

Admission Requirements

For the **Chemistry** bachelor's programme (study year 2024-2025)

General Information

Prerequisite for being admissible to this programme is that the level of your secondary school diploma is (at least) equivalent to the Dutch "vwo"- diploma*.

In this document, you will find the requirements for the most frequently obtained diplomas. If your diploma is not mentioned on one of the following pages, it may be because its level is not equivalent to the Dutch "vwo"-level. To make sure, please send an email to the International and Admissions Office of the Faculty of Science to find out about your specific situation (admissionsforbachelors@science.ru.nl).

If your diploma does not meet this requirement, your application will not be taken into consideration. All applications will be assessed individually by the Board of Examiners on their eligibility.

Once it is established that your secondary school is of sufficient level, the following may apply:

- Specific course, and/or grade requirements for the subjects from the field of Science (Mathematics, Physics, Chemistry and/or Biology) may have been set.
- Specific requirements may have been set regarding school- or exam profiles.
- In some cases, the Board of Examiners may ask for an additional exam in one (or more) of the Science subjects.
- These additional exams are solely intended to eliminate deficiencies in a limited number of subjects, and not to compensate for any possible difference in level of diploma, nor to make up for an insufficient grade for the subject in question in your regular high school diploma.
- SAT's are not taken into consideration for admission purposes by the Faculty of Science.

Meeting our admission requirements is mandatory. They reflect the basic level of knowledge necessary to study this programme. Therefore, they are not to be considered as suggestions.

Although the information in this document is put together with the utmost care and should be free of errors, no rights can be derived from its content. The Board of Examiners may deviate from these requirements at its own discretion.

We highly value academic integrity. Therefore, in case of (suspected) fraudulent behavior regarding any aspect of the application procedure, we expressly reserve the right to immediately reject the suspect application. The candidate whose application was rejected because of suspicion of fraudulent behavior will be barred from future applications at Radboud University.

* <https://www.nuffic.nl/en/education-systems/the-netherlands/primary-and-secondary-education#vwo-diploma>

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Country and Diploma Specific Information

Albania

Diplomë e Maturës Shtetërore.

Relevant subjects: Chemistry, Mathematics, Physics.

Next to Mathematics, Physics and Chemistry must be the 2 elective subjects in the Matura.

The GPA in the final year must be at least 7 out of 10, the grades for all relevant subjects in the final year must be at least 7 out of 10.

The GPA in the Matura must be at least 8 out of 10, the grades for all relevant subjects that were taken in the Matura must be at least 8 out of 10.

Australia

All states/territories (except Queensland); Certificate of Education + ATAR (Australian Tertiary Admission Rank) ≥ 85 .

Queensland; Certificate of Education + OP (Overall Positions) bands/score 1 to 7.

Pre-university curriculum in Senior Secondary School, including the following relevant subjects:

Mathematics, Chemistry and Physics.

Austria

Reifezeugnis or Reifeprüfungszeugnis from a Gymnasium or Realgymnasium.

Relevant subjects: Chemistry, Mathematics and Physics.

In the case of 5 subjects taken in the Reife, they must be: German, 2nd language, Mathematics, Physics and Chemistry. If there are only 4 subjects in the Reife, then Physics must be in the Reifeprüfung, Chemistry must be taken throughout the Oberstufe.

All grades in the Reifeprüfung must be 3 or higher. Grades for all relevant subjects must be 2 or higher in the Reifeprüfung and Oberstufe.

Bangladesh

2 years Bachelor (passed) at university in Chemistry.

Belgium

Flanders: Diploma van secundair onderwijs.

Wallonia: Certificat d'enseignement secondaire supérieur.

Relevant subjects: Chemistry, Mathematics and Physics.

All relevant subjects must have been taken in the final exam.

All grades must be at least 6 or 60%.

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Brazil

Certificado de Conclusão do 2º Grau + 1 year of academic education in Chemistry, or Certificado de Conclusão de Ensino Médio + 1 year of academic education in Chemistry.

Relevant subjects: Chemistry, Mathematics and Physics.

Well above average results (Medio Superior/Bom or Superior/Excelente) in the ENEM (Exame Nacional do Ensino Médio) for the relevant subjects and in the first academic year of Chemistry.

Bulgaria

Diploma za Sredno Obrazovanie, academic stream, Natural Sciences profile. Other profiles are not taken into consideration for admission purposes.

Relevant subjects: Chemistry, Physics and Mathematics.

Either Physics or Chemistry must be in the Matura. The other relevant subject must be at least in the final year.

