are not standardised, and as such those scores are not given as percentiles and not taken into account for university admissions in Poland.

Subject	% score required to place in the 95 th percen- tile (2019) ⁷⁴	% score required to place in the 95 th percen- tile (2018) ⁷⁵	% score required to place in the 95 th percen- tile (2017) ⁷⁶
Mathematics	68	80	76
Polish Language	90	88	93
Physics	75	77	82
Chemistry	85	88	80
Biology	72	75	77

Contextual Indicators

Geo-demographic Data

- Socioeconomic data on the mean household budget based in the type of area someone lives in or the *voivodeship*⁷⁷ but no indicator
- Numbers of higher education and high school alumni available on the county (*powiat*) scale,⁷⁸ but only raw data is available, no indicator

⁷⁴ Central Examination Board. (2019). *Centile scales for the results of the secondary school-le*aving examination held in May 2019. Available at: https://cke.gov.pl/images/_EGZAMIN_MATU-RALNY_OD_2015/Informacje_o_wynikach/2019/20190704%20Wst%C4%99pna%20informacja%200%20wynikach%20matury%202019%20CENTYLE.pdf

⁷⁵ Central Examination Board. (2018). *Centile scales for the results of the secondary school-le*aving examination held in May 2018. Available at: https://cke.gov.pl/images/_EGZAMIN_MA-TURALNY_OD_2015/Informacje_o_wynikach/2018/20180703%20B%20Wstepna%20informacja%200%20wynikach%20matury%202018%20CENTYLE.pdf

⁷⁶ Central Examination Board. (2017). *Centile scales for the results of the secondary school-le-aving examination held* in May 2017. Available at: https://cke.gov.pl/images/_EGZAMIN_MA-TURALNY_OD_2015/Informacje_o_wynikach/2017/20170630%20Wstepna%20informacja%20 o%20wynikach%20matury%202017%20CENTYLE.pdf

⁷⁷ SWAID. (n.d.). *Household budget survey - material conditions of population by class of locality*. Available at: http://swaid.stat.gov.pl/EN/WarunkiZyciaLudnosci_dashboards/Raporty_predefiniowane/RAP_DBD_WZL_2.aspx

⁷⁸ GUS. (n.d.). *Local Data Bank*. Available at: https://bdl.stat.gov.pl/BDL/metadane/ce-chy/3226?back=True

Educational Background

- There are public and private schools in Poland, however, the private schools do not perform better than public schools and are usually lower in the rankings based on final exam results
- Whether the school's or college's performance is below the national average (for both GCSEs and A Levels)

Individual Circumstances

• Whether the student spent time in local authority care, children of single parents, first generation students etc.

Note: Some data is available, but admission into universities in Poland does not take these into account.

Singapore

Education System

The Singapore school year follows the calendar year – four 10-week terms with week-long breaks in March and September and longer breaks in June and November/December.

Primary Education

Primary education is 6 years long and compulsory by law. School admission is through various means, with priority given to various groups of students, including siblings of current students, children of school alumni, and children of school staff and grassroots leaders, and finally by distance from one's home.⁷⁹ Many students attend a school near their homes, but better-performing primary schools take in many through preferential admissions e.g. parent was an alumnus of that school, family attends church affiliated to the school (applicable to many mission schools). Naturally, primary schools in affluent neighbourhoods attract a high-er-income student body.

All students sit for the Primary School Leaving Examination (PSLE) that determines secondary school admissions in Primary 6. Most take four subjects: English, Mother Tongue, Mathematics and Science (foundation-level subjects are available); Higher Mother Tongue offered to better-performing students. **Until 2020:** students receive a 2 or 3-digit T-score – the higher the score, the better; **Post 2021:** phased out by 2021 in favour of a banding-based system.

Some students apply to secondary schools by Direct School Admission before the PSLE, where non-academic criteria e.g. sporting and artistic talent determine admission. Bright students who pass two rounds of optional tests at Primary 3 can transfer to the Gifted Education Programme offered at select schools – same PSLE papers, but school curriculum is accelerated/enhanced.

⁷⁹ Ministry of Education. (n.d.). *Registration phases and key dates*. Available at: https://beta. moe.gov.sg/primary/p1-registration/registration-phases-key-dates/?pt=2C

Secondary Education

Depending on their PSLE results, students can choose one of a few academic streams.

