





## **NORTHERN HUB**

# CAREER OPPORTUNITIES WITHOUT BOUNDARIES



At the National College for Nuclear we aim to revolutionise the way people are educated through innovation and collaboration with industry, creating an eco-system of learning.









## OUR OFFER

By working with us, you're assured of:

- Training programmes that address your current and projected workforce needs.
- A curriculum that is constantly evolving to meet sector requirements.
- Programmes developed for, and with, employers to ensure relevance, accuracy and rigour.
- University and industry partners aligned with the UK's nuclear strategy.

## TOGETHER, WE'LL LEAD THE WORLD IN NUCLEAR TRAINING

The nuclear industry is expected to need 30,000 new employees over the next decade. By working with you, we'll prepare the next generation.

A cutting-edge industry requires cutting-edge training and education, to ensure the workforce of tomorrow has the skills to deliver success.

As one of four education providers named by Business Minister Matthew Hancock to partner the National College for Nuclear, we're working with Sellafield Ltd and the University of Cumbria to develop a training package that offers variety, rigour and hands-on vocational experience.

A similar operation will be established in the south, where EDF Energy is working in tandem with Bridgwater & Taunton College and the University of Bristol.

At the heart of the National College for Nuclear is a commitment to collaborate with industry, thereby ensuring that students are equipped for the job vacancies you have. Thanks to the involvement of university partners in both regions, we can deliver a full suite of qualifications, from post-16 access courses all the way through to degrees.

Our commitment to employers is that the NCfN will deliver training to address your skills needs. So you'll have well-qualified and proficient technical workforce who are ready to get working as soon as they take up post.

The National College for Nuclear puts you at the centre of a new concept in skills training. Are you ready to work with us for the future of your industry?

#### A FRESH APPROACH TO LEARNING

Technology has advanced at a rapid rate in recent years, but the way in which teaching is delivered has barely altered for more than two millennia. While classroom-based learning can produce highly-qualified technicians with a wealth of academic knowledge, these students often need additional hands-on experience to thrive in the workplace. This is because no amount of intellectual endeavour prepares you for the realities of a particular industry, it's only when you get into employment that you learn about the culture, behaviours and expectations of a professional context. This is especially true of the nuclear industry, where practical experience helps employees develop the high standards of health and safety that are of such critical importance.

The National College for Nuclear recognises that people learn in different ways. Our focus is on learning by doing, by getting hands on in industry and observing the work of experienced colleagues. Clearly, it isn't possible to take people to a nuclear site and train them in a range of emergency scenarios, so we use innovative technology and virtual reality simulators that replicate the nuclear environment. As a result, our students gain real-world experience, working on a series of live projects that are relevant to their chosen career path.

Such immersion in practical assignments is the key to success in a training context. Augmented by technical instruction and academic assessment, the result is technical professionals who are work ready because they are familiar with industry processes, protocols and norms.

Even better, because our programmes can be delivered in a flexible modular format with extensive online support, some students may already be in the workplace, combining practical professional experience with their training and education, and learning or upskilling on the job.

## REAPING THE REWARDS

This is our chance to revolutionise training, through innovation and collaboration with industry.

The National College for Nuclear has been charged with developing a new nuclear curriculum. This will consist of qualifications and training courses that are attractive to learners and meet employers' needs and expectations.

Quality comes at the heart of our success. That is why the NCfN partnership involves some of the UK's leading universities and vocational education providers.

You can also be confident in our experience of working with industry. As we develop the new curriculum, we'll be working closely with employers from across the nuclear industry, bringing your expertise together and ensuring it is embedded at every stage of our training and education.

Moreover, our courses will be aligned with the UK's Nuclear Industrial Strategy and the Nuclear Energy Skills Alliance (NESA), to ensure they are built around the industry's precise needs. To help with this, we'll be inviting you to participate in our Curriculum and Qualifications Advisory Group, so that you have a direct role in shaping our programmes. This is a crucial moment in nuclear training. With your support, we'll develop innovative solutions that are configured precisely to your needs, using the latest technology to provide real-world and simulated experience of the workplace and ensure that students are job-ready upon completion of their training. We'll have a particular focus on filling higher levels skills gaps, so that the nuclear workforce is ready for the future, and the international benchmarking of our provision will safeguard the UK's status in the global nuclear market.

The birth of the National College for Nuclear represents an exciting development for the UK's nuclear industry. Together, we can power the future, ensuring that the workforce is equipped for tomorrow's world.

