

NOVEMBER 2021

**CAREERS SERVICE**

Careers Occupational  
Information Unit  
**Bulletin**

**CONSTRUCTION  
AND THE BUILT ENVIRONMENT  
IN NORTHERN IRELAND**

**Inside this Issue**

- ▶ Overview of the NI Construction sector
- ▶ Video/article insights into careers in the sector
- ▶ Further and higher education perspectives
- ▶ Entry routes into the Construction sector
- ▶ Useful websites

**SKILLS**  
TO SUCCEED



Department for the  
**Economy**  
[www.economy-ni.gov.uk](http://www.economy-ni.gov.uk)





## CONTENTS

<b>Welcome</b>	<b>Page 3</b>
<b>Introduction - construction careers</b>	<b>Page 4</b>
<b>The Construction Careers landscape</b>	<b>Page 5</b>
<b>NI Construction Sector overview - CITB NI</b>	<b>Pages 6-9</b>
<b>Federation of Master Builders - overview and apprentice snapshots</b>	<b>Pages 10-12</b>
<b>Further Education perspectives</b>	<b>Pages 13-19</b>
<b>Interview with Architectural Technology and Management student</b>	<b>Pages 20-21</b>
<b>Women's Tec</b>	<b>Pages 22-24</b>
<b>ICE - Pathways into civil engineering careers</b>	<b>Pages 25-27</b>
<b>McAvoy Group - Digital Technology and Sustainability in Construction</b>	<b>Pages 28-30</b>
<b>Higher Education Perspectives</b>	<b>Pages 31-44</b>
<b>Pathways into Construction Careers in NI</b>	<b>Pages 45-62</b>
<b>Useful websites</b>	<b>Pages 63-64</b>





## Welcome

This bulletin, published by the DfE Careers Occupational Information Unit (COIU), focuses on the construction sector in Northern Ireland. Through articles and video clips, it shares insights from the perspectives of those who work and study in the local construction sector, as well as those who teach and support students of construction-based disciplines in local further education college and universities.

The bulletin also provides information on entry routes into the construction sector and useful resources for further research.





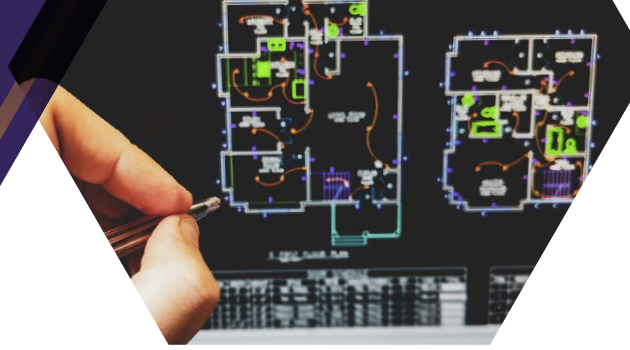
## What kind of careers opportunities are there in the construction sector?

The construction sector spans a huge variety of careers, including, but not limited to, **traditional skilled trades** such as carpentry & joinery, bricklaying, plumbing, electrical installation, plastering, stonemasonry and roofing etc.; **technical and professional jobs** such as architect/architectural technologist, site supervision, project management, quantity surveying, civil engineering, as well as careers involved in day-to-day **business support activities** such as IT, HR, legal services, marketing, and administration.

Like most other employment sectors, developments in digital technology and environmental concerns have also impacted the construction industry. Construction companies are keen to recruit people competent in the use of emerging digital technologies, such as Building Information Modelling (BIM), drones, augmented reality (AR) and virtual reality (VR). Sustainable construction projects aim to produce resource-efficient buildings and environments, which make use of recyclable/renewable materials where possible, thereby reducing environmental impact.

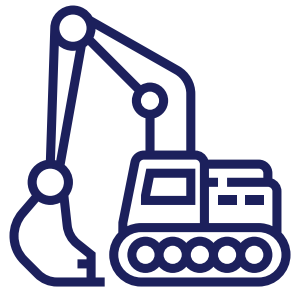
If you would like an overview of construction industry occupations including **craft** (e.g. painting and decorating, wall and floor tiling, wood occupations, general construction operative), **technical** (e.g. site technician, buyer, civil engineering technician, estimator) and **professional** (construction manager, surveyor, engineer) roles, check out the CITB NI [\*\*A Future in Construction Careers Guide\*\*](#)





## The Northern Ireland Construction Careers Landscape

The infographic below illustrates the current and future landscape of the construction sector in NI.



