

**Ever thought about doing
a PhD?**

The basics

- Takes 3.5 - 4 years in the UK. Usually starts in September/October.
- Almost all STEM PhD students have their living stipend and fees paid by a grant (as opposed to self-funding).
- UK government stipend is ~£15K/year tax free. 🤨
- However funding is allocated via competition... there aren't enough studentships to fund everyone.

What does “doing a PhD” involve?

- Day to day: sitting at your desk in a shared office, working on your research.
- Collaborating with colleagues in your research group, or perhaps in other fields.
- Presenting your work at local/national/international/ conferences, maybe ~2 times per year.
- You don't need to take any more classes or exams (unless you want to). Very different to being an undergraduate!
- At the end of the ~3.5 years you hand in a PhD thesis, typically ~100 pages long which contains the results of 2 or 3 projects you did.
- Two examiners will read it and then you will do an oral “viva” exam, usually 2-3 hours (for almost all cases the exam result is pretty much a forgone conclusion: pass 😊).

Reasons to do a PhD

- Get to work on frontier, blue-sky research 🌈.
- Participate in a global research community 🌐.
- Contribute to human knowledge, tackle important problems 🙌.
- Become an expert on a topic 🧐.
- Can open doors for jobs afterwards:
 - In some industries certain jobs may require a PhD, or at least pay more for PhDs 💰.
 - Necessary step if you want to become an academic 🎓.
- For the rest of your life you can call yourself a “doctor” 😎.
(but you really shouldn’t)

Reasons to not do a PhD

- It can be a long slog. Long periods of individual work. Research can be frustrating. Mental health risk. Doesn't suit everyone.
- Opportunity cost: ~4 years of lower salary than you could get in industry, and missed experience of “the real world”.
- Academic jobs are very limited, <10% of people with PhDs stay on to become a lecturer or academic research group leader.
- Do you really need to be able to call yourself a “doctor”?

How do you go about finding a PhD position?

- There's two main types of way to do a PhD in the UK:
 1. Join a supervisor's research group and start PhD straight away.
 2. Join a PhD programme (often called "CDT" in UK).
Usually 4-year, do classes and ~3 month "rotation projects" in first year, then pick your supervisor and start the PhD proper in year 2.
- Application deadlines vary but usually November-March (for Sept start). However opportunities can pop up throughout the year.
- For route 1, best bet is to email supervisors you are interested in. Cast your net widely: **the supervisor is the number one determinant of how well your will PhD go.**
- For route 2, apply to the PhD program. You can contact supervisors associated with the program before applying for tips - but not necessary.
- Search online! FindAPhD.com and jobs.ac.uk are good resources.
- In computational neuroscience the comp-neuro mailing list is an excellent place to look for adverts: <http://www.tnb.ua.ac.be/mailman/listinfo/comp-neuro>.

What would look good on your PhD application?

- Good grades, typically would want a 2:1 or higher.
- A BSc with a 1st can be sufficient depending on the funding source.
MEng/MSc more common.
- Research experience (summer internship, final year project, MSc project, working as a technician in a research group).
- Demonstrable evidence of interest in the research area (got good grades on related optional units, chose final year project on it, taken online courses, etc).
- Usually need good 2 reference letters (e.g. final year project supervisor, personal tutor).
- First step is usually just email a potential supervisor though. OK to be informal but it's worth mentioning:
 - Why you want to do a PhD in general
 - Why you want to do a PhD in their research area, and mention if you have any specific ideas (totally ok if you don't! It's very hard to come up with a good PhD project as an undergrad).
 - Can mention you took relevant optional units, or attach your CV if you like.
 - Ask if they are taking students, how the funding would work, and if they have any project ideas.

**Have a think and do some
googling**