Integrated Programme (IP)

Usually the top 10 percent of students make it to this stream; an expected T-score is at least 250 points. Students in this stream attend IP schools, and bypass the GCE O Levels in a 6-year programme that leads to the IB Diploma Programme or GCE A Levels. Many schools that offer this stream are independent schools – a slight misnomer, as they are still government schools, but they charge slightly higher fees (a few hundred SGD per month as opposed to a two-digit fee for regular schools) and have more autonomy in hiring staff and conducting school programmes.

Specialised schools

Students must apply through Direct School Admission. The focus is on sports, arts, or sciences. Specialised schools include: National University of Singapore High School for Mathematics and Science (6-year programme), School of Science and Technology (4-year programme) and School of the Arts (admission at either Secondary 1 or Junior College 1 – it is still a government school, but unique in that it is overseen by the Ministry of Culture, Communication and Youth).

Express

It is a 4-year programme leading to the GCE O Levels, offered at virtually every school in Singapore, excluding some of the IP schools. The papers are set by both MOE and Cambridge. Students sit a minimum of six subjects, including English, Elementary Mathematics, Mother Tongue and Combined Humanities, which comprises of Social Studies and one other subject (History/Geography/Literature) – ten is maximum, subject to school approval. Not all schools offer all subjects in-house, e.g. Art and Music. Results are bell curved nationally: the best six subjects are counted in what is termed an L1R5 score, including a first language, a Maths/Science subject and a Humanities subject, followed by the next best three. **The lower the score, the better.** Students may get bonus points for excelling in Co-Curricular Activities or taking Higher Mother Tongue, bringing the best possible score to 2 points. Students who want to enrol in a polytechnic instead of junior college will receive an L1R4 score, counting the next two best subjects instead of three. Junior colleges and polytechnic courses have different 'cut-off' L1R4/L1R5 cut-off points.

Normal Academic (NA)

It is a5-year programme also leading to the GCE O Levels, but students also take the GCE N Level exams in their 4th year. After their 4th year, they can choose to carry on to Sec 5 or enter the vocational Institute of Technical Education. NA subjects tend to be slightly modified versions of Express subjects. Not all schools offer this stream – better-performing schools usually offer only Express/IP. The L1R4/5 system is also used for grading.

Normal Technical (NT)

This is a vocational stream with a 5-year programme, leading to the Institute of Technical Education – a nationalised vocational school with a wealth of programmes, including engineering, childcare, and architecture courses. NT students take a mix of academic and vocational subjects, including Principles of Accounts or Food and Nutrition. Two schools in Singapore offer only the NT stream: Crest and Spectra Secondary Schools, while many do not offer it at all. Others offer it only if there is sufficient demand that year.

Pre-university Education

The pre-university education system in Singapore is divided into four main tracks:

Junior College (JC)

Students in JCs will study for their pre-university education for 2 years, before taking the GCE A Levels at the end of their final year. Students on the Integrated Programme join their O Level peers these 2 years. Students must take a minimum of seven subjects, with three subjects taken at higher level (H2), and five subjects taken at standard level (H1), including compulsory H1 General Paper and Project Work. The subjects taken must include at least one subject in contrasting disciplines, e.g. if you want to take Biology, Chemistry and Mathematics, your last core subject must be an Arts subject (such as Economics or History). Students who opt to take Knowledge and Inquiry at H2 level may be exempted from General Paper. All students for an H1 Mother Tongue exam in their 1st year, unless they passed Higher Mother Tongue in secondary school and do not wish to sit the exam again. (Students who took Higher Mother Tongue in secondary school have their grade converted to an A Level grade). All students belong to either the Science or Arts stream. In some rare cases, they take an equal number of subjects from each half i.e. two Science and two Arts subjects. Arts stream L1R5 cut-off points tend to be less demanding; usually a point above the Science cut-off point (bear in the mind the lower the score, the better one performed in the examinations). Minimum grade required to qualify for a JC is 20 points overall. Again, students who have exemplary non-academic talent can apply for Direct School Admission to their choice school. Two government schools offer the IB programme instead of A Levels. Students will sit for Group 2 exams in their 1st year (if the Language B subject is their assigned mother tongue), and then the rest of the papers in their second, unless their Group 2 subject is an ab initio language. All exams are November session papers.

