

BUILD

A FUTURE-PROOF WORK FORCE, TODAY

**Fully
Funded***

Short & Flexible University Course:

SMART MANUFACTURING WITH INDUSTRY 4.0

- » Introduction to Industry 4.0
- » Advanced Industry 4.0 or Design for Industry 4.0

“ Industry Wales is fully supportive of these EU programmes. At a time of significant change and challenge for the Welsh Manufacturing sector, this operation is both timely and critical. With an established track record in providing industry focused solutions, UWTSO are ideally placed to deliver such an operation. ”

James Davies, CEO – Industry Wales.



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David



Future-proof your team with MADE Cymru

In the constantly-evolving world of manufacturing, Smart Manufacturing with Industry 4.0 is an opportunity to explore technologies that have the potential to increase efficiency, maximise productivity and future-proof businesses.

Introduction to Industry 4.0

Topics include:

- » Lean thinking manufacturing strategies benefitting from Industry 4.0 technologies.
- » Value Stream Mapping to identify potential economic impact technology.
- » Potential benefits of Industrial Internet of Things.
- » Smart manufacturing including Factory of the Future principles.
- » The role of data, including impacts of cloud-based computing and cyber-security.

Advanced Industry 4.0

Topics include:

- » Applications of advanced technology including virtual, augmented and mixed reality.
- » Identifying the benefits of 'digital twin' simulation.
- » Elimination of inefficiencies using the 'digital thread'.
- » Systems leadership, governance and ethics of Industry 4.0 technologies.

Design for Industry 4.0

Topics include:

- » Generative Design and Optimisation techniques for Industry 4.0 manufacturing strategies.
- » Design methodologies for Automated Assembly, Automated Dis-assembly etc.
- » Quality of Design methodologies underpinning technology application.
- » Value Analysis / Value Engineering to achieve economic benefit from Industry 4.0 technologies.

On completion of this University of Wales Trinity Saint David (UWTSD) accredited qualification, students will be able to identify appropriate and impactful Industry 4.0 technologies for their organisations. Have key skills to identify Industry 4.0 technologies that can deliver authentic economic impact, either for Process or Product Development disciplines.

A flexible way to learn while you work

We run our online sessions on Friday afternoons each week, and our virtual learning environment means you can attend lectures from anywhere, with real-time communication and collaboration taking place online between course participants.

The cohorts are made up of students from different roles, backgrounds and manufacturing sectors, this brings a richness to the cohort and the learning.

Students finish the 32 week course with a university accredited qualification, but won't need to wait until the programme is complete to apply the skills learned straight away.

MADE Cymru is a suite of programmes designed to navigate organisations through Industry 4.0 via collaborative research & development and upskilling. Part/Fully Funded by the European Social Fund/European Regional Development Fund through the Welsh Government.

Full list of UWTSD certified courses offered by MADE Cymru:

- » **Continuous Improvement with Industry 4.0**
(Certificate 40 credits Level 5)
- » **Smart Manufacturing with Industry 4.0**
(Certificate 40 credits Level 7)
- » **Industry 4.0 Advanced Manufacturing** (MSc Level 7)
(option to study individual modules if desired)
- » **Business Improvement with Innovation Management**
(Certificate 40 credits Level 7)
- » **International Innovation Management** (MSc Level 7)



In addition to learning opportunities, we also invite manufacturers to take part in our ADE collaborative R&D programme where you can benefit from the support and expertise of our team, who use their knowledge and experience to offer a wide range of approaches and technologies that could help you bring your prototype or concept to life.

The MADE Cymru team has a solid track record of working with companies and stakeholders in the sector and can help facilitate collaborations or offer advice and referrals. We can support you in navigating the challenges of modern manufacturing and assist you in finding the solution you need.

Get in contact, call **01792 481199**, email **MADE@uwtsd.ac.uk** or visit **www.madecymru.co.uk**