MAP01 The Construction Environment and Digital Innovation

MAP MODULE COURSE SPECIFICATION

Modular Acceleration Programme (MAP)

About the MAP
Preston College has been approved to offer specific modules through the modular acceleration programme (MAP). The modular acceleration programme is a 2-year pilot to fund tuition fees for learners who study specific modules of higher technical qualifications (HTQ), such as a Higher National Certificate (HNC) at level 4. Learners do not need to pay back any tuition fees. However, the funding accessed for MAP will reduce the amount remaining in a future Lifelong Learning Entitlement account. This is called the 'residual entitlement'.

CONTENTS

INTRODUCTION

The MAP01 module is designed to provide a strong foundation for additional construction industry training and education, while equipping learners with employable skills that are immediately applicable in the sector. Students can leverage both their contextual understanding and their practical abilities in digital construction to take their next steps on an exciting and rewarding built environment career path. The flexibility of completing just one module in 12 weeks allows students to upskill and gain valuable credits without needing to commit to a full qualification straightaway.

Programme Code	PC45461
Programme Title	MAP01 The Construction Environment and Digital Innovation
Teaching Institution	Preston College
Professional, Statutory and Regulatory Body (PSRB) Accreditation	N/A
Language of Study	English
Version	Version 1
Approval Status	Approved for delivery
Approval Date	September 2024

COURSE OVERVIEW

The construction industry plays a vital role in shaping our built environment, but it also has significant impacts on the economy, society and the natural environment. This course explores these multi-faceted issues, covering topics such as the history of the industry, professional roles and ethics, sustainability strategies, diversity and inclusion, and routes to employment and career progression.

Alongside this industry context, the course provides an in-depth look at the use of Building Information Modelling (BIM) - the process of creating and managing digital representations of physical buildings. Students will learn how to use industry-standard BIM software applications to model construction elements, generate 2D and 3D views, and assemble key project information.

By addressing both the broader industry picture and the specific digital skills that are in high demand, this course offers a well-rounded introduction to the contemporary construction sector in a compact programme. Students will emerge with a keen understanding of the challenges and opportunities facing the industry, and the capabilities to make an impact through the application of the latest digital innovations.

WHO IS THE COURSE FOR?

This course is designed for individuals who meet the following MAP eligibility criteria:

- Aged 19-60
- Living in England or living outside England but working in England
- Looking to retrain for a new career in the construction industry or upskill for their current built environment job

This may include:

- Those currently working in construction who want to enhance their digital skills and understanding of the industry
- Individuals from other sectors considering a career change into construction
- Adults seeking to retrain for employment opportunities in the built environment
- Self-employed tradespeople looking to expand their services to include BIM and digital construction
- Professionals in adjacent fields, such as architecture or engineering, who interface with the construction sector
- Those who started but did not complete a construction qualification and want to resume their education
- Adults returning to the workforce who are interested in construction careers
- Individuals who want to take the first step towards a Higher Technical Qualification in construction

CAREER OPTIONS AND PROGRESSION OPPORTUNITIES

Upon successful completion of the course, students may consider the following progression routes:

- Combining the MAP01 module with other construction MAP modules to build credits towards a full Higher Technical Qualification
- Further study through a HNC/HND in Construction, Civil Engineering or Architectural Technology
- A degree apprenticeship in Construction Management, Quantity Surveying or BIM
- Applying for entry-level roles as a BIM Technician, Construction Project Coordinator or Design Technician
- Continuing professional development for existing construction professionals

COURSE AIMS

The Construction Environment and Digital Innovation is delivered as part of the Modular Acceleration Programme (MAP) pilot, aims to provide students with a comprehensive understanding of the construction industry environment, including its development, impacts, quality and safety practices, and employment opportunities.

Additionally, the course will equip students with practical skills in using digital applications for Building Information Modelling (BIM) to produce and manage construction project data. By combining these two units, students will gain both contextual industry knowledge and hands-on experience with cutting-edge digital tools that are transforming the construction sector.

