



Universiteit
Leiden

Leiden University College
The Hague

LUC Mathematics proficiency requirements

Admission 2023-2024

LUC offers a Liberal Arts and Sciences programme and all students are expected to have a general understanding of mathematics. The minimum mathematics proficiency requirements are stated in this document.

Important notes:

- The mathematics proficiency requirements are an addition to the diploma requirements. Without meeting the diploma requirements you cannot be admitted
- The fact that a diploma and/or Mathematics level/grade is stated does not mean your mathematics skills are sufficient nor do they guarantee success in LUC's mathematics course
- This list provides minimum requirements and the Admissions Committee can always determine that you need to take the Mathematics diagnostic exam
- Applicants who do not meet the stated mathematics requirements can still apply for our programme, but need to include a mathematics improvement plan on the LUC Application form
- We advise you to review the mathematics course content in [the e-prospectus](#) to assess whether you have the required skills to pass this course

Basic mathematical skills required for admission to Liberal Arts and Sciences: Global Challenges are as follows:

Quadratic functions

Solutions by factorisation

Solutions by using quadratic formula

Solving systems of linear equations

Two linear equations/two unknown variables

Linear equations

Polynomial functions

Exponential functions

Logarithmic functions

Trigonometry (solving simple trigonometric equations)

Asymptotes (horizontal, vertical and slant via long division)

Calculations with integers/fractions

Powers and roots

Special products

Fractions with letters

Derivatives

Power and fractional exponents/roots

Extrema

Derivatives logarithmic/exponential/trigonometric functions, product rule/chain rule

If you require further information regarding admission to Liberal Arts and Sciences: Global Challenges, please contact [LUC's Admissions Office](#).



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Click on your diploma/country name to go straight to the relevant information.

(International) Diplomas:

- VWO Diploma - Netherlands
- Boswell-Bèta – certificate
- SAT or ACT mathematics
- Online Mathematics Placement Test - A ([OMPT-A](#))
- Cambridge or Pearson International Examinations
- Caribbean Advanced Proficiency Examination (CAPE)
- European Baccalaureate
- International Baccalaureate (IB)
- US high school diploma from an international school outside the US

National diplomas:

| | | |
|------------------------|--------------|--------------------|
| Algeria | Hungary | Portugal |
| Argentina | Iceland | Romania |
| Aruba | India | Russian Federation |
| Australia | Indonesia | Serbia |
| Austria | Iran | Singapore |
| Belgium | Ireland | Sint Maarten |
| Bosnia and Herzegovina | Israel | Slovakia |
| Brazil | Italy | Slovenia |
| Bulgaria | Japan | South Africa |
| Canada | Jordan | Spain |
| Chile | Korea, South | Surinam |
| China | Latvia | Sweden |
| Colombia | Lithuania | Switzerland |
| Croatia | Luxembourg | Taiwan |
| Curaçao | Malaysia | Thailand |
| Cyprus | Malta | Tunisia |
| Czech Republic | Mexico | Turkey |
| Denmark | Moldova | Ukraine |
| Ecuador | Morocco | United Kingdom |
| Estonia | Netherlands | Scotland |
| Finland | New Zealand | Wales |
| France | Norway | United States |
| Georgia | Panama | Venezuela |
| Germany | Peru | Vietnam |
| Greece | Philippines | |
| Hong Kong | Poland | |

(International) Diplomas

VWO Diploma - Netherlands

- Wiskunde B grade 6
- Wiskunde A grade 7
- Wiskunde C grade 8

Boswell-Bèta - certificate

- VWO Mathematics A grade 7

SAT or ACT mathematics

- ACT Math score 28
- SAT Mathematics score 650

Online Mathematics Placement Test (OMPT)

- [OMPT-A](#) Math with minimum score of 70% (max. 3 attempts)

Cambridge or Pearson International Examinations

- A-Level Mathematics grade B
- AS-Level Mathematics grade A
- Cambridge Pre-U: Mathematics grade M2 (merit 2)

Caribbean Advanced Proficiency Examination (CAPE)

- Double unit Mathematics grade III

European Baccalaureate

- Mathematics 5 periods written examination grade 7.0
- Mathematics 3 periods written examination grade 8.0

International Baccalaureate (IB)