Overall GPA of the final year as well as in the Matura should be at least 5 out of 6, grades for the relevant subjects must be 6 out of 6. The Science subject that was not in the Matura (Physics or Chemistry) must be taken up to and including the final year in High School.

If there is no specific indication on the diploma that it is a Natural Science profile, it is assumed that it is not and therefore not taken into consideration for admission purposes.

Canada

Secondary School diploma with the STEM pathway. For admission purposes we may look into university high School rankings.

Relevant subjects: Chemistry, Mathematics and Physics.

All relevant subjects must be on University Level.

The GPA and all grades for the relevant subjects must be well above passing level.

Caribbean

CAPE (Caribbean Advanced Proficiency Exam), awarded by CXC (Caribbean Examination Council).

Relevant subjects: Chemistry, Mathematics and Physics.

All relevant subjects must be two units and must have been passed.

At least 4 subjects of 2 units must have been passed.

China

Senior middle school graduation certificate (Gaozhong) together with national entrance examination (Gaokao). Gaokao score of minimum 550 (from a maximum of 750) for Beijing Region. For other regions other scores may apply.

Relevant subjects: Chemistry, Physics and Mathematics.

All relevant subjects must be taken in the Gaokao with relatively high sub scores.

Croatia

Svjedodzba o drzavnoj maturi from a Gymnazijum with at least 5 subjects in the Matura.

Relevant subjects: Chemistry, Mathematics and Physics.

Next to Mathematics (A-level), Physics and Chemistry must be in the Matura.

All grades in the final year (including those for the Matura) must be at least 4 out of 5.

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Cyprus

Apolytirio, Natural Sciences specialization.

Relevant subjects: Chemistry, Physics and Mathematics.

Physics and Chemistry must be examined. Mathematics may but does not need to be examined. If not examined it must be taken up to and including the final year.

GPA must be at least 17. Grades for the relevant subjects must be 18 or higher.

Czech Republic

Vysvědčení o maturitní zkoušce obtained at a Gymnázium.

Relevant subjects: Chemistry, Mathematics and Physics.

Compulsory matura subject: Mathematics.

Compulsory elective matura subjects: Chemistry and Physics.

Grades for the relevant subjects must be 1 or 2.

Not more than a total of 9 points for 4 matura subjects (11 points if a 5th matura subject is taken).

Denmark

Studentereksamenbevis or Bevis for Højere Forberedelseksamen.

Relevant subjects: Chemistry, Mathematics and Physics.

All 3 relevant subjects must have been taken in the Natural Science cluster on A-level.

All grades should be 7 or higher.

Estonia

Gümnaasiumi Lõputunnistus.

Relevant subjects: Chemistry, Mathematics and Physics.

The final exam must have at least 5 subjects, including the relevant subjects.

For Mathematics the version Lai Matemaatika with at least 14 courses is compulsory.

Grades for the relevant subjects must be 4 (B) or higher; grades for all other subjects must be 3 (C) or higher.

European Baccalaureate

Relevant subjects: Chemistry, Mathematics, Physics.

Mathematics (5 periods) is compulsory.

All relevant subjects must be in the written exams with at least a passing grade (5).

Finland

Ylioppilastutkintotodistus/Studentexamensbevis.

Relevant subjects: Chemistry, Mathematics and Physics.

Compulsory in matriculation: Mathematics and General Studies.

Compulsory in final year: Chemistry and Physics.

Matriculation grades at least 4 (out of 7), or C, M, E, or L.

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France

Diplôme du baccalauréat général.

Relevant subjects: Chemistry, Physics and Mathematics.

Compulsory specialties in year 11 (première): Mathematics (Spécialité) + Physics/Chemistry.

Compulsory specialties in year 12 (terminale): Mathematics (Spécialité) + Physics/Chemistry.

Grades for all relevant subjects should be at least 12/20 in the final year and the final examinations.

No English proficiency test needed when the OIB (Option International Baccalaureate) is taken.

Germany

Zeugnis der allgemeinen Hochschulreife.

- Chemistry (Lk) + Mathematics (Lk/Gk). Either Physics or Biology should be taken up to and including the final year of High School and can (but need not) be taken in the Abitur.

OR

- Physics (Lk) + Mathematics (Lk/Gk). Either Chemistry or Biology should be taken up to and including the final year of High School and can (but need not) be taken in the Abitur.

- The (specifically mentioned) "LK" should have a grade 09 or higher, all other Science subjects should have a 07 or higher.

- English language certificate: Not needed if English was taken during High School, with a minimum grade 08 in the final year (English can but need not be taken in the Abitur).

