LOVE PHYSICS?

Pass on the passion. Teach.
Physics, which asks the key question “How does it all work?”, rests at the core of our technically advanced, interconnected world.

Physicists expand the boundaries of human knowledge, develop many of the innovations that transform our lives, and help to tackle the major issues of our age – from climate change to cancer treatment.

The abilities that studying physics develops and the skills it nurtures are in demand – but there is a shortage of physicists, and that demand is not being met.

While there has been an encouraging upturn in the number of students studying physics A-level in recent years, there is still much to be done.

The Greek philosopher Plutarch said that the mind is not a vessel to be filled, but a fire to be kindled. A passion for physics is ignited by inspiring physics teaching.

Specialist physics teachers are pivotal in developing young-people’s minds, releasing potential and giving them the skills they need to tackle the challenges, and seize the opportunities, which the UK will face in this technologically competitive age.

If you would like to inspire the next generation of physicists, consider teaching.

This guide will give you an overview of how to step on to the ladder of this hugely rewarding career, looking at training routes, funding and how to apply.

If you need further advice, please do get in touch – our contact details are on the back of this brochure.

We wish you the best of luck for the exciting future ahead.

Professor Roy Sambles
President, the Institute of Physics
Imagine a job where you are able to use your physics knowledge every day, in an inspiring and thought-provoking way. Or one where you play a crucial role in shaping the next generation of physicists.

Teaching takes you back to where it all started – where you first discovered your passion for physics. We guarantee that you will make new discoveries and develop a deeper understanding of physics that you never thought possible, simply by expressing and communicating the subject in new ways.

Once you are a qualified teacher, your career options remain varied. As a physics teacher you could move up to gain responsibility for the physics department, become a head of year, or focus on special needs or pastoral care.

There are also many opportunities beyond the classroom, from coaching a sports team to running an astronomy club.

Starting salaries for teachers match what you would receive in many other professions, and in some cases can even be higher. You can expect to start as a newly qualified teacher in England on a minimum of £22,467 a year.

Schools have been given more freedom over how they pay their teachers, linking teachers’ pay more closely to their performance, with scope for higher rewards and more rapid progression for the most successful teachers.

1 getintoteaching.education.gov.uk, October 2016
Step 1: Choose a suitable training route

Whether you are just starting out, or looking for a new career, there is a training course for you. You can study full- or part-time and can start as an undergraduate or a graduate. An Initial Teacher Education (ITE) accredited course will lead to qualified teacher status (QTS), which enables you to teach in state-funded schools.

Undergraduate route

If you don’t have a degree, you can:

- Start a degree course that also gives you QTS; this takes four years, full-time. In the end, you’ll receive a BEd or BSc with QTS\(^2\); or
- Start a non-teaching degree and then enrol on a postgraduate ITE course

Postgraduate route

University-led training

University-led ITE typically takes one year of full-time study and leads to a PGCE\(^3\) qualification. It is based at a higher-education institution (HEI) and includes around 24 weeks of placements in schools. The course mainly focuses on developing your teaching skills and understanding of the theory of education.

School Direct

Training will take place in a school that will deliver specific training tailored to your requirements and the school's needs. There is an expectation that you will be offered a job once you are qualified. School Direct ITE leads to QTS and often a PGCE qualification, depending on the school.

\(^2\) Bachelor of Education or Bachelor of Science with Qualified Teacher Status

\(^3\) Postgraduate Certificate in Education or Professional Graduate Certificate in Education
School Direct (salaried)

School Direct (salaried) is for graduates with three or more years of work experience\(^4\) who want to move into the classroom. You will be paid a salary as an unqualified teacher, trained “on the job” and will be employed by the school once qualified.

School-centred initial teacher training (SCITT)

The SCITT route provides practical, hands-on teacher training delivered by experienced, practising teachers based in their own school or at a school in their network.

