



WESTON  
COLLEGE

WEST OF ENGLAND

I N S T I T U T E O F  
T E C H N O L O G Y

SKILLS  
FOR LIFE

SKILLS BOOTCAMPS

# HYDROGEN AWARENESS AND UTILISATION

## INTRODUCTION

Is your organisation gearing up for the Hydrogen Agenda? If you are exploring the use of Hydrogen in your organisation and are looking to upskill staff to lead/champion your Hydrogen/Sustainability strategy this Skills Bootcamp could be relevant for your organisation.

The biggest single threat to nearly every economy and community is the issue of obtaining clean and dependable energy. With this in mind, Weston College has worked with numerous organisations to develop a programme that will inform and challenge learners to understand the implications of hydrogen utilisation from production to end user, with a particular focus on environmental impact. We have worked with world leaders and industry specialists to provide learners with an informative set of sessions that will stimulate debate and further study.

This Hydrogen Skills Bootcamp is designed and developed for those working in the aerospace, advanced manufacturing, construction, logistics and distribution sectors.

## WHAT DAY IS THIS SKILLS BOOTCAMP?

This Skills Bootcamp takes place every Friday for 10 weeks, 9am - 3pm.

## WHERE IS THE SKILLS BOOTCAMP BEING DELIVERED?

Each session will take place at our Advanced Engineering and Green Skills Centre. The address for this campus, is: South West Skills Campus, Locking Road, Weston-super-Mare, BS22 8ND.

## WHAT IS THE LEARNING OUTCOME OF THIS SKILLS BOOTCAMP?

The learners will develop a sound knowledge of the opportunities afforded industry regarding the use of hydrogen as an alternative power source, helping to drive the green and net zero agenda forwards.

## HOW WILL MY EMPLOYEE BE ASSESSED?

Attendee's will be assessed through a synoptic project and knowledge test, this will be completed during the bootcamp, there is no work required outside of sessions.

## EMPLOYER COMMITMENT

Employer commitment for learner to complete all training elements.

Evidence from employer to confirm that the training provided via the Skills Bootcamp has resulted in either a new job role or an enhanced role for the employee that now utilises their new Skills Bootcamp.

## COST FOR EMPLOYERS

A minimum of 70% of the course fee is funded by Department for Education as part of the Skills for Life Programme.

**FOR MORE INFORMATION,  
PLEASE CONTACT**

Telephone: 01934 411 411

Email: [employers@weston.ac.uk](mailto:employers@weston.ac.uk)

# CURRICULUM:

## Hydrogen Bootcamp

- Fridays from 9am until 3pm
- 10 weeks of delivery – will utilise our brand new immersive ‘virtual/hybrid’ classroom to enable guest speakers from industry

WEEK	09.00-10.00 10.30-12.00	13.00-15.00
1	<b>INTRODUCTION TO HYDROGEN</b> <ul style="list-style-type: none"> <li>• How does Hydrogen fit into the ‘Power’ needs of the UK and Europe</li> </ul>	<b>HEALTH AND SAFETY HYDROGEN</b> <ul style="list-style-type: none"> <li>• Current legislation</li> <li>• Requirements for industry</li> <li>• Safe storage and transportation</li> </ul>
2	<b>HYDROGEN TYPES AND MANUFACTURING PROCESSES</b> <ul style="list-style-type: none"> <li>• Blue/Green/Grey/Turquoise/Pink/Brown</li> </ul>	<b>HYDROGEN TYPES AND MANUFACTURING PROCESSES</b> <ul style="list-style-type: none"> <li>• Electrolysers</li> <li>• Emerging projects and technologies</li> </ul>
3	<b>STORAGE, LOGISTICS AND DISTRIBUTION</b> <ul style="list-style-type: none"> <li>• Current legislation</li> <li>• Requirements for industry</li> <li>• Safe storage and transportation</li> </ul>	<b>LARGE SCALE MANUFACTURING AND DISTRIBUTION</b> <ul style="list-style-type: none"> <li>• Case Studies</li> <li>• Requirements for the future</li> </ul>
4	<b>HYDROGEN TECHNOLOGIES</b> <ul style="list-style-type: none"> <li>• Fuel cells</li> <li>• Ammonia Cracking</li> <li>• Solid State Batteries</li> </ul>	<b>LCSA, RECYCLING AND ECO-DESIGN</b> <ul style="list-style-type: none"> <li>• Cradle to grave</li> <li>• Design considerations</li> </ul>
5	<b>HYDROGEN - AEROSPACE SECTOR</b> <ul style="list-style-type: none"> <li>• Cranfield Aerospace</li> <li>• Teeside Airport</li> </ul>	<b>AEROSPACE SECTOR</b> <ul style="list-style-type: none"> <li>• Emerging projects and technologies</li> </ul>
6	<b>HYDROGEN - VEHICLE/PLANT AND RAIL SECTORS</b> <ul style="list-style-type: none"> <li>• JCB</li> <li>• First Bus Aberdeen</li> <li>• Scotrail</li> </ul>	<b>HYDROGEN - VEHICLE/PLANT AND RAIL SECTORS</b> <ul style="list-style-type: none"> <li>• Emerging projects and technologies</li> </ul>
7	<b>POWERTRAIN LAYOUT AND DEVELOPMENT</b> <ul style="list-style-type: none"> <li>• Case studies</li> <li>• Emerging projects and technologies</li> </ul>	<b>SOCIAL AND FINANCIAL IMPACT</b> <ul style="list-style-type: none"> <li>• Will hydrogen be part of wider energy security and net zero solution for the future or will it result in ‘green poverty’?</li> </ul>
8	<b>SYNOPTIC PROJECT</b> <ul style="list-style-type: none"> <li>• Supported brief linked to attendees’ organisational needs and requirements</li> </ul>	<b>SYNOPTIC PROJECT</b> <ul style="list-style-type: none"> <li>• Supported brief linked to attendees’ organisational needs and requirements</li> </ul>
9	<b>SYNOPTIC PROJECT</b> <ul style="list-style-type: none"> <li>• Supported brief linked to attendees’ organisational needs and requirements</li> </ul>	<b>SYNOPTIC PROJECT</b> <ul style="list-style-type: none"> <li>• Supported brief linked to attendees’ organisational needs and requirements</li> </ul>
10	<b>PRESENTATIONS</b> <ul style="list-style-type: none"> <li>• Project presentations with representation from employer sponsors</li> </ul>	<b>REVIEW AND CONCLUSION</b>