COURSE OVERVIEW

Unit 4: The Construction Environment

LO1: Explore the development of the construction industry through the roles and relationships of the professionals involved
LO2: Assess the impact of the construction industry
LO3: Discuss the ways in which the construction industry ensures quality, timely completion, and safety
LO4: Examine the routes to employment and progression within the construction industry

Unit 26: Digital Applications for Building Information Modelling (BIM)

LO1: Discuss the role of model data in a BIM-enabled project
LO2: Model and modify common building elements for a given project
LO3: Generate 2D and 3D views of a building model to present key features of a given project
LO4: Assemble construction information using appropriate views, generated within a BIM application, for a given project

INDICATIVE COURSE STRUCTURE

Week 1
Course introduction, learning outcomes, assessment methods Overview of the construction industry and its development
Weeks 2-11
The course is structured to interweave the content from both units, allowing students to develop a holistic understanding of the construction industry context alongside practical digital skills. The sequencing builds from foundational concepts to more advanced applications, with formative assessment at the midpoint to check progress and provide feedback.
Week 12
Course review and reflection Summative assessment submission Next steps and progression opportunities

STUDY WORKLOAD

Whilst we have designed the course to be as flexible as possible, it's important to be realistic about the time and effort you'll need to invest outside of the classroom to get the most out of this course.

So, what does independent study involve?
Independent study is all the learning activities you'll do in your own time, outside of the scheduled lectures, workshops, and tutorials. This could include:

- Reading up on construction industry trends and BIM best practices
- Watching software tutorials and practicing your modelling skills
- Researching case studies and real-world examples to inspire your projects
- Completing quizzes and assignments to check your understanding

- Reflecting on your progress and setting goals for improvement
- Collaborating with your classmates on group projects and discussions

How much time should you expect to spend on independent study?

The course is designed to be completed over 12 weeks, combining guided learning and independent study. This means that for every hour you spend in class, you should plan to spend about 1.5 hours studying on your own. Of course, some weeks may be more intense than others, depending on the topic and your assignment deadlines. But as a general rule, you should aim to set aside at least a couple of hours each day for independent study.

TEACHING, LEARNING AND ASSESSMENT

The course will be delivered through a blend of lectures, workshops, case studies and directed self-study. Students will have opportunities to work individually and collaboratively to apply their learning to real-world scenarios. Formative assessment and feedback will support progress towards the final summative assessment.

SKILLS DEVELOPMENT

The course will develop key skills in areas such as building information modelling, digital design, construction project information management, and provide a broad appreciation of the dynamics of the industry. Learners will gain practical experience with industry-standard software while also engaging with the wider context of the built environment

The course also offers opportunities for learners to develop a range of valuable transferrable skills alongside the subject-specific knowledge. These transferrable skills are highly sought after by employers across various sectors and can support career progression and personal development. Key transferrable skills cultivated through this course include:

- Critical thinking and problem-solving
- Research and information literacy
- Communication and collaboration
- Commercial awareness and financial acumen
- Adaptability and resilience
- Time management and personal organisation
- Professionalism and ethics

ENTRY REQUIREMENTS

At Preston College, we're committed to making education accessible to adult learners looking to upskill or retrain. If you're aged 19-60 and living in England (or living outside England but working in England), we welcome your application to the Construction Environment and Digital Innovation course. Whether you're currently working in construction, looking to change careers, or seeking to return to education, we'll assess your application on an individual basis to ensure this course is the right fit for you.

To apply, you should meet at least one of the following criteria:

- GCSEs at grade 4 or above in English and mathematics (or equivalent qualifications)
- A Level 3 or higher qualification in a subject related to construction or the built environment
- Relevant work experience in the construction industry or a related field

We also consider applicants who can demonstrate relevant skills or knowledge gained through work or life experience. We understand that learning happens in many ways, and we'll take the time to understand your unique background and potential.

Enhancing Your Learning Experience

If you're not currently working in construction, we encourage you to seek out paid or voluntary work opportunities alongside your studies. This will allow you to apply your new skills in a real-world setting, making your learning more meaningful and boosting your employability.

Our team is here to support you throughout the application process and your learning journey. We understand that returning to education as an adult can be challenging, and we're committed to providing the guidance and resources you need to succeed. If you have any questions about the entry requirements or whether this course is right for you, please get in touch. Contact Us - Preston College

TUITION COSTS

The course is fully funded by the government as part of the Modular Acceleration Programme (MAP) pilot. This means that if you meet the eligibility criteria, you can study this course without paying any tuition fees.

RELATED COURSES

MAP02 Financial Legal and Statutory Requirements in Construction
HNC Construction Management for England (HTQ)
HNC Quantity Surveying for England (HTQ)
HNC Civil Engineering for England (HTQ)

For more information, please visit Construction Courses (preston.ac.uk)