- Mathematics Analysis & Approaches Higher Level: grade 4
- Mathematics Analysis & Approaches Standard Level: grade 4
- Mathematics Applications & Interpretation Higher Level: grade 4
- Mathematics Applications & Interpretation Standard Level: grade 6

US high school diploma from an international school outside the US

- AP Calculus AB or BC grade 4 from the College Board

- ACT Math score 28
- SAT Mathematics score 650

National diplomas

Algeria

- National Examination Mathematics score 14

Argentina

- Mathematics in final year score 8

Aruba

- VWO Mathematics A grade 7

Australia

- Australian Capital Territory Year 12 Certificate: Mathematics major T course grade B
- New South Wales Higher School Certificate: Mathematics unit category A Board Developed Course Band 5
- Northern Territory Certificate of Education and Training: Mathematics stage 2 20-credit Tertiary Admissions Subject with grade B
- Queensland Certificate of Education before 2020: Mathematics Authority subject HA. From 2020: Mathematics as Senior External Examination subject with grade B
- South Australian Certificate of Education: Mathematics 20-credit Tertiary Admissions Subject with grade B
- Tasmanian Certificate of Education: Mathematics (year 12) at TQA level 3/ TCE level 5 / C Syllabus level grade B/HA
- Victorian Certificate of Education: Mathematics grade B in grade 12 unit 3 or unit 4
- Western Australia Certificate of Education: Mathematics Year 12 ATAR/WACE course grade B

Austria

- Mathematics final year score 2

Belgium

- Mathematics final year grade 70

Bosnia and Herzegovina

- Mathematics final year score 4

Brazil

- ENEM Mathematics result of 600 and a final high school score of 8 for mathematics

Bulgaria

- National Mathematics exam with final grade of at least 5.5

Canada

- Diplome d'Etudes Collegiales – Préuniversitaire: final year mathematics 70% and subject score higher than class average
- Ontario Secondary School Diploma: Mathematics grade 12 Pre-U course with a score of 80%
- Alberta High School Diploma: Mathematics grade 12 S3 course score of 85%
- British Columbia Senior Secondary Graduation Diploma: Mathematics grade 12 course score 85%
- Manitoba High School Graduation Diploma: Mathematics awarded at grade 12 in S, G or U course score of at least 85%
- New Brunswick High School Graduation Diploma: Mathematics grade 12 academic (level 2) course score of at least 85%
- Newfoundland and Labrador High School Graduation Diploma with Academic Status: mathematics level 3000 (grade 12) course score of at least 85%
- Nova Scotia High School Graduation Diploma: Mathematics grade 12 either academic (ACAD) or advanced (ADV) score of at least 85%
- Saskatchewan Transcript of Secondary Level Achievement (grade 12): Mathematics grade 12 (level 30) course score of at least 85%
- Yukon Certificate of Graduation: Mathematics grade 12 course score of at least 85%

Chile

- Final year mathematics score of 6 and a score of 650 for the Prueba de Selección Universitaria (PSU) mathematics exam and the Puntaje ranking

China

- Final score of at least 90% in mathematics and a GaoKao score of at least 120 (out of 150) for mathematics

Colombia

- Final year mathematics score of at least 85% or 8,5 out of 10 or 4,6 out of 5

Croatia

- Final year mathematics score 4 and Matura exam mathematics on higher/extended level score 4

Curaçao

- VWO Mathematics A grade 7

Cyprus

Greek part:

- Final national exam Mathematics score of 18

Turkish Part:

- Final year mathematics grade of 8

Czech Republic

- Final mathematics score 'very good' including in the Matura exams

Denmark

- Mathematics level B grade 7

Ecuador

- Final year mathematics grade of 8.5 and an Examen de Acceso a la Educación Superior (ENES/Ser Bachiller) score of at least 800

Estonia

- Final school result at least 4 for Extensive Mathematics and Extensive Mathematics on state examination result >70%

Finland

- Final year mathematics grade Magna Cum Laude Approbatur (5)

France

- Mathématique Complémentaires year 12 (Terminale) grade 13 or Mathématique Spécialité year 12 (Terminale) grade 10

Georgia

- Final year mathematics score 9

Germany

- Final Abitur exam Mathematics grade 10 in the written examination

Greece

- Final year mathematics score of 17 and a final score for mathematics of 15 in the Pan-Hellenic state exams

