Specific diploma requirements for science programmes 2022-2023

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Important notes
- This is a list of the 8 most common non-Dutch / international diplomas that meet the minimum requirements for admission.
- This list does not represent any statement of equivalency or admission; additional requirements may still be imposed.
- We will only make a decision on admission once you have submitted a complete online application for admission.
- The requirements described below are valid for the academic year 2022-2023 only. Requirements can change each year. If we are already aware of any future changes, these will be mentioned in this document.
- If your diploma is not mentioned in this document:
  - take a look at this detailed overview which contains information on general admission requirements for many common diplomas, and
  - submit your application as early as possible so we can let you know in good time if you need to take additional exams.
American High School

General requirements
High School Diploma with a College Preparatory programme and minimum GPA of 3.5 out of 4.0, with 3 College Board AP exams (grades 4-5) in general academic subjects or 4 College Board AP exams (grade 3-5) in general academic subjects.

Specific requirements 2022-2023
Please note: the AP courses noted are specific requirements. The general requirement of 3 AP courses in general academic subjects may include the subjects mentioned in the specific requirements.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics</td>
<td>AP Calculus AB or BC + AP Physics 2 or Physics C (with the components Mechanics and Electricity &amp; Magnetism with one component result at least grade 3, and one at least grade 4)</td>
</tr>
<tr>
<td>Astronomy</td>
<td>AP Calculus AB or BC + AP Physics 2</td>
</tr>
<tr>
<td>Computer Science</td>
<td>AP Calculus AB or BC</td>
</tr>
<tr>
<td>Data Science &amp; Artificial Intelligence (Eng)</td>
<td>AP Calculus AB or BC</td>
</tr>
<tr>
<td>Bio-Pharmaceutical Sciences</td>
<td>AP Calculus AB or BC + AP Biology + AP Chemistry</td>
</tr>
<tr>
<td></td>
<td><em>From academic year 2023-2024 onwards: AP Calculus AB or BC + AP Biology + AP Chemistry + AP Physics 1.</em></td>
</tr>
<tr>
<td>Biology</td>
<td>AP Calculus AB or BC + AP Physics 1 + AP Biology + AP Chemistry</td>
</tr>
<tr>
<td>Molecular Science &amp; Technology</td>
<td>AP Calculus AB or BC + AP Physics 2 + AP Chemistry</td>
</tr>
<tr>
<td>Mathematics</td>
<td>AP Calculus AB or BC</td>
</tr>
</tbody>
</table>

Replacement courses / exams
If you do not meet the conditions stated above, it is possible to obtain certificates for the required subjects in the Netherlands. See:
- [https://www.rijksoverheid.nl/onderwerpen/eindexamens/staatsexamen/staatsexamen-voorgezet-Onderwijs](https://www.rijksoverheid.nl/onderwerpen/eindexamens/staatsexamen/staatsexamen-voorgezet-Onderwijs) (information only available in Dutch)
- [http://www.ccvx.nl/](http://www.ccvx.nl/) (not accepted for our bachelor’s programme Physics)
- [Online Mathematics Placement Test | OMPT (omptest.org)](http://www.omptest.org) (only for DS&AI and Computer Science – required test is OMPT-D)

Language requirements
Dutch required for all Dutch-taught programmes:
- NT2, programme II (see: [https://www.cvte.nl/taken-cvte/staatsexamens-nt2](https://www.cvte.nl/taken-cvte/staatsexamens-nt2)); or
- [Toelatingsexamen TUL Halfgevorderd](https://www.cvte.nl/taken-cvte/staatsexamens-nt2) (via Leiden University Language Centre)

Application documents
- High school transcript
- AP results, if already available, or information on which AP exams you will take
- SAT-general test score and ACT test result (if applicable)
- For Dutch-taught programmes: information on your Dutch proficiency (courses attended and exams taken)
Abitur (Germany)

General requirements
Zeugnis der allgemeine Hochschulreife (Abitur).