**THERE ARE**  
APPROXIMATELY  
**65,000**  
**WORKERS IN THE**  
CONSTRUCTION SECTOR\*

IN YEAR TO END OF SEPTEMBER 2021,  
**THERE HAS BEEN**  
**1,700 JOB POSTINGS**  
FOR THE **CONSTRUCTION**  
SECTOR IN NORTHERN IRELAND



**36% OF**  
**JOBS**  
IN THE SECTOR  
REQUIRE A  
DEGREE

MEDIAN SALARY OF  
**AROUND**  
**£30K P.A.**



**OVER 170 COMPANIES**  
IN THE PAST YEAR ARE  
ACTIVELY RECRUITING IN THE  
CONSTRUCTION SECTOR

OVER 200 EMPLOYERS ARE ACTIVELY  
RECRUITING IN THE SECTOR WITH  
**ALTERNATIVE HEAT LIMITED, MCLAUGHLIN**  
**& HARVEY AND WOODSIDE GROUP LIMITED**  
HIRING MOST FROM THE INDUSTRY.

**33%** OF JOBS IN THE SECTOR  
REQUIRE STANDARD GCSE  
GRADES OR A LEVEL 2  
NATIONAL VOCATIONAL QUALIFICATION OR BELOW



**THE MAIN SKILLS**  
**REQUESTED ARE**  
**PLUMBING, BUDGETING**  
**AND TEAMWORK/**  
**COLLABORATION**

\*per Construction Skills Network Labour Market Intelligence report - 5 year outlook (2021-2025)

Sources of data:

Industry, occupation, age, public/private sector and skill level Northern Ireland Statistics and Research Agency ([nisra.gov.uk](https://www.nisra.gov.uk)) | Report Output Labour Insight (UK) ([burning-glass.com](https://burning-glass.com))

You can also find out about the projected economic outlook for the construction industry in NI over 2021-2025 in the  
[Construction Skills Network Labour Market Intelligence report – 5 year outlook \(2021-2025\)](#)





## NI construction sector overview – Barry Neilson, Chief Executive, CITB NI (Construction Industry Training Board Northern Ireland)

**Barry Neilson,  
Chief Executive,  
CITB NI**

CITB NI represents the Construction Industry Training Board (CITB) in Northern Ireland and the Sector Skills Council for Construction, ConstructionSkills in Northern Ireland.

The organisation advocates for a safe, professional and fully qualified construction industry workforce in Northern Ireland, by encouraging the adequate training of those employed, or intending to be employed, in the local construction industry. CITB NI also aims to ensure that current and future construction skills needs are identified and understood, so that there is a skills pipeline (availability of appropriate training/qualifications) to supply these sectoral skills needs.

In the article below, Barry Neilson, Chief Executive of CITB NI, outlines the career options available in the Northern Ireland construction sector, dispels some myths associated with working in the sector, and shares his advice for those interested in building a construction career.

### **What kind of careers does the Construction sector in Northern Ireland encompass and why would you recommend this industry to young people/career changers/returners?**

By choosing a career in construction you will open doors to joining specialist people all working together to build a strong, long lasting future. You can have opportunities to progress and/or travel and work throughout the UK, Ireland and further afield as well as the potential to become self-employed in your chosen career.

With such varied and wide-ranging opportunities, a career in construction is challenging, exciting and rewarding. From the design, construction and maintenance of buildings and infrastructure projects such as bridges, roads, tunnels, waterways, etc. to working in specialist

sectors such as Built Heritage and film set construction.

Construction boasts a variety of careers including skilled trades such as Carpentry & Joinery, Bricklaying, Plastering, Stonemasonry and Roofing, technical and professional jobs such as Site Supervision, Project Management, Quantity Surveying and Civil Engineering to careers involved in day-to-day business activities such as IT, marketing, and administration.

**With new emerging digital technologies such as Building Information Modelling, Drone usage and Augmented Reality/Virtual Reality on the rise within construction, companies are now actively seeking to recruit people with these skills.**





**Barry Neilson,  
Chief Executive,  
CITB NI**

Whatever your talent, you can be sure that there is a career in construction for you. CITB NI has a wealth of information to help guide you through what is available. Simply visit our website [CITB NI Careers](#) where you will find lots of information that will sign post you to what careers are on offer within the industry.

**What are some common myths about working in the construction sector and what is the reality of working in the sector today?**

There are a lot of misconceptions about working in the construction industry. Common themes include:



**Myth 1: Construction is only an option if you do not perform well at school and are not academic**

▶ A career pathway into the construction industry has never been so accessible. You can consider options ranging from apprenticeship programmes to third level education. People choose construction because they like to work and utilise their skills. Construction offers a wide variety of careers including skilled trades, IT, marketing, project management, design and much more. Construction needs people with creative, technical, management and practical skills.