- All grades mentioned are on a scale from 0-15.

Greece

Apolytirio, Natural Sciences specialization.

Relevant subjects: Chemistry, Physics and Mathematics.

Physics and Chemistry must be examined. Mathematics may but does not need to be examined. If not examined it must be taken up to and including the final year.

GPA must be at least 17. Grades for the relevant subjects must be 18 or higher.

Hungary

Gimnáziumi Érettségi Bizonyítvány.

Relevant subjects: Chemistry, Mathematics, Physics.

Physics must be the elective (5th) exam subject, Chemistry must be in the final year in high school and must be taken as a Boswell/CCVX exam.

Exam grades for Mathematics and Physics (both on higher/advanced level) must be 4 or higher. The other three exam subjects must have a total of at least 8 points. Only one subject can have a grade 2 or higher, the other two must have at least a grade 3.

Iceland

Stúdentspróf (obtained at a Menntaskóli). Natural Sciences, including Mathematics, Physics and Chemistry.

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India

Standard XII School Certificate (from either CISCE or CBSE), only academic stream from the science cluster.

Relevant subjects: Chemistry, Mathematics and Physics.

For both Certificates, all 3 relevant subjects are required subjects in the exam.

5 academic subjects must have been passed with a result of at least 85%. For CBSE certification only A1 or A2 grades are taken into consideration.

Non-externally examined courses do not count towards meeting the required minimum number of courses, nor to the grade requirement for the five courses as mentioned above.

Indonesia

Ijazah Sekolah Menengah (SMA) from an Indonesian Top School (*) (Natural Sciences Profile) grants direct admission, if at least Mathematics, Physics and Chemistry are examined in the final exams.

Minimum grades of 70% are required for the last 6 semesters/3 years.

(*) Determining which schools are Top Schools is done at the discretion of the Admissions Officers of Radboud University

International Baccalaureate

Diploma Programme (not Career-related programme) with an overall score of at least 30 points (not including points for CAS, EE and ToK). All grades must be 4 points or higher.

Relevant subjects: Chemistry, Mathematics and Physics.

At least two out of the three relevant subjects must be on HL, of which Physics HL is a requirement. The third subject must be on HL or SL.

Mathematics: only A&A (HL or SL) is accepted. A&I is not accepted.

Subjects from Group 6 (the Arts), will not be considered for admission purposes (HL nor SL), and must be replaced by a 2nd subject from the Science group (Group 4).

Ireland

Leaving Certificate Established (LCE) with at least 6 exam subjects, of which at least 2 on Higher Level.

Relevant subjects: Chemistry, Mathematics and Physics.

All 3 relevant subjects must be examined of which 2 on HL and 1 on OL.

All grades (HL and OL) must be 4 and up.

Leaving Certificate Vocational Programme is not taken into consideration for admission purposes, nor are subjects from the Applied Science group.

Israel

Te'udat Bagrut with at least 21 units.

Relevant subjects: Chemistry, Mathematics and Physics.

Mathematics must have 4 or 5 units.

The other relevant subjects must each have 3 or more units.

All grades must be "almost good" or higher.

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Italy

Diploma di Superamento dell'Esame di Stato Conclusivo from a Liceo Scientifico.

Relevant subjects: Chemistry, Mathematics and Physics.

All relevant subjects must be examined, with a minimum score of 6.0.

A Diploma from a Liceo Linguistico, Classico or Science Umane is not taken into consideration for admission purposes.

Kazakhstan

Nazarbayev Intellectual Schools (NIS) Year 12 Certificate.

The NIS certificate should include the following subjects: Chemistry, Mathematics and Physics.

All grades must be at least 4.5 out of 5.

OR

Atestat from a regular Kazakh secondary school + one year of University in Chemistry with sufficient grades.

Chemistry, Mathematics and Physics must have been in the final exams of secondary school.

Kosovo

Gjimnazit, or Diplomë për Kryerjen e Shkollës së Mesme të Lartë – Gjimnazit.

Relevant subjects: Chemistry, Mathematics and Physics.

All relevant subjects must be in the diploma.

All grades must be 4 or 5 (out of 5).

Latvia

Atestāts par vispārējo vidējo izglītību in the exact (natural) sciences cluster.

Relevant subjects: Chemistry, Mathematics and Physics.

All relevant subjects must be in the Centralized Examinations.

All grades should be at least 7 out of 10.

Lithuania

Brandos Atestas (Mathematics & Natural Sciences stream).