Specific requirements 2022-2023
Please note: all courses must be attended up to and including the final year.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Specific Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics:</td>
<td>Mathematik und Physik</td>
</tr>
<tr>
<td>Astronomy:</td>
<td>Mathematik und Physik</td>
</tr>
<tr>
<td>Computer Science:</td>
<td>Mathematik</td>
</tr>
<tr>
<td>Data Science &amp; Artificial Intelligence (Eng)</td>
<td>Mathematik</td>
</tr>
<tr>
<td>Bio-Pharmaceutical Science:</td>
<td>Mathematik, Chemie und Biologie</td>
</tr>
<tr>
<td></td>
<td>From academic year 2023-2024 onwards: Mathematik, Chemie, Physik und Biologie</td>
</tr>
<tr>
<td>Biology:</td>
<td>Mathematik, Chemie und Physik + Biologie (Leistungskurs)</td>
</tr>
<tr>
<td>Molecular Science &amp; Technology:</td>
<td>Mathematik und Physik + Chemie (Leistungskurs)</td>
</tr>
<tr>
<td>Mathematics:</td>
<td>Mathematik</td>
</tr>
</tbody>
</table>

Replacement courses / exams
If you do not meet the conditions stated above, it is possible to obtain certificates for the required subjects in the Netherlands. See:
- [https://www.rijksoverheid.nl/onderwerpen/eindexamens/staatsexamen/staatsexamen-voorgezet-onderwijs](https://www.rijksoverheid.nl/onderwerpen/eindexamens/staatsexamen/staatsexamen-voorgezet-onderwijs) (information only available in Dutch)
- [http://www.ccvx.nl/](http://www.ccvx.nl/) (not accepted for our bachelor’s programme Physics)
- [Online Mathematics Placement Test | OMPT (omptest.org)](https://omptest.org) (only for DS&AI and Computer Science – required test is OMPT-D)

Language requirements
Dutch required for all Dutch-taught programmes:
- NT2, programme II (see: [https://www.cvte.nl/taken-cvte/staatsexamens-nt2](https://www.cvte.nl/taken-cvte/staatsexamens-nt2)); or
- [Toelatingsexamen TUL Halfgevorderd](https://www.cvte.nl/taken-cvte/staatsexamens-nt2) (via Leiden University Language Centre)

English:
- Recommended for Dutch-taught programmes: CEFR level B2 or higher
- Required for English-taught programmes: English in final year of Abitur

Application documents
- Abitur transcript
- For Dutch-taught programmes: information on your Dutch proficiency (courses attended and exams taken)
ASO (Belgium)

General requirements
Belgian Algemeen Secundair Onderwijs (ASO) diploma.

Specific requirements 2022-2023
Please note: the numbers in brackets correspond with the required minimum hours per subject.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics</td>
<td>Wiskunde (4) + Fysica (1)</td>
</tr>
<tr>
<td>Astronomy</td>
<td>Wiskunde (4) + Fysica (1)</td>
</tr>
<tr>
<td>Computer Science</td>
<td>Wiskunde (4)</td>
</tr>
<tr>
<td>Data Science &amp; Artificial Intelligence (Eng)</td>
<td>Wiskunde (4)</td>
</tr>
<tr>
<td>Bio-Pharmaceutical Sciences</td>
<td>Wiskunde (4) + Biologie (1) + Chemie (1)</td>
</tr>
<tr>
<td>Biology</td>
<td>Wiskunde (4) + Fysica (1) + Chemie (1) + Biologie (1)</td>
</tr>
<tr>
<td>Molecular Science &amp; Technology</td>
<td>Wiskunde (4) + Fysica (1) + Chemie (1)</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Wiskunde (4)</td>
</tr>
</tbody>
</table>

Replacement courses / exams
If you do not meet the conditions stated above, it is possible to obtain certificates for the required subjects in the Netherlands. See:
- [https://www.rijksoverheid.nl/onderwerpen/eindexamens/staatsexamen/staatsexamen-voorgezet-onderwijs](https://www.rijksoverheid.nl/onderwerpen/eindexamens/staatsexamen/staatsexamen-voorgezet-onderwijs) (information only available in Dutch)
- [http://www.ccvx.nl/](http://www.ccvx.nl/) (not accepted for our bachelor’s programme Physics)
- [Online Mathematics Placement Test | OMPT (omptest.org)](https://omptest.org) (only for DS&AI and Computer Science – required test is OMPT-D)

Language requirements
English:
- Recommended for Dutch-taught programmes: CEFR level B2 / IELTS 6.0
- Required for English-taught programmes: IELTS 6.5/sub-scores 6.0 (or equivalent Toefl ibt or Cambridge test) required – for equivalent score see the [language requirements document](language_requirements_document).

Application documents
- ASO transcript and, if already available, your diploma
Baccalaureat (France)

General requirements
Till 2020: Baccalaureat Serie Scientifique diploma
From 2021: Baccalaureat new style.

