

Solar Research Scientist

Role Specific Education Training Needs

To become a Solar Research Scientist, you may first need a first or bachelor's degree in a science subject. Many universities in London offer Materials Science, Physics and Chemistry degrees. You can search for the degree you want in the discipline you want at the UCAS website <https://www.ucas.com/>.

Here you will find entry requirements for all the relevant universities. They often require A Levels at grade B or above in maths and science subjects. Some Universities offer degrees with a foundation year for those who don't meet direct entry requirements.

You will then progress to a taught or research master's degree. Many Research Scientists specialise in a chosen area of research and begin a Ph.D. Some master's degrees are specifically designed to give you a good grounding for further study if/when you begin a Ph.D. Some bachelor's and master's degrees can include a placement in industry to prepare you for work in the business world if you choose the industrial route.

On average a bachelor's degree will take 3 years, a master's 1-2 years and a PhD between 3 and 5 years.

Many universities in London offer Ph.D and master's degrees in the physical sciences. A relevant example is the busy hub at UCL (University College London), the "Solar Energy and Advanced Materials Research Group".

Alternative entry routes

Apprenticeships

A large group of businesses who employ materials scientists can work together and designed a degree apprenticeship in materials science. If you want to 'earn while you learn' and want to work in industry an apprenticeship like this might be for you. More information is available at: <https://www.instituteforapprenticeships.org/apprenticeship->

[standards/materials-science-technologist-degree-v1-0](https://www.instituteforapprenticeships.org/apprenticeship-standards/materials-science-technologist-degree-v1-0).

Information on a more generic non-degree apprenticeship in Research Science is available here:

<https://www.instituteforapprenticeships.org/apprenticeship-standards/research-scientist-v1-0>.

For this apprenticeship you can choose to study in blocks or on day release from your employer.

Or if you would prefer to be laboratory-based this degree apprenticeship could be for you:

<https://www.instituteforapprenticeships.org/apprenticeship-standards/laboratory-scientist-degree-v1-0>.

Career Prospects and Progression

After completing relevant qualifications, you could choose to specialise further and complete a PhD. While working on your PhD you will might be sponsored by an organisation that is interested in your specific area of research. These sponsorships often offer a small stipend for living expenses while you study. Such sponsorship opportunities are competitive. After you complete your studies you could decide between working in academia, blending continued research, publishing papers and teaching, or working in the industry for a company that employees research scientists specialising in solar power.

Progression routes throughout your working life could include promotion to oversee entire research programmes and other management positions. You might choose to become a Chartered Scientist for further professional recognition: <https://sciencecouncil.org/scientists-science-technicians/which-professional-award-is-right-for-me/csci/>.

Skills Needed

According to Prospects UK, Solar Research Scientists will need the following skills:

- Technical and scientific skills.
- Research and analytical skills.
- A logical approach to problem solving.
- Communication and presentation skills, in order to write reports and papers for publication and to present your research at conferences.
- The capacity to deal with complex issues both systematically and creatively.
- The ability to collaborate with others and work well in a team
- Project management skills.
- The ability to use your initiative and to work alone.
- Numerical skills.
- IT skills and the ability to use computer-controlled equipment
- Self-motivation and patience.

Number Employed (UK)

In 2018 there were just under 200,000 people in the UK working as, Chemical, Physical, or Natural science professionals, with a further 51,000 working as Research and Development Managers. These figures do not include academic staff, teachers or professors. (Relevant Occupations from SOC 211, 215 ONS 2018).

Typical Salary Range

Research Scientist £15,285 – £40,000+

Head of Research £40,000 – £80,000+

ENDS

Please note that the information contained on this page is accurate to the best of Solar Energy UK's knowledge. Solar Energy UK welcomes additional information and will aim to update any errors or omissions.