Hong Kong

- Core subject Mathematics score of 5

Hungary

- Mathematics Advanced Level grade 4

Iceland

- Mathematics final year grade 7.5

India

- All India Senior School Certificate (CBSE) Mathematics final year score 70% and a Positional grade of A2
- Indian School Certificate (CISCE) Mathematics final year score 70% and a Positional grade of A2
- Higher Secondary Certificate (State Boards) Mathematics final year score 90%

Indonesia

- Final score of at least 80 in mathematics

Iran

- Final year mathematics score of at least 15

Ireland

- Leaving Certificate: Mathematics Higher Level grade H3

Israel

- Unit level 4 or 5 Mathematics with grade 90%

Italy

- Final year mathematics grade 7

Japan

- Final year Mathematics score of 4 out of 5

Jordan

- Final year mathematics percentage 80%

Korea, South

- A mark of A (or rank 2 out of 9) in Mathematics and a CSAT Stanine score of 1-3 in Mathematics

Latvia

- State examination mathematics score 50%

Lithuania

- State examination A-Level Mathematics grade 80%

Luxembourg

- Final year mathematics score 44

Malaysia

- Sijil Tinggi Persekolahan Malaysia with principle pass: mathematics grade B
- Matriculation Certificate (Matrikulasi) with principle pass: mathematics grade B

Malta

- Final year mathematics grade B

Mexico

- Final year score of 9.0 for mathematics and mathematics on the EXANI test

Moldova

- A result of 9.0 in the Bacalaureate exam for Mathematics

Morocco

- National Examination mathematics score 14

Netherlands

- Mathematics course in first year at WO level with a grade 7.0. You can also meet the mathematics requirement based on your secondary education. Check the country/diploma for the minimum requirements applicable to your situation
- Mathematics at HBO level is considered case by case. You can also meet the mathematics requirement based on your secondary education. Check the country/diploma for the minimum requirements applicable to your situation

New Zealand

- Mathematics Educational Achievement Level 3 with Excellence Endorsement

Norway

- Mathematics final exam subject grade 4

Panama

- Final mathematics score of 4.5 (> 90%)

Peru

- Final year mathematic grade of 16 ('Muy Bueno' - very good)

Philippines

- High school level mathematics insufficient for admission. Only relevant university Bachelor diplomas and mathematics on university level may be considered for admission

Poland

- Written exam subject Advanced/Extended level mathematics score 60%

Portugal

- Final year mathematics score of 15 and mathematics national (entrance) exam on the Classificações para Acesso ao Ensino Superior (ENES)

Romania

- Diplomă de Bacalaureate - Filiera Teoretică (theoretical track): final exam mathematics in final year score 9

Russian Federation

- A final score of 5 in mathematics or a score of 70 for mathematics in the Yediniy gosudarstvenniy ekzamen (EGE)

Serbia

- Final year mathematics grade 4

Singapore

- H2 Singapore-Cambridge GCE A-level in mathematics grade B

Sint Maarten

- VWO mathematics A grade 7

Slovakia

- Mathematics on Matura exam level A result 65% and high school mathematics result 3

Slovenia

- Final year mathematics grade 4

South Africa

- Final year mathematics score of 80% (Mathematical literacy is not accepted)

Spain

- Final score of 7.5 for mathematics and the university PAU/EBAU/EvAU mathematics exam score of 7.5

Surinam

- Wiskunde Q grade 7

Sweden

- Mathematics 3 score C/VG

Switzerland

- Final year mathematics grade 5.0

Taiwan

- Final year mathematics result 85% and on the GSAT

Thailand

- Final year mathematics score 3.5

Tunisia

- Final year mathematics grade of 14

Turkey

- Final year mathematics score 85%

Ukraine

- Final year mathematics at profile level with scores 11-12 and mathematics on the IEE

United Kingdom

- A-Level Mathematics grade B
- AS-Level Mathematics grade A
- Scotland:
Mathematics Advanced Higher grade B
- Wales:
A-level Mathematics grade B

United States

- AP Calculus AB or BC grade 4 from the College Board
- ACT Math score 28
- SAT Mathematics (component) score 650
- Regents Diploma (7 exams): Advanced Designation Mathematics score of 85%

Venezuela

- Final year mathematics score of at least 16

Vietnam

- Final year mathematics score of 8 in the national examinations