Seven or eight Matura subjects, of which at least four are state exams on A-level.

Relevant subjects: Chemistry, Physics and Mathematics.

At least Mathematics A-level, Physics A-level and Chemistry A-level must be in the final central state examinations.

All grades in the final year for the relevant subjects must be at least 8, all other subjects at least 7.

All grades in the Matura for relevant subjects must be 86 or higher, all other subjects 36 or higher.

Luxembourg

Diplôme de fin d'études secondaires classiques, Spécialisation sciences naturelles et mathématiques.

Relevant subjects: Chemistry, Physics and Mathematics.

All grades must be 35 or higher, grades for the relevant subjects must be 40 or higher.

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Malaysia

Sijil Tinggi Persekolahan Malaysia/Matriculation Certificate.

Relevant subjects: Chemistry, Mathematics and Physics.

All specified relevant subjects must be examined.

STPM Cumulative GPA must be at least 2.67; grades for relevant subjects must be 3.00 or higher.

Unified Examination Certificate with a GPA of at least 75%; grades for relevant subjects must be 80% or higher.

Mexico

Bachiller + at least 1 year academic education at a university in Chemistry with above average grades.

Moldova

Diploma de bacalaureat, science (real) profile with a grade 8.01/B or higher.

Relevant subjects: Chemistry, Mathematics and Physics.

Mathematics and Physics must be taken in the final exams; Chemistry must be taken in the final year and may, but need not be examined.

GPA in the final year must be at least 9.01/10. Grades of all exam subjects must be at least 9.01/10.

Grades of all relevant subjects not in the final exam must be at least 9.01/10.

Morocco

Attestation du Baccalauréat + at least 1 year academic education in Chemistry.

New Zealand

NCEA Level 3 (NZQF level 3/EQF level 5), with sufficient credits from general level 3 subjects. 14 Credits Chemistry (level 3), 14 credits Physics (level 3), 14 credits Mathematics (level 3) (no Statistics and Probability).

Norway

Vitnemål for Videregående Skole, General Studies specialisation Natural Science and Mathematics.

Mathematics, Physics and Chemistry must be taken in the final exam. All grades in the final year and the final exams must be 4 or higher.

Pakistan

Bachelor of Science (pass) in Chemistry.

Panama

Bachillerato + 1 year of academic education in Chemistry.

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Poland

Świadectwo dojrzałości issued by Okręgowa Komisja Egzaminacyjna.

Relevant subjects: Physics, Mathematics and Chemistry.

All relevant subjects must be taken in the Maturity on advanced level, minimum grades 50%.

The GPA in the final year must be at least 4 out of 6, grades in the final year for relevant subjects must also be at least 4 out of 6.

Portugal

Diploma/Certificado/Certidão do Ensino Secundário (ciências e tecnologias) + at least 1 year of academic education in Chemistry.

Romania

Diploma de Bacalaureat (with Liceul theoretic), Profil Real, specialisation Natural Sciences.

Relevant subjects: Chemistry, Mathematics and Physics.

Either Chemistry or Physics must be taken in the National Baccalaureate Exam.

The relevant subject that was not examined in the Bacalaureat (Chemistry or Physics) must be taken in the final year of high school.

Overall GPA in year 11 and 12 must be at least 8 out of 10. Grades in the final year and the Baccalaureate for specifically relevant subjects must be at least 9 out of 10. GPA of the examined subjects in the Bacalaureat must be at least 9 out of 10.

Russia

Attestat o Srednem (Polnom) Obshchem Obrazovanii / Attestat Zrelosti (including Biology, Chemistry, Physics and Mathematics, the exact level will be individually assessed) + at least 1 year of academic education in Chemistry.

Silver and gold medals in relevant Olympiads on city, regional or national level, as well as high school grades, will be considered for admission purposes and may lead to exemption from the 1 year of academic education.

Serbia

Diploma o stecenom srednem obrazovanju or Diploma/Uverenje o položenom maturalnom ispitu.

Mathematics must be in the Matura, Chemistry and Physics must be in the final year of high school.

All grades in the Matura and the final year of high school must be 4 or higher.

Singapore

Singapore-Cambridge GCE A-level in at least 3 H2 + 1 H1 content-based subjects + General

Paper/Knowledge and Inquiry (5 different subjects in total). H2 subjects must include Physics, Chemistry and Mathematics.

Grades for all H1 and H2 must be B or higher, grade for H3 (if any) must be "Distinction" or "Merit".

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Slovakia

Vysvedčenie o maturitnej skúške (obtained at Gymnázium).