**Myth 2: Construction jobs are only for boys**

▶ Both men and women work within the construction industry. While there are still more men than women in the industry, the number of women in construction is growing and the industry is no longer seen as 'just for boys'. Have a look at some of our [Women in Construction](#) case studies highlighting females working in the local construction industry.

▶ You can find talented and well-trained women working on a wide range of jobs within the industry. CITB NI have a Women in Construction Network which brings together women working in the industry to learn from each other and build connections through site visits, events, and meetings. Find out more about our [Women in Construction Network](#)

**Myth 3: Working in construction is dangerous**

▶ The UK is at the forefront of workforce health and safety, with workforce wellbeing at the core of every project. Companies have learned that everyone has a role to play in taking responsibility for health and safety. Processes such as risk management plans, regular safety meetings and keeping a continuous eye on safety have a major impact on reducing construction site accidents and injuries.



**Barry Neilson,  
Chief Executive,  
CITB NI**

**Myth 4: Construction work is bad for the environment**

- ▶ There is a considerable focus on building sustainable buildings and leaving a positive legacy on the local environment. Local communities benefit from construction because it builds infrastructure, for example, to supply clean water and provide waste management systems.

**Myth 5: Construction is manual, cold outdoor work**

- ▶ While this may be true in some of the more traditional trades, there are a variety of roles in the wider industry working in a whole range of different locations and workplaces including designers, engineers, architects, human resources and technology experts. Your work can take you all over the world and no two days are the same.



**What advice would you give to someone who is interested in building a career in this sector? (school leavers; adult returners; career changers)**

**Despite many hurdles over the last number of years such as the downturn and the pandemic, construction still continued and the demand for skills, especially over recent months, has never been greater.**

**As a school leaver** - By joining one of Northern Ireland's largest industries, a career in construction can be challenging, exciting and rewarding. Construction is a historic industry that is respected around the globe. It has built our homes, our hospitals, our schools, our roads, our railways, our workplaces, our airports, our greatest cathedrals, and historic buildings. These buildings and landmarks will be here long after they have been constructed allowing you to make your mark on the landscape.

The skills and qualifications needed vary by occupation and range from apprenticeships and NVQs to HNDs, degrees and professional qualifications. Most trades

require a minimum NVQ Level 2 or above and professional occupations usually require a degree level qualification or equivalent. Whether you go to college, learn on site, or go to university, you'll obtain specialist training for your chosen career. Your career in any area in construction will require commitment and enthusiasm. Contact your local training provider, further education college or university for course information and entry criteria.

**As an adult returner** - Whatever your talent you can be sure that there is a career in construction for you. It's never too late to return to work and join the construction industry. Try and get some experience with an employer and contact your local training provider and further education college for information on courses.

**Construction...has built our homes, our railways, our workplaces, our airports, our greatest cathedrals, and historic buildings. These buildings and landmarks will be here long after they have been constructed, allowing you to make your mark on the landscape.**





**Barry Neilson,  
Chief Executive,  
CITB NI**

**As a career changer** – It's also never too late to join the construction industry. New technologies mean the construction industry is changing, growing, and adapting all the time and there may be roles that use skills and knowledge you may have gained in previous jobs that are transferable into the construction industry. A career in construction offers a variety of careers and opportunities. Research the roles that may interest you within the industry. It is also worth talking to employers and careers advisers to get a feel for the career opportunities available.

Whatever method of entry you decide upon, there are always career opportunities available and great potential prospects to diversify within the industry. Visit the [CITB NI careers website](#) for more information on key roles and options.

**CITB NI video/written case studies and further resources**

CITB NI has produced a range of resources which will be of interest to those considering a career in the sector. Our [careers video](#) showcases the varied and wide-ranging opportunities within construction. [Case studies](#) include video insights from apprentices; higher level apprentices; a business owner and a site manager, as well as written case studies from a range of employers, apprentices and females, all working in our local Construction industry. You can find further careers resources in the [CITB Careers Information pack](#)





## Federation of Master Builders

**Gavin McGuire**  
– Director of the  
Federation of  
Master Builders  
in Northern  
Ireland

The Federation of Master Builders (FMB) is the UK's largest trade association for the construction industry. We have a proud history of supporting and promoting small and medium-sized building companies – including sole traders – across England, Northern Ireland, Scotland, and Wales, since we were established in 1941 celebrating our 80th anniversary this year.

We are champions of quality construction work and we advocate for continuous improvement in building standards. We are passionate about supporting our members to attract new people into the industry, from all backgrounds, and train existing workers in the skills they will need for the future.

