

Undergraduate and Graduate Opportunities at CERN for UK Students

Application Guidance and Advice

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Introduction

There's no better way to learn than on-the-job. When that job happens to be in a world-famous organisation and centre of scientific excellence, even better. CERN has opportunities for undergraduates and graduates in a wide range of fields including computing, engineering, languages, finance, communication, and, of course, physics. Learn about these opportunities, and others, in the information below, as well as some top tips for how to increase you chance of success in your application.

Remember that, above all, CERN is looking for enthusiastic and engaging students who are passionate about the importance of fundamental research and are hungry to learn!

N.B. CERN undergraduate and graduate opportunities are only available to applicants that are a national of one of CERN's Member States or Associate Member States. The UK is a Member State of CERN.

Opportunities for Undergraduates

Technical Student Programme (link)

These are 'industrial experience' placements for undergraduate and Master's students. Students can apply for a placement of 4 to 12 months, but those applying for the full 12 months are favoured. There are currently 156 Technical students at CERN.

Example fields include particle detector physics and their applications, analysis and simulation, data processing, radiation studies, beam instrumentation, optics, lasers, cryogenics, vacuum and thermodynamics.

- CERN provides an allowance of 3319CHF (net of tax) and 2.5 days of paid leave per month.
- ➤ CERN offers ~240 positions annually
- Application deadlines: early March and October every year

Administrative Student Programme (link)

These are 'practical training' placements for undergraduate and Master's students. Students can apply for a placement of 2 to 12 months, but those applying for the full 12 months are favoured. There are currently 28 administrative students at CERN.

Example fields include translation, human resources, advanced secretarial work, business administration, logistics, law, finance, accounting, library and information science, engineering management, science communication, education, audiovisual, communication and public relations, psychology and audit.

- CERN provides an allowance of 3319CHF (net of tax) and 2.5 days of paid leave per month.
- CERN offers ~30 positions annually
- Application deadlines: early March and October every year

Summer Student Programme (link)

These are placements for undergraduate and Master's students in Physics, Engineering, Computer Science or Mathematics. Students must have a minimum of three years of full-time studies at university level by the start date of the placement and can apply for a placement of up to three months. There were 351 summer students at CERN in 2020.

- CERN provides a modest stipend and accommodation.
- CERN offers ~300 positions annually
- Application deadline: January every year

Opportunities for Graduates

Doctoral Student Programme (link)

These are 1-3 year placements for doctoral students who are already enrolled with a member state University. The students live at CERN and work on a research project with a CERN supervisor, but return to their University to write up their thesis under the guidance of their University supervisor. The degree is awarded by the University. CERN awarded 63 doctoral studentships in 2020.

Example fields include applied physics, IT, mathematics, electricity, electronics, mechanical or civil engineering, instrumentation for accelerators and particle physics experiments, materials science, radiation protection, safety and environmental protection, science communication, surveying, ultra-high vacuum.

- CERN provides an allowance of 3719CHF (net of tax) and 2.5 days of paid leave per month.
- CERN offers ~80 positions annually
- Application deadlines: early March and October every year

Fellowships (link)

These are 1-3 year graduate contracts open to anyone who has graduated within the last four years from Bachelors, Masters or PhD studies. All departments at CERN take Fellows, but the level of previous study and experience required varies by department. For example groups working on Physics projects are likely to be looking for PhD graduates, whereas IT groups may want BSc or MSc graduates with more emphasis on industrial experience. CERN awarded 329 fellowships in 2020.

- ➤ CERN provides an allowance in the range 5305-8178 (net of tax) depending on experience, and 2.5 days of paid leave per month.
- CERN offers ~220 positions annually
- Next application deadline: March and September every year

Technician Training Experience Programme (link)

These are 1-2 year placements for technicians who have no more than four years' relevant experience after finishing a technical diploma.

Example fields include electronics, electricity, mechanics, IT, vacuum, cooling and ventilation, safety, radioprotection and survey engineering.

- CERN provides an allowance of 4585CHF (net of tax) and 2.5 days of paid leave per month.
- CERN offers ~40 positions annually
- Application deadline: open all year round

CV Guidance

Top level tips:

- Aim to fit your CV on no more than two pages.
- Aim to be clear, concise, relevant and impactful.
- Use bullet points to explain your experience and achievements and avoid narrative style
 recruiters have little time to read it.
- Tailor your CV to the position you are applying for focus on and highlight what is most relevant in your experience for the position in question.
- Mistakes will be noticed check and double check the spelling and grammar!

