



Teach Physics A Guide For Engineers

The future of physics and engineering is in your hands

iop.org/education

IOP Institute of Physics

Why Teach?

As an engineer, you will enjoy finding solutions to problems

Every day in the classroom is challenging and different. You will rely on your creative skills to motivate and engage your students – and you will need to think on your feet to answer thought-provoking questions from the enquiring minds around you...

Teaching is a diverse, dynamic and hands-on career

Your knowledge of applied physics will come into its own. You have the ability to relate the theory behind your lessons to real-life situations – further capturing the imagination of your students, and educating them about the world around us.

Benefit to yourself and others

By sharing your passion for physics and demonstrating that it is one of the foundations of engineering, you will inspire future generations of physicists and engineers.

In return, you will receive ongoing IOP support, a competitive salary, career progression opportunities and job satisfaction that's hard to beat.

“As a teacher you have an opportunity every day to feel that you have taught students something new and to see a spark of interest from them learning it.”

– Mark, IOP Scholar

Your Career

While tax-free funding packages and competitive salaries are an attraction, your biggest personal reward will come from the satisfaction of sharing in your students' “light bulb” moments.

Competitive salary

As a newly qualified teacher in England you could earn between £31,650 and £38,766 depending on where you teach. If you progress into a leadership role you have the potential to earn up to £147,586.

Find out more at getintoteaching.education.gov.uk

Career progression

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 a mechanics and engineering club.

From the moment you set foot in the classroom, you will be able to use your leadership and management skills, along with your communication and planning skills, which will be strengthened as your teaching progresses.

Challenge and satisfaction

It goes without saying that teaching can be challenging, but the benefits far outweigh the tough days. Few careers give you the opportunity to change young peoples' lives for the better in the way that a teacher can.

For times when you need a little extra support, the IOP is here to help. Visit our free teaching resources website IOPSpark for inspiration and teaching activities at spark.iop.org and attend our online events to boost your confidence in the classroom.

Training Programmes

Engineers teach physics

This training programme has been developed with support from the physics and engineering community. It has been adapted to help you make the transition from engineering or material sciences to teaching physics.

Find out more at getintoteaching.education.gov.uk/subjects/engineers-teach-physics

Physics with Science

This training programme 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 reduced, and includes additional maths content.

Visit gov.uk/find-postgraduate-teacher-training-courses and getintoteaching.education.gov.uk/subjects/engineers-teach-physics to search for training programmes.

Funding Options

As physics teachers are in high demand, the funding available to support you while you train is substantial.

You could be eligible for a government bursary of up to £29,000 tax-free. Find out more at getintoteaching.education.gov.uk

Outstanding prospective teachers could apply for a prestigious IOP Teacher Training Scholarship.

Each scholarship provides £31,000 tax-free funding and a package of exclusive benefits including IOP membership, access to CPD events where you can network with your peers, as well as opportunities to engage with IOP staff and subject specific mentors.

For more information and to apply, visit iop.org/scholarships

Tuition fees

Fees for ITE programmes are approximately £9,250. However, if you are entitled to a bursary or scholarship, you could use this towards the cost of your tuition fees, or you could apply for a tuition fee loan.

International trainees can expect to pay between between £9250 and £28000, and sometime more to train (depending on your immigration status, you may get a reduction in fees and some financial support).

For more information about fees and funding, visit getintoteaching.education.gov.uk/funding-your-training

Training Routes

To teach in maintained schools in England, you need to achieve qualified teacher status (QTS) through an Initial Teacher Education (ITE) course.

University-led training

University-led ITE typically takes one year of full-time study and leads to a Postgraduate Certificate in Education (PGCE). It is based at a Higher Education Institution (HEI) and includes around 24 weeks of placements in schools alongside seminars at your chosen HEI that focus on developing your teaching skills and understanding of the theory of education.

School-Centred Initial Teacher Training (SCITTS)

This course involves a research-led self-directed study with live training and one-to-one support.

Teach First

Teach First recruits high-calibre individuals and matches them with schools in challenging circumstances where they teach for a minimum of two years. You will also join a Leadership Development Programme. Find out more at teachfirst.org.uk

Subject Knowledge Enhancement (SKE)

If your engineering degree didn't include sufficient physics to enrol on an ITE course straight away, or you feel that your physics knowledge could do with a boost, you might be eligible for an SKE course. Your prospective training provider will assess your subject knowledge and advise whether or not you need to complete the course. SKE courses vary in length, depending on your needs, and are offered by many HEIs.

Talk to your prospective provider for more information or visit www.iop.org/education/thinking-becoming-physics-teacher/SKE-courses
SKE courses are only available in England.

Now Teach

Now Teach is a route for people who have a successful career in the public or private sector and are looking to move into teaching. Find out more at nowteach.org.uk

Further Help

Whether you're just starting out, or changing career, the IOP is here to support you from the moment your training begins.

We keep in touch during your first few years via email with links to teaching resources and articles relevant to your career stage; information about local physics teaching support via our expert networks; news about workshops and events to boost your teaching skills and other content we think will help you in the classroom and make you feel part of the physics teaching community.

For more information visit iop.org/education/how-to-become-physics-teacher

Department for Education Teacher Training Adviser

We recommend that you register with Get into Teaching, which offers a "Teacher Training Adviser" service.

This includes one-to-one advice on becoming a teacher and support with submitting your application.

"I believe that teaching physics not only helps with creating the engineers and scientists of the future but also gives all students a chance to appreciate the wonder and joy of understanding why things work as they do."

– Alastair, IOP Scholar

Find Out More At

iop.org/education/how-to-become-physics-teacher

The Institute of Physics (IOP) is the professional body and learned society for physics in the UK and Ireland. It seeks to raise public awareness and understanding of physics, inspire people to develop their knowledge, understanding and enjoyment of physics and support the development of a diverse and inclusive physics community. As a charity, it has a mission to ensure that physics delivers on its exceptional potential to benefit society.

Useful Websites

- Our advice on becoming a physics teacher:
iop.org/teach
- The government's teacher training website:
getintoteaching.education.gov.uk
- The training programme Engineers teach physics:
getintoteaching.education.gov.uk/life-as-a-teacher/explore-subjects/engineers-teach-physics

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As you are considering training to teach, you can complete this form to subscribe to our community emails, receive electronic copies of Classroom Physics and access a range of resources: **iop.org/education/sign-up-community-physics-teaching**