## THE NCfN NORTHERN HUB

Lakes College will be the principal delivery arm of the northern hub, incorporating the existing Lakes College campus at Lillyhall, Britain's Energy Coast Construction Skills Centre, Britain's Energy Coast Campus, the Energus engineering centre, and the Energy Coast UTC. The northern hub will be supported from five University of Cumbria sites across the county, as well as a collaboration with Cumbria colleges, serving the defence nuclear sector.

A £7.5m investment will add a virtual reality centre, including virtual laboratories and a virtual engineering suite, radiation and chemistry laboratories, computer-equipped training rooms and a flexible learning/event space.

## THE NCfN SOUTHERN HUB

Bridgwater & Taunton College is the principal delivery arm of the southern hub, supported by its Energy Skills and Advanced Engineering Centres, the Construction Skills and Innovation Centre at Cannington, and a new University Centre in Taunton.

The southern hub works closely with the South West Nuclear Hub for research and innovation at Bristol University, and Nuclear South West in Bristol, which has been set up to help businesses maximise the opportunities arising from the nuclear new build programme.

A £15m capital investment has provided a state-of-the-art nuclear training facility, including a virtual reality environment, a reactor simulator and computer-equipped training rooms. The new facility also provides recreation and collaboration space, sports facilities and student accommodation.

## OUR OFFER

## ECITB LEVEL 3 NUCLEAR ENGINEERING & SCIENCE

- Integrated Diploma (Full time, 30 weeks)
- Diploma (Full time, 12 weeks)
- Certificate (Part time, 12 weeks)

### FOUNDATION DEGREES

- Decommissioning and Waste Management
- Electrical Power Systems and Infrastructure

#### HONOURS DEGREES

- Mechanical Engineering
- Electrical Engineering
- Decommissioning and Waste Management

# 21%

Of electricity in the UK comes from Nuclear reactors.<sup>1</sup>

# £68,629

Was the average earning across the Nuclear sector in 2015.<sup>2</sup>



## NATIONAL COLLEGE FOR NUCLEAR

The Northern Hub part of the National College for Nuclear, which is located at Lakes College in West Cumbria, has degree students starting from January 2018. The Northern hub can hold up to three hundred students and subjects that will be taught there include: Nuclear Decommissioning & Waste Management, Mechanical Engineering, Electrical Engineering & Power Systems. The new facility provides a state of the art project centre which includes resources such as robotics, advanced control systems, thermo and fluid dynamics rigs and electrical power generation/transmission.

The College will combine theoretical work with hands on experience, including the use of: virtual reality rooms with world class resources. Les Agnew (Operations Director) spoke very highly about the virtual reality suites, highlighting that "employers from various companies will be able to import their 3D designs in to the system enabling them to develop and immerse themselves within their own designs". The style of learning within the College will be "experience based" and students will follow nuclear standards and behaviour expectations. There is also an exciting opportunity for firms in the Nuclear supply chain across the country to send their workers to the college for block release delivery supporting extensive practical sessions.

Les recognised "we want to support schools in their teaching of subjects like maths, science and technology. We're exporting our knowledge and skills to the younger generation to give them an opportunity to experience them. The aim is to gain interest from individuals both within West Cumbria and further afield, therefore some of the equipment is portable"

Les has a heavy involvement with the National College for Nuclear as Sellafield Limited are one of the three partners in the college. Les stated that "each of the partners has made investments in terms of time, experience and resources to the National College for Nuclear."

## QUALIFIED FOR THE JOB

There's no point equipping students with academic qualifications if they're not ready for the world of work, and it's never truer than at the National College for Nuclear.

All of our courses are designed with the needs of employers very much in mind. So whether it's an entry-level programme for a school leaver, ECITB Level 3 Nuclear Engineering & Science, BSC (Hons) or BEng (Hons) you can be assured that our students are well-prepared for the workplace. Naturally, because of our belief in the power of on-the-job learning, we also offer a full suite of apprenticeships, up to degree level.

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New commercial reactors under construction<sup>3</sup>

63,000

Employed in the Civil Nuclear Industry in the UK.<sup>4</sup>

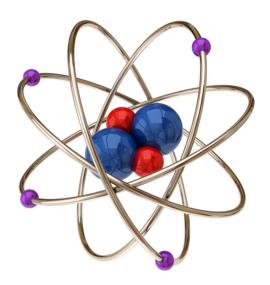
436

Commercial reactors currently operating in 30 countries.⁵

<sup>3</sup> World Nuclear
<sup>4</sup> Nuclear Industry Association | www.niauk.org

<sup>5</sup> Horizon Nuclear Power











#### NORTHERN HUB

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#### SOUTHERN HUB

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