Specific requirements 2022-2023

<table>
<thead>
<tr>
<th>Subject</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics</td>
<td>Mathematique Spécialité + Physique-Chimie Spécialité</td>
</tr>
<tr>
<td>Astronomy</td>
<td>Mathematique Spécialité + Physique-Chimie Spécialité</td>
</tr>
<tr>
<td>Computer Science</td>
<td>Mathematique Spécialité</td>
</tr>
<tr>
<td>Data Science &amp; Artificial Intelligence (Eng)</td>
<td>Mathematique Spécialité</td>
</tr>
<tr>
<td>Bio-Pharmaceutical Sciences</td>
<td>Mathematique (complémentaires or spécialité) + Physique-Chimie spécialité + Sciences Vie &amp; Terre spécialité</td>
</tr>
<tr>
<td></td>
<td>From academic year 2023-2024 onwards: Mathematique (spécialité) + Physique-Chimie Spécialité + Sciences Vie &amp; Terre Spécialité*</td>
</tr>
<tr>
<td>Biology</td>
<td>Mathematique (complémentaires or spécialité) + Physique-Chimie spécialité + Sciences Vie &amp; Terre spécialité</td>
</tr>
<tr>
<td>Molecular Science &amp; Technology</td>
<td>Mathematique Spécialité + Physique-Chimie Spécialité</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Mathematique Spécialité</td>
</tr>
</tbody>
</table>

* in effect, this will mean 2 subjects as spécialité and other required subject(s) via replacement exams.

Replacement courses / exams
If you do not meet the conditions stated above, it is possible to obtain certificates for the required subjects in the Netherlands. See:
- [https://www.rijksoverheid.nl/onderwerpen/eindexamens/staatsexamen/staatsexamen-voorgezet-onderwijs](https://www.rijksoverheid.nl/onderwerpen/eindexamens/staatsexamen/staatsexamen-voorgezet-onderwijs) (information only available in Dutch)
- [http://www.ccvx.nl/](http://www.ccvx.nl/) (not accepted for our bachelor’s programme Physics)
- [Online Mathematics Placement Test | OMPT (omptest.org)](http://www.ccvx.nl/) (only for DS&AI and Computer Science – required test is OMPT-D)

Language requirements
Dutch required for all Dutch-taught programmes:
- NT2, programme II (see: [https://www.cvte.nl/taken-cvte/staatsexamens-nt2](https://www.cvte.nl/taken-cvte/staatsexamens-nt2)); or
- [Toelatingsexamen TUL Halfgevorderd](https://www.leidenuniv.nl/international/tuh) (via Leiden University Language Centre)
- Exemptions can be granted on the basis of a Baccalaureat diploma, option International Néerlandais.

English:
- Recommended for Dutch-taught programmes: CEFR level B2 / IELTS 6.0
- Required for English-taught programmes: IELTS 6.5/sub-scores 6.0 (or equivalent Toefl ibt or Cambridge test required)
  — for equivalent score see the language requirements document.

Application documents
- Baccalaureat transcript
- For Dutch-taught programmes: information on your Dutch proficiency (courses attended and exams taken)
European Baccalaureate

General requirements
European Baccalaureate (EB) diploma

Specific requirements 2022-2023
All subjects mentioned must be attended up to and including the final year (year 7) and have a written examination.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Required Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics</td>
<td>Mathematics (5) + Physics</td>
</tr>
<tr>
<td>Astronomy</td>
<td>Mathematics (5) + Physics</td>
</tr>
<tr>
<td>Computer Science</td>
<td>Mathematics (5)</td>
</tr>
<tr>
<td>Data Science &amp; Artificial Intelligence (Eng)</td>
<td>Mathematics (5)</td>
</tr>
<tr>
<td>Bio-Pharmaceutical Sciences</td>
<td>Mathematics (5) + Biology + Chemistry</td>
</tr>
<tr>
<td>Biology</td>
<td>Mathematics (5) + Physics + Biology + Chemistry</td>
</tr>
<tr>
<td>Molecular Science &amp; Technology</td>
<td>Mathematics (5) + Physics + Chemistry</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Mathematics (5)</td>
</tr>
</tbody>
</table>

Replacement courses / exams
If you do not meet the conditions stated above, it is possible to obtain certificates for the required subjects in the Netherlands. See:
- [https://www.rijksoverheid.nl/onderwerpen/eindexamens/staatsexamen/staatsexamen-voorgezet-onderwijs](https://www.rijksoverheid.nl/onderwerpen/eindexamens/staatsexamen/staatsexamen-voorgezet-onderwijs) (information only available in Dutch)
- [http://www.ccvx.nl/](http://www.ccvx.nl/) (not accepted for our bachelor’s programme Physics)
- [Online Mathematics Placement Test | OMPT (omptest.org)](http://www.ccvx.nl/) (only for DS&AI and Computer Science – required test is OMPT-D)

