

## Physics Mentor Information Sheet

October 2020

### Why does Wales need the Physics Mentoring Project?

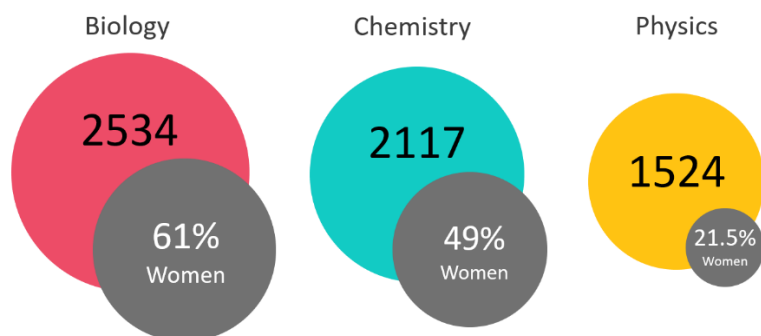


Figure 1: Science A level entries in 2018 (<https://www.jcq.org.uk/examination-results/a-levels/2018/main-results-tables/a-level-and-as-results-summer-2018>)

Each year, there is a large difference between the number of girls studying physics A levels, compared to those studying biology or chemistry. When looking at undergraduate physics courses in Welsh universities, women accounted for 20.1% of full-time, undergraduate, enrolments in 2017/18.

### What is the Physics Mentoring Project?

The Physics Mentoring Project is a collaboration between Aberystwyth University, Bangor University, Cardiff University, Swansea University and University of South Wales, which aims to:

- Increase the number of school students, particularly girls, intending to study physics post-16,
- Highlight the importance of transferrable skills and promote STEM careers to school students,
- Increase the confidence and resilience of school students studying Physics,
- Promote the teaching career to undergraduate and postgraduate university students,
- Increase confidence, develop employability skills, and provide experience for CVs of student mentors,
- Increase the confidence of physics teachers, particularly non-specialists, in Wales,
- Encourage culture change in participating schools to promote gender equality across the curriculum, and
- Engage with Welsh secondary schools, both locally and nationally.

Two cycles of mentoring take place each academic year in Nov – Dec and Feb - Mar. In a mentoring cycle, a trained Physics Mentor is matched to a local school, where they will conduct six weekly mentoring sessions with groups of four to six students from school years 9 – 11. These sessions will be a minimum of 45 minutes in length and follow set weekly themes.

This year will also see the launch of Video Mentoring, an initiative to bring mentoring to schools in Wales which are geographically hard to reach, using video conferencing software and pre-prepared videos and resources. Physics Mentors will have the opportunity to contribute to the creation of the videos and resources, as well as delivering the video mentoring sessions in schools via Teams.

In its pilot year (Jan 2019 – May 2020), the project was highly successful in meeting its aims, with mentored school students showing statistically significant increases in intentions to study Physics A levels. You can read more about the project's evaluation results so far on the [Physics Mentoring website](#).

### Who can become a Physics Mentor?

The opportunity to become a Physics Mentor is open to anyone who:

- is a current student at Aberystwyth University, Bangor University, Cardiff University, Swansea University or the University of South Wales,
- has a post-16 qualification in Physics, and
- is enthusiastic about Physics, inclusivity in STEM and inspiring the next generation of scientists!

All mentors are trained in the ethos of the project and in appropriate methods and approaches.

**Anyone who is interested and enthusiastic is encouraged to apply, regardless of experience.**

### Why should I become a Physics Mentor?

Physics Mentors who are engaged with the project and communicative with the National Coordinator can benefit hugely from being involved in the project, including benefits such as:

- Development of employability skills, such as communication, teamwork, and organisation,
- An increase in confidence,
- Valuable experience for their CV, including the opportunity to complete a [Level 4 unit in Increasing Engagement with Physics through Mentoring](#), accredited by Agored Cymru, for free,
- personal satisfaction of inspiring a generation of young scientists, and
- a cash bursary of up to £200 per mentoring group led.

The opportunity is particularly useful to students who are considering the teaching career, as you can read about in [this blog by Lille](#), a previous Physics Mentor.

### What will I do as a Physics Mentor?

If you are successful in your application, **you will be required to attend online training between 2<sup>nd</sup> and 13<sup>th</sup> November before becoming a mentor.** Mentors will have the opportunity to:

- Design and create videos and resources for video mentoring sessions, in collaboration with the project team and a professional videographer, and
- Deliver six face-to-face or online mentoring sessions in a Welsh secondary school.

Due to the covid-19 pandemic, mentoring will only be taking place in Feb – Mar 2021 this year and may be partially or entirely online. Once assigned to a school, mentors are expected to carry out an initial meeting with their school contact, deliver six sessions of minimum 45-minutes and attend the Awards and Recognition ceremony. Mentors should remain communicative with the National Coordinator and their teacher contact throughout the cycle and ensure that any problems or issues are communicated promptly.

### How do I apply?

If you are interested in applying to become a Physics Mentor, please fill out and submit [this online application form](#) **before 23:59 on Sunday 18<sup>th</sup> October 2020.**

### I have questions, who can I contact?

If you have any questions about being a mentor or would feel you would benefit from a general chat about the opportunity, contact our National Coordinator, Rosie: [physicsmentoring@cardiff.ac.uk](mailto:physicsmentoring@cardiff.ac.uk).

If you wish to keep up to date with the project, check out [physicsmentoring.co.uk](http://physicsmentoring.co.uk), or follow us on Twitter @PhysMentoring.