



Careers, subject areas and choosing your *Spécialités*

Presentation for 2nde students & parents
Thursday 12 December 2024





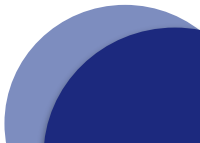
Thinking about your study choices: subject areas

Higher and further education is generally organised into different subject areas, which will vary across institutions. Examples include: Arts, Business, Sciences, Mathematics, Languages, Social Sciences, Law, Engineering & Construction, Humanities, Health etc.

In this presentation we will focus on two very broad **subject areas**.

- Sciences & Mathematics
- Humanities

We'll look at what **careers**, **skills** and **qualifications** they can lead to and how to best **prepare to apply** to them.





Why are *Spé* choices important for university applications outside France?

1. *Spé* choices that support your application are a good way to demonstrate your interest in and commitment to certain subject areas.
2. In some cases, specific *Spé* subjects are required if you want to apply to certain courses or universities. This is especially the case in STEM subjects.
3. In some cases, such as North American, Netherlands and UK applications, *Spé* choices are treated ‘advanced’ or ‘honours’ subjects, which tells the university that you have studied them to an advanced level.





Interested in studying Science & Maths?



Why study sciences & maths?

Studying science doesn't mean you will have to become a professor, or spend all your time locked away in a lab.

Science graduates can be found all over the world and account for some of the highest earners.

A science or mathematics degree will offer you:

- high employability
- a challenging academic education
- opportunities for travel
- being at the cutting edge of human knowledge.

Some Potential careers...

- Journalism, communication & publishing
- Public health
- Development & sustainability
- Animal conservation
- Treatment & drug research & development
- Building, construction & engineering
- Computer game & movie development
- Finance
- Museum, National Park & zoo sector
- Cosmetics & beauty
- Food development
- Fashion
- Managing and planning for natural disasters
- Intelligence
- Space exploration

What is Science?

“Knowledge acquired according to the scientific method” - Karl Popper.

The field of Science includes:

- Physical sciences - physics and chemistry and their sub-subjects such as astrophysics and biochemistry.
- Life sciences - medicine, dentistry, veterinary medicine, pharmacology, biology, zoology, anthropology.
- Earth sciences - including geology, paleontology,
- Computer sciences - including robotics
- Engineering sciences - including the diverse branches such as civil, structural, mechanical, electrical and chemical engineering.



Transferable skills from a science education

- problem solving
- persuasive writing
- public speaking
- coding
- technical skills - lab work, production, construction
- analytical reasoning and evaluation
- deductive reasoning and logic
- project management and development
- field work and outdoor skills
- biohazard management
- competencies at cutting edge technology





What degree will I study?

The standard undergraduate course leads to a **Bachelor of Science** (BSc) degree. However...

Science degrees in the UK

Most science (biology, chemistry, physics), mathematics and engineering degrees are 4 years long and (may) include a Masters degree. Other options include:

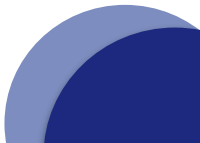
- Combined degrees in science with maths and philosophy, a foreign language etc/
- Extending your degree e.g. Medicine can be studied as direct-entry at **18yrs** (not 17yrs) and you graduate as a Doctor after 5 years of study.

Science in the Netherlands

- Similar structure to the UK, but with greater travel & work placement options.
- You can choose to take direct-entry medicine, but will have to commit to learning Dutch and practicing medicine in Holland.

Science in the US

- You can choose a science major, but you will still have to take required courses in arts and humanities in your first year.
- You cannot take direct-entry medicine at 18, and instead must take an approved pre-med Bachelors.



Spécialité choices - Maths & Science

- **Maths** is (unsurprisingly) required at a high level for degrees linked to **computer science**, **physics**, **chemistry**, **mathematics** and some **engineering** degrees. It's also required for **psychology**, which can fall between natural and social sciences. It is often very important for **economics** degrees too.
 - Talk to your science teachers & the UG team to work out what level of maths you will need: there is no point grinding away at Maths *Expert* when *Spé* or *Complémentaire* will suffice!
- For **life science** & **animal science** courses, a good level of **maths** is required, but a stronger focus is placed on **chemistry** and **biology**.
 - **You will need to take *Physique-chimie* and *SVT*.**
- Many degree programs will, over the course of your learning, require you to pick up **coding** at some level. This might be quite basic for subjects like Biology and Zoology, but will be at a higher level for Maths, Physics, Engineering and Computer Science.
 - **Numeriques et sciences informatiques** is a good option here.

Considering medicine, veterinary science or dentistry?