Millennia Institute (MI)

MI is identical to the JC course except over 3 years instead of two. It is also the only school left offering the Commerce stream, which includes subjects like Principles of Accounts.

Polytechnic

Singapore has multiple government polytechnics each offering an array of courses. These include psychology, engineering, and vocational subjects like food

science. Most courses are 3 years long. Admission to a specific course is based on the students' L1R4 scores, but bright students can apply for Direct Polytechnic Admission in their final year of secondary school – this programme has been expanded greatly in recent years. Some courses are extremely competitive and require equivalent scores to top junior colleges. After completing their courses, students will graduate with a Polytechnic Diploma and, can choose whether to apply for university or start work. Learning is more project-based than JCs; students are not expected to wear uniforms or adhere to strict sets of school rules. In recent years, an increasing proportion of polytechnic students have gained admission to local universities, although the majority of polytechnic students do not.⁸⁰

ITE

As mentioned earlier, ITE offers vocational courses at its multiple campuses across Singapore. The variety of courses available has grown significantly in the last decade. Students enter with their O Level or N Level grades. ITE students graduate with a NITEC Diploma, which they may choose to continue so they can receive a Higher NITEC Diploma. In some cases, ITE graduates choose to advance to a polytechnic and subsequently to university.

Value of Scores

Note: PASG does not have access to such information for Polytechnic Diplomas.

GCE O-Levels

Scale from A1 to F9, the former being the best – A1, A2, B3, B4, C5 and C6 are pass scores; A1 and A2 scores are Distinctions.

As results are on a bell curve, the exact grade boundaries may shift from year to year. Solely in school settings, A1 is 75 and above; A2 is 70; C6 is 50.

Singapore's GCE O Level is acceptable at grades A1–C6 in lieu of UK's GCSE grades A, B and C on a subject for subject basis.

GCE A-Levels

In school settings, A (70+), B (60-69), C (55-59), D (50-54), E (45-49), S (sub-pass;40-44), U (ungraded)

As results are on a bell curve, the exact grade boundaries may shift from year to year. Students do not get to see their raw scores or percentiles for national examinations, unless they take the IB Diploma Programme.

⁸⁰ Davie, S. (2020). *Nearly 1 in 3 poly grads makes it to a local university*. Available at: https:// www.straitstimes.com/singapore/education/nearly-1-in-3-poly-grads-makes-it-to-a-local-uni

Singapore's GCE A Level is acceptable at grades Distinction and A–E in lieu of UK's GCE A level on a subject for subject basis.

Contextual Indicators

Geo-demographic Data

- No set metrics, unlike the UK, although more informal criteria can be used e.g. type of housing student lives in – approximately 78% of Singaporeans live in public housing, 16% in condominiums and private apartments, 5% in landed housing.⁸¹
- · Whether the student live in a rented government flat
- Postcode is generally not a good determinant of income level

Educational Background

- What stream the student was in in secondary school
- What kind of pre-tertiary institution they attended (JC/Poly/ITE)
- If the student attended a JC, the rank of the student's JC (based on O Level cut-off points)

Individual Circumstances

- · Students' eligibility for Ministry of Education Edusave bursaries (means-tested)
- Students' eligibility for the Straits Times Pocket Money Fund
- Recipients of means-tested school-based scholarships and need-based bursaries

⁸¹ Singstat. (n.d.). *Households*. Available at: https://www.singstat.gov.sg/find-data/search-by-theme/households/households/latest-data

Sweden

Education System

The Swedish education system is based on the School Law (2010:800), which details the purpose and objectives of the education system in Sweden. It conveys the main values and principles of education that should be expressed through the content and teaching of primary and secondary schooling.

Primary and Lower Secondary Education

From the age of 6, it is compulsory for children to attend preschool (*förskola*). Then, from the age of 7, all children attend compulsory comprehensive school, before moving on to Grades 1-9. Primary and Lower-Secondary education is divided into three stages: *lågstadiet* ($1^{st} - 3^{rd}$ grade), *mellanstadiet* ($4^{th}-6^{th}$ grade), and *högstadiet* ($7^{th} - 9^{th}$ grade).