Gavin McGuire, Director of the Federation of Master Builders in Northern Ireland, offers a short overview of why the Construction industry is important to Northern Ireland, and what advice he would offer people who are considering a career in the sector.



**You have the opportunity to create your own legacy, be involved in projects in your community, that help you, your family, and your local area, to prosper in the time ahead.**



## Construction sector apprentice snapshots – video case studies

Local construction apprentices working for FMB firms share their experiences of the industry – from how they got started in their construction careers, to what their roles entail on a day-to-day basis, they offer their advice for those considering a career in the sector:



▶ **IONA**  
**MARLFIELD CONSTRUCTION**  
Carpentry & Joinery NVQ Level 2

You're actively in the industry...learning all the tips and tricks... you're getting paid as you're being trained.



▶ **LUKE**  
**LOWRY BUILDING AND CIVIL ENGINEERING**  
NVQ L3 Diploma in Wood Occupations –  
Site Carpentry

What I enjoy most about the Construction trade is the fact that you have an enormous sense of pride in what you do, which helps you stay motivated...helps you stay interested, to continue learning and progressing in your career.





**Construction sector apprentice snapshots – video case studies** *(continued)*



▶ **SEAN  
ALSKEA**  
Higher Level Apprenticeship in  
Civil Engineering

I enjoy the hands-on approach that comes with construction, you're always doing something different, you're working as a team...



▶ **NATASHA  
MOFFITT & ROBINSON**  
Honours Degree in Construction  
Engineering and Management

The company I work for specialises in Passiv and carbon-neutral homes, there's constantly new technology and improvements to building standards arising and it's something I do enjoy learning about.



## Building a successful career in construction - Further Education (FE) perspectives

**John Nixon,  
Construction  
Hub Manager  
for FE**

“ SERC is the designated Construction Hub for further education (FE) in Northern Ireland, and as the lead college, provides a platform for the other five colleges to work collaboratively in order to bring together teaching and curriculum excellence, CPD (continuous professional development), sectoral knowledge and employer engagement, to ensure high quality provision for learners and employers across Northern Ireland.

The Hub’s role includes: reviewing the curriculum in conjunction with the other colleges, to ensure its continued relevance to industry; acting as a point of contact in relation to inward investment, upskilling and skills development initiatives and leading and co-ordinating research to ensure future proofing of the curriculum and staff CPD. The Hub also works to ensure provision is aligned with the current and future needs of the Construction sector, in order to expand the Construction sector in Northern Ireland, through sectoral partnerships and collaboration with employers and stakeholders, e.g. Glass and Glazing Federation, Fire and Security Employers Federation, Building Services Engineering, Federation of Master Builders and CITB NI (Construction Industry Training Board NI).

With the growing focus on sustainability, the NI FE colleges will be offering a range

of green technology programmes (details will be provided on college websites in due course).

The new complex at the Erne campus of South West College has secured world-class sustainability accreditations and will deliver a range of programmes, including wind, biomass, sustainable construction, hydrogen and energy storage. SERC will also be opening a zero carbon centre in Holywood in 2022.

Below is a selection of some of the successes achieved by trainees, apprentices and students from a variety of construction-related further and higher education courses, across our Northern Ireland further education colleges. Here, they share their experiences of working and studying towards

careers in the construction industry, and share their advice for those considering a career in the Construction sector. ”

**John Nixon, Construction Hub Manager for FE**

**LET'S DO CONSTRUCTION**

BUILDING SERVICES SURVEYING ARCHITECTURE  
ENGINEERING SERVICES HEATING PLASTERING  
JOINERY CARPENTRY CONSTRUCTION MANAGEMENT  
ELECTRICAL FIRE & SECURITY SYSTEMS C.A.D.  
BRICKLAYING MAINTENANCE PLUMBING  
AIR CONDITIONING REFRIGERATION TILING  
CIVIL ENGINEERING PAINTING & DECORATING B.I.M

The Construction Hub: Leading skills delivery for businesses throughout the region

FE Colleges: Leading Together on Curriculum Excellence

NI FE Colleges: Belfast Met, Northern Regional College, SERC, North West Regional College, SRC, South West College





## Further Education Student Snapshots

### ▶ JAMES LITTLE JOINERY APPRENTICE, SOUTH WEST COLLEGE

James is currently studying Level 3 C-Skills Bench Joiner/Apprenticeship programme at South West College. When he became an apprentice, he was employed with D&G Woodcraft where he was involved in building cabins, and then set up a small business making model farms, selling them at shows. He progressed onto L3 Bench Joinery at South West College, while working for D&G Woodcraft and continued to build up his business, expanding into exporting greenhouses throughout throughout Northern Ireland and the Republic of Ireland.