- The most important subject if you plan to study **medicine** is **chemistry**. This is the case for most countries.
 - Many candidates applying to the UK will take a “Prepare” course before applying to University.
 - Others undertake extensive preparatory / additional courses with private providers to ensure they have the same knowledge base as a student who had taken A-level Chemistry in England.
- You will also be expected to have undertaken extensive **practical stage or work experience** placement with a medical / vet practitioner in a clinic / hospital / practice prior to applying.
- You will need to take an **entrance exam or ‘aptitude test’**: the BMAT or UCAT. These test your workplace knowledge and skills, such as your ability to communicate with patients, dealing with confidentiality and managing difficult treatment situations, **as well as your aptitude for biomedical sciences.**
- Applications to medicine / vet / dentistry are often an **‘early admissions process’** which has much earlier deadlines than the regular admissions process. **You need to let the UG adviser know your intentions during your 2nd year.**



Studying Science in the UK?

- Students taking science A-levels in England & Wales will get between 4-6 hours of science classes each week in each subject. They will also have done a certain amount of (assessed) laboratory work, and possibly an individual science research project (EPQ - Extended Project Qualification - similar to CDM).
- The natural sciences content of the French *baccalauréat* is significantly less than this and you may find yourself at a disadvantage when applying to UK universities: check their requirements carefully!
- If you are accepted, you may be required to take additional science courses in your first year at university to help you catch up.



What should I be doing in 2nde if I want to study science?

- Get **practical experience** in your chosen subject. For example...
 - For **zoology**, have you kept a pet, worked on a farm, done a stage or volunteer work at a zoo or natural history museum? The Confluence has a young curator program for example.
 - For **medicine** get a first aid qualification and offer to do volunteer work with the Red Cross to show practical experience of medical care.
- Get **professional experience**.
 - If your 3ème *stage* experience did not align with your plan, start fixing that now. These are essential steps if you wish to make a successful application to these courses.
- Take part in any relevant **competitions** - especially the Olympiads.
- Learn **outside** the classroom. Use MOOC sites such as Coursera and Futurelearn to gain insights into subjects you haven't studied before or to learn useful skills like coding - the future will be written in [Python!](#)
- Make the most of **in-class learning** opportunities at school.
 - *Connaissance du Monde - theme 3* is linked to issues around sustainability, conservation and energy. This can help you prepare an independent research project in science for you to discuss in your applications.



Interested in studying Humanities?

What are “Humanities”?

- Arts, Liberal Arts, Humanitiesdifferent names in different countries / universities.
- Broadly speaking Humanities courses will teach you to use critical thinking to better understand the human world.
- Humanities courses include **the study of law, history, philosophy, psychology, politics, economics, religion, modern and ancient languages and literature, fine and performing arts, media and cultural studies**, just to name a few.





Why study Humanities?

If you are a creative thinker who is passionate about communication and fascinated by people and ideas, then a Humanities course might be right for you.

- **Critical Thinking:** Humanities students analyze complex ideas, evaluate evidence, and develop nuanced arguments, enhancing their ability to think critically and solve problems.
- **Communication Skills:** Through essays, presentations, and discussions, students refine their ability to articulate ideas clearly and persuasively, both in writing and verbally.
- **Cultural Awareness:** Exposure to diverse histories, philosophies, and literatures fosters an understanding of different perspectives and enhances global and cultural competence.
- **Research and Analytical Skills:** Humanities programs teach students how to gather, interpret, and synthesize information, developing research methods applicable across industries.
- **Creativity and Adaptability:** The interdisciplinary nature of humanities encourages innovative thinking and adaptability, making graduates versatile in addressing challenges in various fields.

These skills are valuable across careers such as business, education, law, public service, and creative industries.

What qualifications might Humanities lead to?

- Bachelor of Arts
 - Bachelor of Design
 - Bachelor of Psychology (Note: this course straddles both humanities and sciences - due to the maths element)
 - Bachelor of Social work
 - Bachelor of Journalism & Mass Communication
 - Bachelor of Mass Media
 - Bachelor of Animation
 - Bachelor of Commerce
 - Bachelor of Public Relations
 - Bachelor of International Development
 - Bachelor of Creative & Performing Arts
- And many, many more.....***



Will I be employable?

A Humanities degree doesn't prepare you for one specific job; it gives you the foundation for hundreds of possible careers.

Employers value creativity and critical thinking as much as technical skills or training.

Many graduate recruitment programmes for careers as diverse as **government, recruitment, financial services** and **management consulting** will take candidates with strong Humanities degrees without stipulating any specific subjects required.

Potential careers...