Children attending primary school are awarded grades at the start of the autumn term of year 6. From year 7 onwards, students are awarded new grades at the end of each school term (autumn and spring).

A final grade is awarded in year 9, at the end of the spring term. This grade is used to apply for *gymnasieskola* – non-mandatory upper-secondary vocational/ pre-university schooling.

A six-point (A to F) grading scale is used. A-E are pass grades and F is a fail. Mandatory national exams form part of the final grade (not a pre-set percentage) and students are examined for the subjects Swedish (or Swedish as a second language), English, Mathematics, one of the social study subjects and one of the Science subjects. The national exams are weighted more significantly than other forms of assessment but cannot be the subject teacher's only ground for final grade assessment.

No grade will be awarded for a subject or course if pupil absenteeism is high, as there is insufficient information to assess the pupil's knowledge. Instead of a grade, the subject or course is to be marked with a dash (-) in the educational records.⁸²

Awarding grades in practice⁸³

For each subject and course, there are assessment rubrics (standards) for grades E, C and A, which outlines the standards the pupil needs to achieve in order to be awarded that particular grade.

⁸² Riksdagen. (2010). *Skollag (2010:800)*. Available at: https://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/skollag-2010800_sfs-2010-800

⁸³ Ibid.

Grade D shall be awarded when a pupil has met all parts of the knowledge requirements for grade E and a considerable share of the knowledge requirement for grade C. Correspondingly, the grade B shall be awarded when a pupil has met all parts of the knowledge requirement for grade C and a considerable share of the knowledge requirement for grade A.

Upper Secondary Education⁸⁴

There are 18 national upper-secondary programmes: 6 pre-university programmes and 12 vocational programmes. Each programme is 3 years long. The various upper secondary programmes are either vocational or preparing pupils for higher education. The grading system is identical to that of the primary education grading system. In order to successfully complete an upper-secondary programme, students must receive a passing grade in a mandatory 'upper-secondary project' (*gymnasiearbete*) that demonstrates their preparedness for work or higher education. The subject of the project should reflect the material of the subjects and/ or courses that the student is taking. For this project, E is the passing grade, while F denotes failure to meet the project and overall course requirements necessary for graduation.

Pre-university Education⁸⁵

The upper secondary programmes that prepare for higher education are the following: Business Management and Economics, Arts, Humanities, Natural Science, Social Science, Technology.

A 6-point grading scale (A, B, C, D, E and F) is used. A-E are pass grades, while F is a fail. Each completed course is graded. Once pupils have been awarded a grade for all courses (all 3 years) and for the project work included in their study plan, they are awarded a final grade.

Everyone takes national exams, for the subjects Swedish (or Swedish as a second language), English and Mathematics. The exams only serve as a support for the teacher who will set the grades based on several factors and results over the course.

To obtain an upper secondary qualification from a higher education program you need to meet following requirements:

- At least 2250 passed points from an education that includes 2500 points. (One course is normally 100 points)
- Passing grade (at least E) in the courses Swedish 1,2 and 3 or Swedish as second language. 1,2 and 3

⁸⁴ Ibid.

⁸⁵ Ibid.

- Passing grade in English 5 and 6
- Passing grade in Mathematics 1
- Passing project work, 100 points

Since the examination is not standardised, application are completed by submitting a grade average of **ALL** courses taken during the 3 year program. A=20p,B=17,5p,C=15 p, D=12,5p, E=10p.

Sweden does not have clear tracks and the programmes can be mixed. The important thing is the common requirements for all university preparatory programs.

Course	% awarded Grade A (2017)	% awarded grade A (2016)	% awarded grade A (2015)
English 5	15.0	12.4	12.2
English 6	15.3	12.6	12.3
English 7	16.7	16.7	17.4
Swedish 1	9.5	9.4	7.4
Swedish 2	13.8	12.9	11.3
Swedish 3	14.8	14.4	13.1
Mathematics 1	8.6	7.0	6.8
Mathematics 4	14.0	14.0	12.5
Chemistry 2	22.7	21.9	19.5
Physics 2	16.7	15.5	15.0
Biology	29.0	27.5	25.4

Value of Scores⁸⁶

Contextual Indicators

Primary and Lower-Secondary Education⁸⁷

The Swedish educational system allows parents to choose a school within their municipality that they want their child to attend, by applying for up to seven different public primary schools (*grundskolor*). The local government has a legal duty to provide a place for the child in a local public school. Most Swedish schools are both public and state funded. All children attending school are provided with free lunches and a monthly 'child grant' (1,250 SEK). Some public primary schools have special entry requirements for the unique programmes that they may have (e.g. schools with special programmes in music, sports, advanced Math, or English, etc).