#### James' advice:



Work hard and try to get as much work experience as possible, to test out your career interests.



▲ Above are photographs of some of James' projects





## Further Education Student Snapshots *(continued)*

► **NIALL MCCLUSKEY**  
**BTEC LEVEL 3 CONSTRUCTION AND THE BUILT ENVIRONMENT**  
**STUDENT, SOUTH WEST COLLEGE**

Niall is currently studying BTEC Level 3 Construction and the Built Environment at South West College. He plans to enrol on the Higher Level Apprenticeship Foundation Degree in Construction Engineering with Surveying at South West College. After college he would like to work as an Architectural Technician.

**Niall's advice:**

- It's important to attend every class and listen carefully as it means you keep up to date with the work for handing in assignments. I have worked on construction sites since I was at school and I knew that was what I wanted to do for my future career.



It's important to attend every class and listen carefully as it means you keep up to date with the work for handing in assignments.



## Further Education Student Snapshots *(continued)*

### ▶ MEGAN DAVIDSON

#### LEVEL 3 APPRENTICE - ELECTRONIC SECURITY & EMERGENCY SYSTEMS, SOUTH EASTERN REGIONAL COLLEGE

Megan had always been interested in practical hands-on tasks and while she enjoyed school, her main goal was to get a job working in the construction industry. She really enjoyed the electrical aspect of the technology class, such as making small electronic systems. Megan knew that she could make use of this knowledge, so applied for a fire and security apprenticeship and now works in a Fire and Security Service role.

She and another girl from her class represented the college in the regional and national Fire competitions, winning the regional competition, and coming second in the national competition.

Megan's employer has promoted her to service technician, and this has given her the appetite to take on new challenges. She hopes to undertake an additional course of study in Computer Aided Design (CAD) to increase her prospects of working in project management.



**To be successful, you need to work and study hard...I can certainly recommend it, I am a regional champion, and a runner up in the national competition. I have my own company vehicle and I am working on my own jobs.**

#### Megan's advice:

- ▶ Ask for advice on the career that you have chosen and understand why you want to follow this career. I spoke with my school teacher who gave me great advice.
- ▶ To be successful you need to work and study hard. This will mean giving up some of your personal time. I found it hard initially when my friends were out partying, and I stayed in to complete my course work and study for my exams. I can certainly recommend it, I am a regional champion, and a runner up in the national competition. I have my own company vehicle and I am working on my own jobs.



## Higher Education Student Snapshots



▶ **OISIN O'KANE**  
**BSC HONOURS (TOP-UP) IN CONSTRUCTION ENGINEERING & MANAGEMENT, SOUTH WEST COLLEGE**

Oisín completed OU BSc Hons. (Top-Up) in Construction Engineering & Management at South West College in June 2020 and is currently working full-time in the Construction industry.

He studied the Level 3 at South West College, during which time he received the Award for Contribution to Student Life. He then studied the Ulster University Foundation Degree in Construction Engineering with Surveying at the college, where he won an SSE Scholarship.

Oisín's future career goals include achieving Chartered Engineer status, with further experience.

**Oisín's advice:**

- ▶ Make sure you attend every class and always take on board what is being said by the tutor. This will make it easier when it comes revising for exams or completing the assignments.
- ▶ I always knew I wanted to work in construction, having been working on building sites labouring, even when I was at school during the summer holidays. It is good to get as much work experience as you can even if it is unpaid. Once you gain the experience, you will not have any trouble getting employment in the sector.

**It is good to get as much work experience as you can...once you gain the experience, you will not have any trouble getting employment in the sector.**





## Higher Education Student Snapshots *(continued)*



► **BARRY DONNELLY**  
**FOUNDATION DEGREE STUDENT AT SOUTH WEST COLLEGE**  
**(ULSTER UNIVERSITY FOUNDATION DEGREE IN ARCHITECTURAL**  
**ENGINEERING AND ENERGY)\***

After working as a qualified plumber and mechanical supervisor for over 20 years, Barry was given the opportunity to work as a mechanical resident engineer within a building services engineering design consultancy. He took the chance to step out of his comfort zone and decided to further his education and career prospects by enrolling on the Foundation Degree in Architectural Engineering and Energy delivered at South West College.

Barry intends to continue studying and complete the BEng (Hons) Degree in Building Services with Sustainable Energy offered at South West College. In addition, he intends to apply to CIPHE (Chartered Institute of Plumbing and Heating Engineers) or CIBSE (Chartered Institution of Building Services Engineers) for chartered status in the not so distant future.