Other routes

Subject Knowledge Enhancement courses\(^5\)

If your degree didn’t include sufficient physics to enrol on an ITE course straight away, you can take a Subject Knowledge Enhancement course to bring your physics up to scratch. You will need some experience of physics though, usually to A-level standard. These courses vary in length, depending on your needs, and are offered by many HEIs. Talk to your prospective provider for more information.

Researchers in Schools

This is a unique teacher-training programme tailored for PhD researchers. Maths and physics applicants are eligible for a salary uplift and off-timetable day, including opportunities to continue researching.

Find out more at researchersinschools.org.

Teach First

This charity recruits high-calibre individuals and matches them with schools in challenging circumstances where they teach for a minimum of two years. Trainees join a Leadership Development Programme.

Find out more at teachfirst.org.uk.

\(^4\) Schools can decide to accept applications from candidates with less work experience in hard-to-fill subjects such as physics
\(^5\) Only available in England
Step 2: Choose a training programme

Once you have chosen your preferred training route, you’ll need to select a training programme. Not all providers offer these programmes, so visit ucas.com and click on teacher training to find out which providers offer your preferred training programme.

Physics with Science

This is the most common training programme, which enables you to focus mainly on teaching physics but also combines some biology and chemistry content.

Physics with Mathematics

The biology and chemistry content that would be included in a Physics with Science programme is replaced with maths.

Step 3: Get some school experience

Whichever training route you opt for, your ITE provider will expect you to have some recent school experience. This not only shows them that you are familiar with the current school environment, but should also help you confirm that you are making the right career decision.

Our School Experience Programme can put you in touch with schools in your area that are willing to offer short-term observational experience. Register at iop.org/sep.

You can also arrange a school-experience placement through Get into Teaching. To find out more, visit getintoteaching.education.gov.uk/getting-school-experience.

Step 4: Explore your funding options

Fees for ITE programmes are approximately £9,000 per year. However, if you are a UK or EU resident and choose a postgraduate ITE programme leading to QTS, you may be eligible for a tax-free bursary of up to £30,000.

IOP Teacher Training Scholarships worth £30,000 are also available. These are exceptional awards available to outstanding applicants. For full details, visit iop.org/scholarships.
Step 5: Apply

Applications for university-led and school-led teacher training in England and Wales are submitted through UCAS Teacher Training. Applications to study Teacher Education in Scotland are made through the UCAS Undergraduate scheme.

There are two application windows – Apply 1 and Apply 2. In Apply 1, you can select up to three programme choices when you make your application. If you’re unsuccessful at this stage, you can move to Apply 2, where you make one choice at a time that will be considered by providers sequentially. Visit ucas.com/teacher-training for more information.

Even though physics teachers are in demand, it still pays to apply early. We urge applicants to take advantage of the UCAS combined-application system and, if applying for school-led training, to consider applying for the university-led route as well.

Further help

IOP support

Our free Student Teacher Affiliation programme will support you during your training and beyond. You will receive resources, advice on practical work, plus newsletters and events designed especially for new teachers.

To find out more, visit iop.org/education/ltp.

Premier Plus

We recommend that you register with Get into Teaching, which offers a “Premier Plus” service. This includes one-to-one advice on becoming a teacher and support with submitting your application. For full details, visit getintoteaching.education.gov.uk/premier-plus.
Contact us

Do you still have unanswered questions about physics teacher training? Get in touch.

Email teach@iop.org
Tel 020 7470 4959
Web iop.org/teach
Twitter @PhysicsNews
Facebook facebook.com/instituteofphysics

Useful links

The government’s teacher-training website
getintoteaching.education.gov.uk

The Universities and Colleges Admissions Service (UCAS) for teacher training
ucas.com/teacher-training

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This information is correct at the time of print and applies to England. For teaching advice for Northern Ireland, Wales and Scotland, refer to the General Teaching Council for Northern Ireland, the General Teaching Council for Wales and the General Teaching Council for Scotland.