The local government decides which children to admit to a particular school, based on the 'proximity principle' – each government decides, based on local factors, if a

⁸⁶ Ibid.

⁸⁷ Skolverket. (2020). *Betyg Skolverket*. Available at: https://www.skolverket.se/innehall-a-o/landningssidor-a-o/betyg#Text.

school is located `near the home'. Local governments may not consider references from previous schools or otherwise, when making their decision to admit a child.

Varying between different municipalities, some children may be offered *skolskjuts* – a free means of transportation to and from school – if they live far away from the chosen *grundskola*. For most students, this means a free student bus card. However, local governments do not guarantee that students who choose a school located particularly far away from their home address will be granted *skolskjuts*.

Considering both the 'proximity principle' and the availability of free transportation, students naturally tend to enrol in schools that are closer to their homes. As a result, students living in less advantaged communities tend to enrol in school that are closer to these communities. Although parents may want to (and are free to) enrol their children in high-performing schools that are usually located in urban/wealthier areas, they are less likely to be admitted because of their lack of proximity. Hence, students from less advantageous backgrounds may not have equal access to the wealth of educational resources available at other institutions in practice, which could affect their overall performance.

Upper-Secondary Education⁸⁸

Students applying for pre-university and vocational programmes in Sweden are admitted solely on the basis of grades and there is greater freedom when it comes to selecting a school that is further away from the student's residence. As with secondary schools, students that go on to pursue an upper-secondary programme are provided with a monthly 'study grant' (1,250 SEK) after the 'child grant' no longer expires at age 16. Generally, governments will provide students that live farther than 4km away with free bus/train cards during term time, which enables them to commute to distant schools.

Very few schools have additional entrance exams, and those which do will usually have special language or skill requirements for the unique programmes which they offer. For example, sports programmes require a particular level of skill within that sport prior to admission, as with IB programmes that have an English language requirement that is tested prior to grade-based enrolment.

Besides these exceptions, no other factors besides final grades upon graduation from the 9th grade, are considered in the application process. Primary schools (*Grundskolor*) send their students' grades to a municipality-wide application portal. Hence, which *gymnasium* a student has attended does not necessarily indicate their socio-economic background and popular high schools admit students with the highest GPAs among all applicants. However, whether students are able to attain the necessary GPA to enrol in their desired high school in the first place can (to

⁸⁸ Centrala Studiestödsnämnden (CSN). (2020). *Hur fungerar det med studiebidraget på gymnasiet?* Available at: https://www.csn.se/fragor-och-svar/hur-fungerar-det-med-studiebidragetpa-gymnasiet.html.

a smaller degree) be influenced by the student's home address during *grundskola* and the resources they had available to them at the time of application.

United States

Education System

Primary Education

Prior to higher education, American students attend primary and secondary school for a total of 12 years. These years are referred to as the 1st through 12th grades. Around age 6, U.S. children begin primary school, which is most commonly termed 'elementary school.' The cut-off between primary and secondary school usually exists around 5th or 6th grade depending on the state and school district.

Secondary Education

Secondary school consists of two programs: the first is 'middle school' or 'junior high school' from either the 6th to 8th or 7th to 8th grade, and the second program is 'high school' from 9th to 12th grade. A diploma or certificate is awarded upon graduation from high school. After graduating high school (12th grade), U.S. students may go on to college or university. College or university study is known as 'higher education.'

