Digital transformation in the built environment at the University of Salford

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University of Salford
MANCHESTER

I'm the MSc Building Information Modelling (BIM) & Digital Built Environments Programme Director in the School of Science, Engineering & Environment at the University of Salford. I'm also Chair of the UK BIM Academic Forum and have over 20 years' research experience in the area of concurrent engineering, digital built environments, and collaborative construction and behaviours.

Our School has led the research agenda in the built environment in the UK for more than 20 years, is continuously rated top in the national research assessment rankings and is currently ranked in the QS world top 100 centres for architecture and built environment study. Our research focuses on solutions for real world problems in the built environment and our teaching is at forefront of innovative education delivery.

MSc BIM & Digital Built Environments

The MSc BIM & Digital Built Environments programme builds on the long-standing focus on construction, BIM, digital construction and digital transformation as core teaching research and enterprise activities. The construction industry is facing unprecedented change, driven by digital transformation. The programme explores these changes and is designed to educate and support professionals in responding to current and future challenges in client expectations and wider societal needs.

The programme attracts national and international students from varying disciplines, including professionals currently employed in industry and recent graduates looking to further develop their skills and enhance their employability.

Teaching standards and standardization

In the context of the digital transformation agenda, the MSc teaches standardization through a balance of theory and practice. This is facilitated through guest lectures from industry and government experts (including members of our alumni).

An annual three-day Summer School provides an extra-curricular activity to further enhance the development of knowledge around digital built environments, BIM, lean manufacturing, and integrated project delivery approaches. Students enjoy guest talks from government, industry and academics, student presentations and workshops, together with site visits. Industry conferences and workshops serve to further enhance the development of advanced knowledge and the balance between the theory and practice.

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Students are taught a number of the key standards in relation to the wider digital transformation agenda. These include the Level 2 BIM suite and associated standards, BS EN ISO 19650 series (information management using BIM), ISO 44001 (collaborative business relationship management), ISO 55000 (asset management), and PAS 180-185 (smart cities). These are taught through three core modules: BIM Theory & Practice, Integrated BIM Projects, and Lean Integrated Design & Production, and two elective modules: Project & Production Management in the Built Environment and Sustainable Design Theory & Practice.

Standards knowledge is essential

Having knowledge of standards and standardization, with the ability to apply the relevant digital transformational-related standards, is an essential competence for professional roles in the financial, environmental and social performance of built environment assets. This knowledge and awareness also facilitates the wider development of digital capacity in the sector.

🖥 Learn more at: www.salford.ac.uk/bim-digital-environments

Professor Jason Underwood
Professor of Digital Built Environments & Construction ICT, Programme Director MSc BIM & Digital Built Environments

About BSI Education

Universities make a significant contribution to standardization by teaching about standards, contributing academic research, and being standards-makers. BSI Education builds relationships and creates programmes with universities to help raise awareness of the benefits of standards to society and the economy and to encourage and increase participation in standards-making.

🖥 For more information visit bsigroup.com/education or contact education@bsigroup.com

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