Relevant subjects: Chemistry, Mathematics and Physics.

Exam subjects: Slovak, English, Mathematics + either Chemistry or Physics + Boswell/CCVX Physics or Chemistry (the subject that was not in the final exams).

Mathematics + either Physics or Chemistry must have a grade 1 or 2. Slovak and English could have a grade 1, 2 or 3, the total number of points for the four final exam subjects not exceeding 9.

Slovenia

Splošna Matura (obtained at a Gimnazia).

Relevant subjects: Chemistry, Physics and Mathematics.

Next to the three compulsory subjects (Slovenian/Hungarian/Italian, Mathematics and a foreign language)

Physics and Chemistry must be the two elective subjects in the Matura.

All grades in the Matura and the final year must be 4 out of 5 (or 8 out of 10) or higher.

South Africa

National Senior Certificate with 7 examination courses with an overall average result of 75% for five courses (not included Life Orientation and Mathematical Literacy).

+ 1 Independent Examination Board (IEB) Advanced Programme Certificate (Mathematics or English) with a result of at least 55%.

Subjects in the National Senior Certificate must at least include Mathematics, Physics and Chemistry.

South Korea

A high school certificate from a Science High School (grades 80 and higher) which should include Mathematics, Physics and Chemistry. If the score is lower than 80, then CSAT is needed (160+ for each of the 3 obligatory subjects, 80+ for the elective subject "science").

OR

A General High School diploma plus having passed at least 1 year of university study in Chemistry.

Spain

Titulo de Bachiller, modality ciencias, plus a Selectividad certificate (EBAU).

Relevant subjects: Chemistry, Mathematics, Physics.

Physics and Chemistry must be examined in the Selectividad.

Grades for the relevant subjects must be at least 6 in the Bachillerato as well as in the Selectividad.

PCE exams (Specific Competency Tests) instead of the Selectividad (EBAU) are also accepted for admission purposes. PCE: minimum of 4 subjects, including Mathematics, Physics, Chemistry.

Sweden

Slutbetyg från Gymnasieskolan, Naturvetenskapsprogrammet/Natural Science Programme, at least including Mathematics, Physics and Chemistry.

On a grading scale from A-F (A is highest pass, E is lowest pass, F is fail), grades must be B or higher.

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Taiwan

Senior High School Diploma + 1 year of academic education in Chemistry.

Turkey

Lise Diploması after 4 years of general secondary education.

Required relevant subjects: Chemistry, Mathematics and Physics. All these subjects must be taken in the natural science cluster.

Overall GPA in year 10, 11 and 12 must be at least 85 The grades for all relevant subjects in year 10, 11 and 12 must be at least 85 out of 100.

Ukraine

Svidotstvo pro здобуття повної загальної середньої освіти.

Required relevant subjects: Chemistry, Mathematics and Physics.

Grades for all relevant subjects must be between 10-12 (4th level/high).

United Kingdom

(International) General Certificate of Secondary Education ((I)GCSE) in 6 subjects or more, plus a(n)

(International) General Certificate of Education (I)GCE with 3 (or more) subjects on advanced level (A-level).

Relevant subjects: Chemistry, Mathematics and Physics.

At least 2 of the 3 (or more) (I)GCE A-levels should be a relevant subject. The 3rd (I)GCE A-level is non-specific.

One of the (I)GCSE subjects should be the third relevant subject if not examined at (I)GCE A-level.

At least 6 (I)GCSE's, all AS-levels and 3 (I)GCE A-levels should have grade B or higher. In the new grading system (1-9), all grades should be 6 and higher.

Non-academic subjects (such as: Art & Design, Music, Music Technology, Drama & Theatre Studies, Design & Technology, Food preparation & Nutrition, etc.) are not taken into account, and do not count towards the minimum number of subjects required for both (I)GCSE and (I)GCE A-levels.

United States

High School Diploma with 4 or more AP (Advanced Placement) Certificates, issued by the College Board.

Relevant subjects: Chemistry, Physics and Mathematics.

Compulsory AP certificates: Calculus AB or BC, Chemistry, Physics 1 and Physics 2.

All AP certificates must have a minimum score of 3 out of 5.

High School GPA must be at least 3.5 out of 4.

Non-academic courses in High School are not taken into consideration and will not count towards the GPA.

Vietnam

Bang Tot Nghiep Pho Thong Trung Hoc from a High School of the gifted.

Relevant subjects: Mathematics, Physics and Chemistry.

GPA in the final year of at least 8, grades for all relevant subjects must be at least 9.