Grading System

All American students must submit academic transcripts as part of their application for admission to university. Academic transcripts are official copies of your academic work. In the U.S. this includes your 'grades' and 'grade point average' (GPA), which are measurements of your academic achievement. Courses are commonly graded using percentages, which are converted into letter grades. In general, letter grades are translated into GPA scores by the following breakdowns:

Letter Grade	Percentage	GPA
А	93-100%	4.0
A-	90-92%	3.7
B+	87-89%	3.3
В	83-86%	3.0
В-	80-82%	2.7
C+	77-79%	2.3
С	73-76%	2.0
C-	70-72%	1.7
D+	67-69%	1.3
D	63-66%	1.0
D-	60-62%	0.7
F	0.0	0.0

The interpretation of grades has a lot of variation. For example, two students

who attended different schools both submit their transcripts to the same university. They both have 3.5 GPAs, but one student attended an average high school, while the other attended a prestigious school that was academically challenging. The university might interpret their GPAs differently because the two schools have dramatically different standards.

In addition, GPAs are further complicated by the existence of 'weighted' vs 'nonweighted' GPAs. To better represent the difficulty of honours-level or Advanced Placement (AP) curriculum as compared to standard-level coursework, sometimes schools will grant an additional 1.0 GPA point for every honours or AP course on the transcript. By this scale, an A would result in a 5.0 as opposed to a 4.0, and a B would result in a 4.0 as opposed to a 3.0. In this way, it is possible for high-achieving students to attain weighted GPAs that are above a 4.0.

Pre-university Education

In the United States, there is a large variation in high school curriculums. Geographically, high school standards and curriculums differ between every single US state, every school district throughout the state, and the cities within the districts themselves. Moreover, the types of high schools can largely be grouped into the following categories: a) private schools, b) public schools, c) private college preparatory schools (that are usually linked with an elite university), d) public college preparatory schools (although public, these schools may have selective entrance examinations).

Transitively, the graduation standards and requirements of one's high school greatly varies for each locality and therefore, most universities admissions evaluate the student's academic records based on what their school district offers on a localised basis then a national standard. However, it is important to also note that whilst most, if not all US states do have standardised annual exams for their students, these exams are mostly to evaluate the school district's performance than the student themselves. Most if not all US universities do not base a student's academic record on these standardised state exams but rather a combination of: GPA, SAT test scores, extracurriculars, letters of recommendation and personal essays.

Below you will find some common-found course tracks that are available in American high schools, but it is important to note that these tracks are based off of one high ranking public Californian high school and these course listings do not speak for the entirety of the American high school system.

Regular/Honours Class Track

Students must take courses in English, Mathematics, Biology, Chemistry, History, Physical Education, Foreign Language, and Visual/Performing Arts in order to graduate high school. All enrolled students are automatically entitled to enrolment in the 'regular' version of each class, but high middle school GPA's, high grades in the introductory high school classes, and/or high placement test scores qualify students for more advanced, 'honours' classes in the aforementioned subjects.

The Advanced Placement (AP) and International Baccalaureate (IB) programs are both high school programs that offer college-level courses and the opportunity to earn college credit. Most high schools only offer one or the other, while some high schools offer both or none at all.

Advanced Placement/AP Classes Track

Advanced Placements classes are college-level high school classes that students must either a) test into the class and/or most likely b) received high marks in their introductory level classes to qualify. These classes help bolster the academic rigor in a student's college application, may qualify in helping a student test out of future college classes, and also be simultaneously used to complete graduation requirement (for example if a student took AP US History, instead of just standard US History). The amount of AP classes offered by the school varies, moreover, AP classes are accounted in two ways a) students take both the class in their high school as well as take the exam offered and/or b) self-study the AP exam if their school/schedule does not have or allow the chosen subject.

In other words, AP is a program focused on teaching students specific content and testing their knowledge on the exams. There is more multiple-choice and emphasis on meeting certain content goals. One can take AP exams without being enrolled in a class, but you have to be enrolled in an IB class to take an IB exam. If one has proficiency in a language not offered by your school, or if a student wants to self-study for a niche subject like Art History, the AP program gives more flexibility.

International Baccalaureate Track

The IB program is much less common than AP. Over 2 million students took AP exams in 2014, but only about 135,000 took IBs. Furthermore, according to AP, over 30% of US public high students took at least one AP exam. While AP is quite widespread, the IB program is rarer since schools have to be able to offer enough classes for the diploma to host an IB program. Adding IB is often cost-lier than starting a few AP classes. The programs have different goals, as well. IB has more emphasis on writing and developing critical thinking skills – and not just on the exams themselves. The IB diploma also requires the extended essay, a long, college-style research paper. The IB program also has extracurricular requirements.