- Journalism
- Advertising
- Teaching
- Social work
- Politics
- International relations
- Development
- Fundraising
- Administration
- Retail
- Hospitality and tourism

Will I have to undertake further study before getting my dream job?

- It depends what your dream job is!
- Many jobs will not require further study.
- For professions requiring **certification** to practice (e.g. Teaching, Law, Counselling) further training will be required after you have completed your Bachelors.
- Something else to bear in mind is **where** you want to work post-university. A Humanities degree from that same country may hold greater value - and make you more employable - than a Humanities degree from another country or region.



Spécialité choices for Humanities courses

- Consider doing **SES** or **HGGSP** if you are working towards a Humanities degree. These subjects give you a good foundation of relevant skills that can be built upon at university. **Philosophy** will also be useful in this respect.
- Maths: with the ongoing reform of the bac, **Maths** is made compulsory all the way to Terminale.
 - Several universities around the world (including the Netherlands) require maths to have been studied in all school years even if you are applying for Humanities courses rather than Science.
 - Maths and data science are also becoming important parts of daily life and practice in social science and politics-focused degrees.



What should we be doing in Seconde?

Students & Parents: What should you be doing in Seconde?

- Start **thinking about your future plans**.
- **Research** the subject areas / careers / courses that interest you.
- **Speak** to friends and family.
- Use Unifrog and individual university **websites** to find out more about the courses that interest you.

Note on Early Admissions: applying to **Oxford, Cambridge, US Universities, medicine, veterinary medicine, dentistry or law**

- All these courses involve **early admissions** with strict deadlines so you'll need to be prepared. Some of them (like vet medicine) also require **work experience**, which you'll need to have done before you apply.
- Internal deadline: confirm your intention to apply to the above by the end of Toussaint holidays of your 1^{er} year.
- It's a good idea to also explore the financial implications / visa requirements of different choices etc at an early stage.

Using UNIFROG to research your options



Unifrog is an online platform which helps students to:

- research post-Bac study opportunities on English speaking courses throughout the world.
- organise themselves so that they can submit the strongest applications, on time and in the correct format.

Make sure your access is working correctly and get used to using it.

- Lost your Unifrog login? Reset it using your @csilyon.fr email address from the following link : <https://www.unifrog.org/reset-password>
- Never signed up? <https://www.unifrog.org/code> using the code **LYOI2027** and your @csilyon.fr email address.
- Contact university@csianglo.org if you have any problems accessing your Unifrog account.

Using Unifrog to explore your options



Discover computer science For Students

Part of Subject discovery webinar series >

For students at international schools: Computer science skills and experience are valued by employers now more than ever. Join Lancaster University Leipzig and Karel de Grote University to learn what it's like to study computer science and some of the career paths could follow with a degree in this subject.

- > Thursday 26 January @ 18:00 your school's time - 45 mins - [Sign up](#) or [Share](#)
0 students from your school signed up to this session.



Discover sciences For Students

Part of Subject discovery webinar series >

For students at international schools: There are many subjects and careers to choose from when it comes to sciences. Hear from our expert panel from Radboud and Lancaster University to find out more about these career paths and whether sciences could be the right subject choice for you.

- > Monday 23 January @ 12:00 your school's time - 45 mins - [Sign up](#) or [Share](#)
0 students from your school signed up to this session.



Skills development: Problem solving For Students

Part of Skills & Enterprise Week 2023 webinar series >

Problem-solving skills are one of the most sought after skills by employers as they mean you can adapt to different and unpredicted situations. Hear from professional services partnerships EY, PwC, and Dyson to learn how you can showcase your problem-solving skills and stand out in your application process.

- > Wednesday 8 February @ 18:00 your school's time - 45 mins - [Sign up](#) or [Share](#)
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Discover engineering For Students

Part of Subject discovery webinar series >

For students at international schools: At the heart of engineering is designing and creating based on mathematical and scientific principles. Hear from Vilnius Tech, Trinity College Dublin, Imperial College London, and Galway University to learn more, and decide whether engineering could be the subject for you.

- > Tuesday 24 January @ 12:00 your school's time - 45 mins - [Sign up](#) or [Share](#)
0 students from your school signed up to this session.



Setting up a parental account on Unifrog

- Parents can set up a **parent account** on Unifrog
- This can be used to research subjects, institutions, online courses etc and to try out the quizzes and other tools that are available.
- It is **not** linked to your child's account and not intended to be used to 'track' their progress.
- You can sign up by going to www.unifrog.com and using the following code **LYOIParents50**
- NB: Please don't be tempted to set up a 'fake' student account. Our advisers actively use Unifrog to track individual student progress and the presence of 'fake' student accounts can cause confusion.



Any Questions?

university@csianglo.org