**Barry's advice:**

- Think carefully about what you would like to do and choose wisely. For school leavers, try to over-achieve with grades required for the course you are interested in, particularly Mathematics and English, leaving some flexibility with any future career path you may choose.

*\* Note: South West College now offer the OU Foundation Degree in Building Services with Sustainable Energy.*

**Think carefully about what you would like to do and choose wisely. For school leavers, try to over-achieve with grades required for the course you are interested in, particularly Mathematics and English, leaving some flexibility with any future career path you may choose.**



## Higher Education Student Snapshots *(continued)*



► **LOUISE MARTIN**  
**DEGREE STUDENT AT SOUTH WEST COLLEGE (OPEN UNIVERSITY  
TOP-UP BENG HONS DEGREE IN BUILDING SERVICES WITH  
SUSTAINABLE ENERGY)**

Louise returned to education after gaining work experience in an air-conditioning company and being encouraged by her boss to return to study. She completed a business administration Level 3 course but was looking for something more closely related to her work. She found the Building Services Foundation Degree course with South West College, which she applied for through Accredited Prior Experiential Learning (APEL), and graduated in 2014. The opportunity then arose in 2020, to top up her Foundation Degree, to complete the Level 6 (Top-up) BEng Hons in Building Services with Sustainable Energy at South West College and Louise decided this would be a good opportunity to progress in her studies and further her career.

Upon completion of the Level 6 (Top-Up) Hons Degree in Building Services with Sustainable Energy, Louise plans to continue working within the HVAC (heating, ventilation and air-conditioning) field and pursue CIBSE (Chartered Institute of Building Services Engineers) status. Louise would like to progress within her current field, with the aim of going into consulting services in the future.

**Louise's advice:**

- I think the most important thing is to enjoy what you do; this will ensure that you put the effort in. It is important to work hard and set yourself small goals, when you meet these goals it gives you a satisfaction that will spur you on to work harder. Take pride in your work and work hard to get to where you want to be.

**It is important to work hard and set yourself small goals, when you meet these goals, it gives you a satisfaction that will spur you on to work harder. Take pride in your work and work hard to get to where you want to be.**



## Interview with Joanne Caskey, BSc Hons Architectural Technology & Management student, Ulster University

**Joanne  
Caskey,  
Ulster  
University**

### Higher education student profile – Joanne Caskey, Ulster University – BSc Hons Architectural Technology & Management at Ulster University

Joanne completed a Level 3 Diploma in Construction at NRC after leaving school, and later returned to the college as an adult to undertake a Foundation Degree in Construction with Surveying, after taking some time away from education to work and focus on raising her family. Joanne received a distinction in her Foundation degree and is currently studying BSc Hons Architectural Technology & Management at Ulster University. Below, she explains what attracted her to Construction, what she has enjoyed most in her education journey so far and outlines her career plans for the future.



#### What attracted you to studying Construction?

I was attracted to construction ever since I can remember. My father works within the construction industry and built and renovated homes in his spare time, so growing up assessing properties and being on a building site was normal for me. Construction is a huge industry with so many opportunities and is ever changing, with challenges to overcome in terms of the environment and sustainability.

#### What aspects of your education journey have you enjoyed most so far?

After completing a BTEC in Construction, I studied for a Foundation Degree in Engineering and Surveying, including work-based learning, securing a placement

within a multidisciplinary practice close to where I live. This experience was invaluable. I spent 18 months here completing property surveys, learning so much more about the software used including Autocad, Revit, Sketchup and Photoshop. Within this placement, I found I really enjoy this aspect of construction and decided to continue my education onto university and enrol in a Bachelors degree in Architectural Technology and Management. I would recommend anyone who is studying construction to try and gain a placement within the industry as you will learn so much this way and it gives you a feel for what your career might look like after graduating.





**Joanne  
Caskey,  
Ulster  
University**

### **What are your career goals/aspirations for the future?**

I am very excited to move forward, get my degree and get started on my career. What I have experienced so far in this industry is that you will never stop learning. The industry continually changes, in line with what areas need in terms of services and better homes for families. I aim to complete this degree with a first and get a graduate job as soon as I can. Final goal, once established, will be to build my own family home.

From early on in your path, you can continually be working on your professional profile, such as building connections within LinkedIn, attending CPD events showcasing new materials, construction-related software programmes and most importantly, creating a CV/ portfolio to showcase what work you have been involved in so far, which may include placements and your student coursework to date.

