

# UWE Skills Pathway Programme: Modules

**Time commitments:** Induction and Needs Assessment module (approximately 3 hours plus follow-up meetings.) Each selected Pathway module will consist of 6 hours worth of flexible e-learning to be completed **prior** to a live session date, which you must be able to attend. Each day-long session will be held either at our UWE Bristol Frenchay campus, or online, between 9am - 5pm. (Please check details below.)

Name	Description	Pathway	Live Session Date	Live Session Online / In person
Introduction to Industry 4.0 and Digital Transformation	Learners will gain a solid understanding of Industry 4.0 and Digital Transformation and be able to identify and evaluate core technologies, apply data-driven decision-making technologies, assess risk and opportunities, such as cyber security threats and operational efficiency, and develop a digital transformation roadmap.	Digital and Intelligent Technologies	TBC	In Person
Digital Design and Manufacturing	This module will cover digital manufacturing and design approaches, including simulation software, how to optimise digital supply chains, the implementation of data-driven manufacturing techniques, how to digitally track a project's lifecycle and practical modelling and simulation tools to optimise manufacturing processes.	Digital and Intelligent Technologies	TBC	In Person
Digital Twins and Smart Factories	In this module, individuals will be able to understand the real-time monitoring and decision-making capabilities of digital twins, learn how to upgrade existing operations to smart factory standards, bridge the gap between digital twins and physical systems and learn how to utilise digital twins for predictive maintenance activities.	Digital and Intelligent Technologies	TBC	In Person

Modules will run between September - December 2024.

<b>Industrial Data Analytics</b>	<i>Through this module, learners will gain an understanding of the fundamentals of industrial data analytics, including how to understand past and forecast future activities. Learners will be able to enhance efficiency and decision-making, master collection and pre-processing, utilise time-series analysis and implement analytics and dashboards for real-time monitoring.</i>	Digital and Intelligent Technologies	TBC	In Person
<b>Applied Artificial Intelligence in Engineering</b>	<i>Gain insight into AIs applications in civil, mechanical and electrical engineering in this module. Understand basic algorithms to solve engineering challenges and learn how AI can optimise engineering systems and processes in your workplace.</i>	Digital and Intelligent Technologies	TBC	In Person
<b>An Introduction to Retrofitting and PAS 2035</b>	<i>This module introduces the fundamentals of retrofit, exploring how retrofitting responds to key issues such as climate change, reducing energy use and emissions, fuel poverty and the cost of living crisis. Throughout this module, you will use case studies and practical examples to understand how retrofitting faces up to these major industry challenges through the adoption of PAS 2035.</i>	Sustainability	16/09/24	In Person
<b>Thermal Performance and the Risks of Retrofitting</b>	<i>Using practical examples and activities, gain insight into the risks associated with a 'bad' retrofit and understand how the industry has created new supervisory roles to improve and monitor the quality of retrofit within PAS 2035. Within this module, you will also explore the use of quality control measures, computer simulation models and laser surveying techniques.</i>	Sustainability	14/10/24	In Person
<b>Assessment for and Development of a Retrofit Plan</b>	<i>In this module, you will consider methods to establish how buildings use energy and explore the assessment of dwellings through the use of PAS 2035. Engage in practical activities to gather energy use data through the use of damp meters, laser distance measures and thermal imaging cameras before evaluating your results in relation to a typical retrofit scheme.</i>	Sustainability	13/11/24	In Person
<b>Sustainability Marketing and Communication</b>	<i>Learn how to integrate sustainable marketing strategies, explore how customers respond to sustainable marketing efforts and develop your own sustainable marketing plan in order to foster positive change.</i>	Sustainability	20/11/24	Online

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<b>Retrofit - Improvement of the Building Fabric</b>	<p>Investigate different short- and long-term methods for improving heat loss and compare different insulation approaches to walls, rooves, floors and windows.</p> <p>Assess the need for ventilation, understand the risks to health caused by mould growth and undertake practical assessments, measuring risks associated with various insulation options in accordance with PAS 2035.</p>	Sustainability	27/11/24	In Person
<b>Retrofit - Building Services and Renewable Technology</b>	<p>Gain insight into building services within the retrofitting process and learn how to compare the various space-heating systems: how they are controlled, how they can be improved and their contribution to a retrofit. Through practical application and exercises, discover how the use of alternative sources, low carbon fuels and renewable energy systems support the PAS 2035 agenda. Investigate ways we can reduce the use of electricity and water and explore software simulation tools and methods that can help us carry out the necessary assessment.</p>	Sustainability	04/12/24	In Person
<b>Generative AI Fundamentals</b>	<p>Gain an understanding of generative AI and its significance in the tech industry as well as its applications in art, design and other sectors. Consider the ethical implications of generative AI and explore different AI models and applications through hands-on coding sessions and group project work.</p>	Leadership	25/09/24	Online
<b>Leading Sustainable Change</b>	<p>This module aims to provide leaders and decision-makers with the skills and knowledge necessary to drive positive and lasting change while considering sustainability, including how to lead in addressing social and environmental issues within your organisation.</p>	Leadership	03/10/24	Online
<b>Leading in a Digital World</b>	<p>This module will help learners to build confidence around digital technologies within their organisation.</p> <p>Learners will explore how to cultivate an inclusive digital culture, embrace technological trends and review ways to build new digital capabilities within their team to enhance efficiency and productivity and effectively utilise existing digital resources.</p>	Leadership	24/10/24	Online

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<p><b>Introduction to Cybersecurity and Risk Management</b></p>	<p>Take a deep-dive into different cybersecurity threats and the measures used to mitigate them, including firewalls, anti-virus software and encryption. Understand how to identify and analyse risk in order to develop your own cybersecurity plan, and apply your newly acquired knowledge and skills in a simulated cybersecurity incident, working in teams to manage and address the issue.</p>	<p>Leadership</p>	<p>06/11/24</p>	<p>Online</p>
<p><b>Managing Hybrid and Remote Teams</b></p>	<p>This module aims to support learners in considering the impact flexible working offers your team and how you can create a culture of collaboration and good working practices that promote wellbeing while meeting business need.</p>	<p>Leadership</p>	<p>12/11/24</p>	<p>Online</p>
<p><b>Leading with Inclusivity</b></p>	<p>Looking at how to create an organisational environment where everyone feels seen, valued, and heard, and how to manage conflict and bring together individuals from diverse backgrounds and talents in order to drive success.</p>	<p>Leadership</p>	<p>14/11/24</p>	<p>Online</p>
<p><b>Collaborating with Colleagues and Clients Professionally</b></p>	<p>This module looks at how to put your customers and stakeholders at the centre of your digital working practices, including emphasising empathy and understanding in a digital context and strategies for clear, concise and professional digital communication.</p>	<p>Collaborative Working</p>	<p>19/09/24</p>	<p>Online</p>
<p><b>Getting the Most from Your Digital Resources</b></p>	<p>This module aims to equip individuals with the skills and knowledge needed to harness the full potential of their digital resources, including Microsoft 365 and doc-u-sign, for personal and professional success.</p>	<p>Collaborative Working</p>	<p>21/11/24</p>	<p>Online</p>
<p><b>Learning to Work Remotely / Hybrid Effectively</b></p>	<p>On completion of this module, learners will be equipped with the skills and knowledge needed to effectively navigate the challenges and opportunities presented by remote and hybrid working, exploring the benefits and challenges of these working arrangements and discussing issues such as setting boundaries, employee wellbeing, cybersecurity and data privacy.</p>	<p>Collaborative Working</p>	<p>05/12/24</p>	<p>Online</p>

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