SAT/ACT

For entrance into most colleges in the US, students are required to take either the SAT (Scholastic Aptitude Test) or ACT (American College Testing). (However, due to coronavirus, some colleges are waiving these requirements for future years). The SAT is a multiple choice and free answer exam consisting of four sections (Reading, Writing and Language, Math with Calculator, Math without Calculator), as well as an optional essay. The SAT is taken out of 1600 points, with 800 points to Math and Reading+Writing respectively. The scale for both sections has a lowest possible score of 200, and a highest possible score of 800. There is no penalty for wrong answers. The optional essay is not included in the overall score. The essay is graded with 3 scores on a scale from 2-8, one score each in Reading, Analy-sis, and Writing. The SAT implementing organization (Collegeboard) also offers SAT Subject Tests, otherwise known as SAT2 tests, which are required by some universities, such as Georgetown, California Institute of Technology, and Cornell. Other colleges will consider, but not require them. These tests are an opportunity to showcase additional knowledge or expertise in one of many subjects, from sec-ond languages to subjects such as Physics, US History, and Literature.

The ACT is a multiple-choice exam consisting of 4 sections (English, Math, Reading, Science), as well as an optional Writing Test. Test-takers receive a composite score on a scale from 1-36. The composite score is an average of the scores on the 4 test sections (each score being on a scale of 1 to 36). There is no penalty for wrong answers on the ACT. The writing test is not included in the composite score. If you take the optional writing test, you will receive an overall score on a scale from 2-12.

One of the most important features of both the ACT and the SAT is that **you can take either exam as many times as you wish.** Both tests are offered 7 times a year. You can also choose to send whichever ACT or SAT score you desire to the colleges to which you apply- if you take the SAT in May and get a 1350, but take it again in June and receive a 1450, you are free to only send colleges the better score. Likewise, if you get a 1500 on the SAT, but you get a 36 on the ACT, you can choose to send only the ACT score.

Structure and Timing	SAT	ACT
Testing time	3 hours + 50-minute essay (optional)	2 hours 55 minutes +40-minute essay (optional)
Structure	3 tests + optional essay	4 tests + optional writing test
Number of questions	154	215
Number of breaks	3	2
Time per questions	1 minute, 10 seconds	49 seconds
Score range	Composite 400 – 1600 (SAT Essay: reported in 3 dimensions, each 2 – 8)	Composite 1 – 36 (writing do- main scores: 2 – 12)

Below is a brief comparison of each test in terms of timing and scoring:⁸⁹

⁸⁹ College Board. (2018). *Should You Take the SAT or ACT?* Available at: https://blog.college-board.org/should-you-take-sat-or-act

Writing and Language lest: 35 minutes, 44 questions Math Test: 80 minutes, 58 ques- tions Math Test: 60 minutes, 60 ques- tions Science Test: 35 minutes, 40 questions	Test length and timing	Reading Test: 65 minutes, 52 questions Writing and Language Test: 35 minutes, 44 questions Math Test: 80 minutes, 58 ques- tions	Reading Test: 35 minutes, 40 questions English Test: 45 minutes, 75 questions Math Test: 60 minutes, 60 ques- tions Science Test: 35 minutes, 40 questions
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The SAT and ACT tests are meant to create more equality in the realm of college admittances. Since the tests cover curriculum and skills that all American high schoolers are supposed to have encountered no matter their method of schooling, the score can often offset other aspects of the application. For example, if a student has a lower GPA, but a great SAT or ACT score, this can demonstrate that the high schooler still has the 'problem-solving skills' as well as 'language, reading and writing' skills required to succeed in higher education. Likewise, if a student doesn't have access to a variety of extracurriculars or resume-building activities that students in better funded schools may have, then the SAT can show their academic promise. So, in many ways, the SAT and ACT can serve to level the playing field. Despite this intention, however, SAT and ACT prep classes, tutoring, and practice questions are often only accessible to higher income brackets, often further exacerbating educational disparities. However, there is a large amount of free resources available online for test prep. Both the ACT and SAT implementing organizations provide a number of free practice questions as well as full tests, previously used. Currently, taking the SAT costs \$47.50 (\$64.50 with the optional Essay) and the ACT costs \$50.50 (\$67 with the optional writing portion). However, fee waivers are available for both of these tests.