Education and academic experience:

- List all relevant qualifications from A Level (or equivalent) to present date in reverse chronological order (most recent at the top).
- Present your grade as either 'top X% of you class', or '1st/A*' but avoid using '2:1 honours' style as this is a UK classification that is purely understood in Europe.
- Avoid giving your X% overall grade as European countries tend to have higher grade boundaries than the UK, for example, 70%, while good in the UK would not be very good in most European institutions.
- If you are applying for a year between studies, placing an expected grade could be beneficial to show improvement or consistency.

Information to include:

- Work/practical experiences: if you have worked in a lab or completed a summer placement/internship at a company, university or institution, you should list it as experience even if it is not in the subject area you are applying for. Highlight any examples you have of experience in the fields that CERN lists in the application form, and make sure to mention relevant coursework, lab work, experimental and theoretical studies you have undertaken. You can even highlight specific modules you have taken that are relevant to the role you are applying for, or ones that you will be taking in the future.
- **Publications**: include any publications you have been involved with prior to your submission, whether you are a named author or have contributed in another way.
- **Scholarships and awards**: highlight any academic prizes or scholarships you have been awarded with a short explanation of how and why you gained the award.
- **Skills**: highlight any relevant skills that could be beneficial towards your application e.g. programming/web design, computational skills or use of engineering software.
- Extracurricular activities: include any roles of responsibility you have had outside of academic work e.g. on a committee, leading a team, organising an event, maintaining a website, and highlight the impact you made e.g. increased the membership of a club by X%, improved the user-experience of a website, or won sponsorship. You may also want to highlight a hobby or skill you have outside of academic work to show your dedication and passion for another area.
- References: you will need to provide at least one referee with your application.

For more tips, you can read CERN's CV advice here.

Application Advice

Motivation letter: when letting CERN know about your interest for working there, you must focus your answer on you and what you can offer CERN. CERN already knows how amazing it is! Think about why you are interested in the specific position for which you are applying and what you can contribute to CERN.

Available dates: you will need to submit a set of possible starting and ending dates. You will be unlikely to be considered for a placement beginning more than a few months after the application date, therefore it is heavily encouraged that you wait for the March application deadline if you would like to start at CERN in the late Summer. Studentships are offered for 4-12 months but applicants who can offer a full 12 months are very much favoured.

FAQs

What kinds of people will I meet at CERN?

Every year almost 11,000 people from over 100 countries use CERN's infrastructure, so perhaps the better question is 'who won't I meet at CERN?'. But seriously, CERN is full of enthusiastic, friendly and encouraging people who are just as excited to be there as you are. And contrary to common belief, the vast majority of people working at CERN are not physicists – there people working in engineering, computing, law, communications, HR, translation and many more areas, so you will meet people from a wide range of backgrounds and interests.

What is it like moving to another country?

Exciting! But we understand that moving to another country can be daunting, but CERN has been supporting students with their move abroad for decades so there is lots of support and information available to make the move as smooth as possible. Once at CERN people often find the work, environment and location to provide a unique experience that they don't regret.

Will Brexit affect my application?

No, the UK has left the EU but it is very much still a Member State of CERN (as it has been since 1954, pre-dating the EU by almost a decade!).

Is CERN only for super-topflight or Oxbridge students from the UK?

No! Previous UK students that have be awarded placements from CERN have come from a wide range of institutions and backgrounds, including the University of Sheffield, Bath, Bristol, Lancaster, Royal Holloway, Birmingham, Brunel, Imperial, Liverpool, Glasgow, Queen Mary, Warwick, Swansea and Edinburgh.

Do I need to speak French to be considered?

No. CERN has two official languages, English and French, and you only need to have knowledge of one of these to work at CERN. However, going to work at CERN will provide you with many opportunities to learn French.

I've heard Geneva is expensive, does the CERN salary account for this?

CERN's salaries for students are very good and they are tax-free (see each programme webpage for the monthly stipend). The salaries are enough to pay for rent and all your essentials to live comfortably live in Geneva, Switzerland or over the border in France, as well as have some money left over to spend on leisure and travel.

Find Out More

On CERN's website:

- Follow the link by each programme above or google '<u>CERN Jobs</u>' to read the detailed programme descriptions and find the link to apply.
- Read testimonials of current and previous fellows, students and graduates on CERN's <u>Our People</u> page.
- CERN's Tips for Applying.
- CERN Jobs <u>FAQs</u>.

On Youtube, the CERN Jobs Youtube channel has many interesting videos, including short

conversations with current/previous <u>CERN employees</u>, including those specifically in <u>computing</u>, <u>engineering</u>, and <u>technical roles</u>.

On STFC's website there is some advice for those applying to CERN's <u>student opportunities</u>.