Language requirements
Dutch required for all Dutch-taught programmes:
- NT2, programme II (see: [https://www.cvte.nl/taken-cvte/staatsexamens-nt2](https://www.cvte.nl/taken-cvte/staatsexamens-nt2)); or
- [Toelatingsexamen TUL Halfgevorderd](http://www.ccvx.nl/) (via Leiden University Language Centre)
- Exemptions can be granted on the basis of Dutch Language 1 or Dutch Language 2

English:
- Recommended for Dutch-taught programmes: CEFR level B2 / IELTS 6.0
- Required for English-taught programmes: IELTS 6.5/sub-scores 6.0 (or equivalent Toefl ibt or Cambridge test) required – for equivalent score see the [language requirements document](http://www.ccvx.nl/)

Application documents
- European Baccalaureate transcript and, if already available, your diploma. Please make sure the transcript shows clearly which subjects have oral examination and which subjects have written examination.
- For Dutch-taught programmes: information on your Dutch proficiency (courses attended and exams taken)
GCE (United Kingdom)

General requirements
At least 3 GCE Cambridge/Pearson A-levels (not AS levels) in general academic subjects with a grade of A, B or C.

Specific requirements
Please note: the A-levels subjects mentioned are specific requirements. The requirement of 3 A levels in general academic subjects may include the subjects mentioned in the specific requirements.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Required Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics</td>
<td>Mathematics A + Physics A</td>
</tr>
<tr>
<td>Astronomy</td>
<td>Mathematics A + Physics A</td>
</tr>
<tr>
<td>Computer Science</td>
<td>Mathematics A</td>
</tr>
<tr>
<td>Data Science &amp; Artificial Intell</td>
<td>Mathematics A</td>
</tr>
<tr>
<td>Bio-Pharmaceutical Sciences</td>
<td>Mathematics AS or A + Biology A + Chemistry A</td>
</tr>
<tr>
<td></td>
<td>From academic year 2023-2024 onwards: Mathematics A + Physics AS or A + Chemistry A + Biology A</td>
</tr>
<tr>
<td>Biology</td>
<td>Mathematics AS or A + Physics AS or A + Chemistry A + Biology A</td>
</tr>
<tr>
<td>Molecular Science &amp; Technology</td>
<td>Mathematics A + Physics A + Chemistry A</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Mathematics A</td>
</tr>
</tbody>
</table>

Replacement courses / exams
If you do not meet the conditions stated above, it is possible to obtain certificates for the required subjects in the Netherlands. See:
- http://www.boswell-beta.nl/en/exams (required level is vwo, not havo)
- https://www.rijksoverheid.nl/onderwerpen/eindexamens/staatsexamen/staatsexamen-voorgezet-onderwijs (information only available in Dutch)
- http://www.ccvx.nl/ (not accepted for our bachelor's programme Physics)
- Online Mathematics Placement Test | OMPT (omptest.org) (only for DS&AI and Computer Science – required test is OMPT-D)

Language requirements
Dutch required for all Dutch-taught programmes:
- NT2, programme II (see: https://www.cvte.nl/taken-cvte/staatsexamens-nt2); or
- Toelatingsexamen TUL Halfgevorderd (via Leiden University Language Centre)
- Exemptions can be granted on the basis of A-level Dutch or IGCSE Dutch 1st lang

Application documents
- AS/A level certificates or statement from school with predicted A-levels. Please make sure the transcript clearly shows the level of the subjects.
- For Dutch-taught programmes: information on your Dutch proficiency (courses attended and exams taken)
International Baccalaureate

**General requirements**
International Baccalaureate diploma. Only the full IB diploma (with the specific requirements mentioned below) is sufficient. IB course certificates only are not sufficient.