Value of Scores

AP and IB

Colleges do not automatically consider AP or IB harder or more impressive on a transcript. Since IB is a rarer program, they cannot penalise students for not taking it. Plus, there are huge differences in how both AP and IB courses are taught and graded at high schools across the country. Because of this, colleges – especially the most selective ones – just want to see you have taken the most challenging course load available at your high school. That means instead of worrying about AP versus IB, one should worry about taking the most rigorous classes in high school. For example, Princeton says on their admissions website, 'Whenever you can, challenge yourself with the most rigorous courses possible, such as honours, Advanced Placement (AP) and dual-enrolment courses. We will evaluate the International Baccalaureate (IB), A-levels or another diploma in the context of the program's curriculum.'

In most cases, a high passing score – for example a 7 on IB or a 5 on AP – is what will earn a student a course credit in college. But one thing to keep in mind is that

while IB higher-level courses are usually accepted by colleges, standard-level IB courses aren't always taken. In contrast, AP is offered at one level. Furthermore, many colleges have slight variances in credit hours between AP and IB, which could affect the decision between the two programmes. For example, at Stanford, the IB and AP credit lists are mostly the same, with Language, Math and Physics getting the exact same credit.

However, a student can get more credit for IB Chemistry than AP Chemistry. Some colleges, however, tend to give AP more credit. For example, UC Boulder generally gives AP Language exams more weight than IB language exams. Some colleges give more credit for IB. The University of Michigan generally gives more credit hours for IB classes.

The bottom line is that AP and IB credit are both widely accepted, but there are lots of slight differences in credit policies that can be adopted by a particular university.

SAT and ACT

Average scores on the 2019 SAT for all of its takers⁹⁰

Note: ERW refers to Evidence-Based Reading and Writing

Total	Test Takers		Mean Score			Met Benchmarks			
	No.	Percent	Total	ERW	Math	Both	ERW	Math	None
Total	2,220,087	-	1059	531	528	45%	68%	48%	30%
Took Essay	1,410,113	64%	1088	545	543	51%	71%	53%	26%

Average ACT scores in 2017, both section and composite⁹¹

Section	Average ACT Score
English	20.3
Math	20.7
Reading	21.4
Science	21.0
Composite	21.0

⁹⁰ College Board. (2019). *SAT Participation and Performance*. Available at: https://re-ports.collegeboard.org/pdf/2019-total-group-sat-suite-assessments-annual-report.pd-f#page=3&zoom=100,-142,731

⁹¹ ACT. (2017). Average ACT Scores by State. Available **at:** https://www.act.org/content/dam/ act/unsecured/documents/cccr2017/ACT_2017-Average_Scores_by_State.pdf

Average scores of the ACT and SAT of the admitted class of several highly selective universities, along with the ACT and SAT policies for the 2020-2021 year⁹²

School	Applies to Class Year(s)	Policy Details	No. of Ap- plicants	Acceptance Rate	SAT Total 25 th – 75 th percentile	ACT Total 25 th – 75 th percentile
Stanford University	2021	Stanford has adopted a 1-year, test optional pol- icy for applicants in the 2020-2021 admission cycle. Stanford does not offer merit-based aid.	47452	4.3%	1440–1570	32 – 35
Harvard College	2021	Harvard has adopted a 1-year, test optional pol- icy for applicants in the 2020-2021 admission cycle. Harvard does not offer merit-based aid.	42749	4.7%	1460–1580	33 – 35
Princeton University	2021	Stanford has adopted a 1-year, test optional policy for 1 st year and transfer applicants, both domestic and international. Stanford does not offer merit-based aid.	35370	5.5%	1440–1570	32 – 35
Columbia University	2021	Columbia has adopted a 1-year, test optional pol- icy for applicants in the 2020-2021 admission cycle. Columbia does not offer merit-based aid.	40203	5.5%	1450 – 1560	33 – 35
Yale Uni- versity	2021	Yale has adopted a 1-year, test optional policy for applicants in the 2020-2021 admission cycle. Yale does not offer merit-based aid.	36844	6.1%	1460–1570	33 – 35

⁹² Sawyer, A. (2020). SAT and ACT Score Ranges for Popular Colleges and Universities. Available at: https://www.compassprep.com/college-profiles/


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