Another aspect of the construction industry which I have had some involvement with is Woman in STEM - for International Women's Day, myself and a

few other female past and present students from the Northern Regional College took part in an online Zoom where we discussed our experiences as women in the construction industry. When I graduate, I would be interested in being involved in promoting the industry to females and chatting to other students etc. about it, from personal experience.

### **What advice would you give to other adults considering returning to education/preparing for a career in the Construction sector?**

In my opinion, it helps if young people have an idea of what industry they are thinking of going into after school. When I was choosing my GCSEs, I knew I wanted to work within architecture so it was easy to research what subjects would benefit this choice, so I chose Double Award Science, Art and Graphic Products. I was able to base my art project on Architecture and had my work experience week within an architect's practice.

My final bit of advice is, get as much experience in the real world as possible, even if it's unpaid days etc., this will give you so much 'free education' - it builds good relationships with other individuals in the industry and I feel especially in Northern Ireland, being a small area, you can get a scope for the main construction companies in the area and get in touch, ask questions and enjoy it. Construction will always be in demand and will continually change over the years, so be prepared to 'learn something new every day'. For me the variety, the importance and the beauty of the industry are what make it a fantastic career.

**Being a female myself, it is inspiring to chat to other females, and hearing their successes and passion for what they do has inspired me to work harder and reach similar goals. I have been lucky and had several amazing lecturers and workplace mentors who have given me the confidence and encouragement to continue my education and push on, even as a mature student with a family.**





## WOMEN'STEC

Lynn Carvill,  
WOMEN'STEC

### Construction careers are #NotJustForBoys

Based in North Belfast, **WOMEN'STEC** is the largest provider of non-traditional skills training for women in Northern Ireland. It offers training in joinery; furniture-making; plumbing; painting; wallpapering; electrics; gardening; tiling and more, enabling women to take up employment in non-traditional sectors.

In the article below, **WOMEN'STEC** CEO, Lynn Carvill, explains more about the organisation, the training and support it offers, and shares her advice for females considering a career in construction.



#### What is WOMEN'STEC?

**WOMEN'STEC** is based in North Belfast and provides trade skills training and confidence building for women and girls. Our programmes aim to empower women by building self-confidence and independence, and we promote and support participants' self-efficacy to take on challenges in their personal lives, education and training and employment. Working closely with the local construction industry, **WOMEN'STEC** facilitates female access to work opportunities in non-traditional sectors, engaging women and girls through trades, horticulture and IT.

#### What kind of training programmes/courses and support does WOMEN'STEC offer?

**WOMEN'STEC** offers practical trades courses in joinery, carpentry, plumbing, painting and decorating, electrics, horticulture and tiling. We are proud to be

a registered OCN NI Centre and all courses can be delivered up to an OCN Level 2 certification. The practical skills training forms the core of **WOMEN'STEC**'s approach to personal development and confidence building and our focus on the delivery of "non-traditional" trade skills has proven very successful in terms of positive impact.

**Our ethos and mission challenges outdated conceptions surrounding gender stereotypes by offering women the opportunity to experience and build hands-on trades skills, which the majority of women have never tried before.**

Lynn Carvill,  
WOMEN'STEC

2019 saw the launch of our **#NotJustForBoys** programme, which intersects with growing awareness and initiatives to encourage more young women in sectors where they are significantly underrepresented. The project works directly with local schools and industry to inspire girls to explore non-traditional career pathways through taster sessions, work experience placements and mentoring opportunities.

**WOMEN'STEC** also offers support and training programmes for young mums from the local area, using DIY and trade skills sessions to build independence and confidence among participants, the majority of whom are facing multiple barriers to training and employment.

**TIME4US** enables the young mums to attend courses by providing free, onsite childcare, which the children attend while their mums learn basic DIY skills by building their own piece of pallet furniture from scratch. We are also very excited to be piloting the **HER Space** project, which involves refurbishing a shipping container for use as temporary accommodation for local women in crisis.



In normal circumstances **WOMEN'STEC** delivers all programmes onsite in our workshops in North Belfast. However, we responded quickly and efficiently to the impact of the coronavirus pandemic by digitising our workshops and moving courses and training online, which allowed us to continue and extend our important work with and support of women in NI.

**What advice would you give to any women/young girls considering a career in a sector such as Construction, which has traditionally been male-dominated?**

First of all, don't be put off by the fact that so few other girls are thinking about going into the industry you're interested in! Your friends and family and even your teachers may not understand and look at you funny right now, but believe us, it will be worth it in the end. With that in mind, try to seek out positive role models and mentors (or if you can't find one, reach out to **WOMEN'STEC** and **#NotJustForBoys** and we'll be happy to help!)