**Specific requirements**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physics</strong></td>
<td>Analysis &amp; Approaches HL + Physics HL</td>
</tr>
<tr>
<td><strong>Astronomy</strong></td>
<td>Analysis &amp; Approaches HL + Physics HL</td>
</tr>
<tr>
<td><strong>Computer Science</strong></td>
<td>Analysis &amp; Approaches HL</td>
</tr>
<tr>
<td><strong>Data Science &amp; Artificial Intelligence (Eng)</strong></td>
<td>Analysis &amp; Approaches HL</td>
</tr>
</tbody>
</table>
| **Bio-Pharmaceutical Sciences**              | Analysis & Approaches SL/HL or Applications & Interpretation HL + Biology HL + Chemistry HL  
*From academic year 2023-2024 onwards:* Analysis & Approaches HL + Biology HL + Chemistry HL + Physics SL |
| **Biology**                                  | Analysis & Approaches SL/HL or Applications & Interpretation HL + Biology HL + Chemistry HL + Physics SL |
| **Molecular Science & Technology**           | Analysis & Approaches HL + Physics SL + Chemistry SL                       |
| **Mathematics**                              | Analysis & Approaches HL                                                   |

**Changes to IB mathematics curriculum**
The following IB mathematics requirements apply to diplomas obtained before 2021:

- Programmes requiring Analysis & Approaches HL: Math HL can instead be accepted
- Other programmes: both Math SL and H are accepted

**Replacement courses / exams**
If you do not meet the conditions stated above, it is possible to obtain certificates for the required subjects in the Netherlands. See:

- [https://www.rijksoverheid.nl/onderwerpen/eindexamens/staatexamens/staatexamens-voorgezet-onderwijs](https://www.rijksoverheid.nl/onderwerpen/eindexamens/staatexamens/staatexamens-voorgezet-onderwijs) (information only available in Dutch)
- [http://www.ccvx.nl/](http://www.ccvx.nl/) (not accepted for our bachelor’s programme Physics)
- [Online Mathematics Placement Test | OMPT (omptest.org)](https://omptest.org) (only for DS&AI and Computer Science – required test is OMPT-D)

**Language requirements**
Dutch required for all Dutch-taught programmes:

- NT2, programme II (see: [https://www.cyte.nl/taken-cyte/staatsexamens-nt2](https://www.cyte.nl/taken-cyte/staatsexamens-nt2)); or
- [Toelatingsexamen TUL Halfgevorderd](https://www.languagecentre.leidenuniv.nl/toelatingsexamen) (via Leiden University Language Centre)
- Exemptions can be granted on the basis of IB Dutch A HL/SL or Dutch B HL

English required for English-taught programmes:

- English-taught IB or English A HL

**Application documents**

- Transcript and diploma or a recent transcript and/or predicted grades. Please make sure the transcript shows clearly the level of the subjects taken.
- For Dutch-taught programmes: information on your Dutch proficiency (courses attended and exams taken)
**VWO (Suriname)**

**General requirements**
Suriname VWO diploma

**Specific requirements 2022-2023**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics</td>
<td>Wiskunde 1 + Natuurkunde</td>
</tr>
<tr>
<td>Astronomy</td>
<td>Wiskunde 1 + Natuurkunde</td>
</tr>
<tr>
<td>Computer Science</td>
<td>Wiskunde 1</td>
</tr>
<tr>
<td>Data Science &amp; Artificial Intelligence (Eng)</td>
<td>Wiskunde 1</td>
</tr>
<tr>
<td>Bio-Pharmaceutical Sciences</td>
<td>Wiskunde 1 + Biologie + Scheikunde</td>
</tr>
<tr>
<td>Biology</td>
<td>Wiskunde 1 + Natuurkunde + Biologie + Scheikunde</td>
</tr>
<tr>
<td>Molecular Science &amp; Technology</td>
<td>Wiskunde 1 + Natuurkunde + Scheikunde</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Wiskunde 1</td>
</tr>
</tbody>
</table>

**Replacement courses / exams**
If you do not meet the conditions stated above, it is possible to obtain certificates for the required subjects in the Netherlands. See:
- [https://www.rijksoverheid.nl/onderwerpen/eindexamens/staatsexamen/staatsexamen-voorgezet-onderwijs](https://www.rijksoverheid.nl/onderwerpen/eindexamens/staatsexamen/staatsexamen-voorgezet-onderwijs) (information only available in Dutch)
- [http://www.ccvx.nl/](http://www.ccvx.nl/) (not accepted for our bachelor’s programme Physics)
- [Online Mathematics Placement Test | OMPT (omptest.org)](http://www.ccvx.nl/) (only for DS&AI and Computer Science – required test is OMPT-D)

**Language requirements**

**English:**
- Recommended for Dutch-taught programmes: CEFR level B2 / IELTS 6.0
- Required for English-taught programmes: IELTS 6.5/sub-scores 6.0 (or equivalent Toefl ibt or Cambridge test) required – for equivalent score see the language requirements document.

**Application documents**
- VWO transcript and, if already available, your diploma