Ask whoever will listen about what opportunities are available for hands-on experience in your area of interest, that's the only way to really get a sense of what it'll involve and whether it's for you or not. There are so many opportunities in traditionally male-dominated industries which females simply aren't accessing and we want to see that change.

So tell your friends to keep an open mind, their dream job could be something completely different to anything they've imagined (and so could their salary!). The Construction Industry offers a wealth of varied and extremely lucrative career opportunities.

**WOMEN'STEC also knows from experience that many, many young women, who have never even considered a non-traditional pathway, possess the personal characteristics and transferable skills that are essential for working in construction and other "non-traditional" sectors.**





## WOMEN'STEC Success snapshot

### ► SHANNON'S STORY

Shannon came to WOMEN'STEC for help in securing a plumbing apprenticeship in December 2019. Her initial placement with a small plumbing firm had ended abruptly (through no fault of her own!) just a few months in, and Shannon had to make over 100 calls trying to find an alternative. All these calls were unsuccessful, so she finally contacted **WOMEN'STEC** for assistance, and we were able to place her with the Housing Executive Northern Ireland. Shannon made a successful start with the team there, and has been supported by colleagues across the department, who she sees as a new family. She has also loved meeting her new clients, who are enjoying seeing a woman pursuing a career in the trades.





## Institution of Civil Engineers (ICE) – pathways into civil engineering careers

**Jenny Green**  
(Regional  
Director)



### What is civil engineering and what is the role of ICE?

Civil engineers design, create and connect up the world around us. They help make our villages, towns and cities work for the people living there and are vital in helping provide the infrastructure underpinning everything we do.

The Institution of Civil Engineers (ICE) is a professional membership body that governments and industry listen to for our members' expertise. We also provide support and knowledge-sharing to our 95,000 civil engineer members around the world.

### Civil Engineering in NI

This is an exciting time to join the civil engineering profession. People and government here are driving big changes to make sure we live in a sustainable way, so there is a lot of work to be done as we update our energy systems, travel options,

and our ways of living and working. Civil engineers will be at the heart of providing the infrastructure to enable these changes, making a real difference and improving people's lives and our environment. Over the last few years, studies have shown that our sector needs many more civil engineers to deliver what we need, so there are huge opportunities and demand for these valuable skills.

### Entry routes

There is a wide range of routes into a civil engineering career. You can stay in education, for A-levels or a BTEC diploma at school or college, and then you might want to progress to full-time university for a degree. If you'd rather get straight into working, you can become a civil engineering apprentice and study at college or university while also learning (and earning!) on the job, right up to Master's degree level. Find out more about these options at [ICE - How can I become a civil engineer](#)

**Civil engineering is everything you see that's been built around us. It's about roads and railways, schools, offices, hospitals, water and power supply and much more. The kinds of things we take for granted but would find life very hard to live without.**



# Careers Occupational Information Unit Bulletin



**Jenny Green  
(Regional  
Director)**

## Progression

Once you have good experience and have developed your expertise, the best way to show how much you know and can do in your job is to become professionally qualified with ICE and add letters after your name – our three grades of professional membership are Engineering Technician (EngTech MICE), Incorporated Engineer (IEng MICE) and Chartered Engineer (CEng MICE).

ICE qualifications are recognised internationally, so you could potentially work anywhere in the world. When you qualify professionally, you're also telling employers that you're highly capable and committed. This puts you in a stronger position when it comes to promotion and pay.







## Video clips – pathways into civil engineering

In the video clips below, Stephanie, a graduate civil engineer, and Eoin, an apprentice civil engineer, share their different routes into the local civil engineering industry.

▶ **GRADUATE CIVIL ENGINEER – STEPHANIE MCVEIGH**

In this clip, Stephanie explains why she chose civil engineering as her career, how she got into her current role within a design, engineering and project management consultancy and her career goals for the future.

**In my opinion, one of the most important attributes of being a civil engineer, is people skills... Other useful skills would be problem-solving or creative thinking, it's solving people's problems, whether it's a new road, some sewers, foundations. There are so many things civil engineers can specialise in.**

▶ **APPRENTICE CIVIL ENGINEER – EOIN ROONEY**

In this clip, Eoin explains why he chose to become an apprentice, what he has discovered about civil engineering since he started working in his current role within a multidisciplinary consultancy practice, and how he plans to develop his career in the future.

**The highlight of my apprenticeship has been going to sites and getting to see the work I've done in the office, in real life. Getting to see the people on site building it, getting to see how it's changing people's lives.**



## McAvoy Group - The role of digital technology and sustainability in Construction

Optimising the use of digital technology in Construction projects, while minimising their environmental impact, are important themes in today's construction industry.

In the article overleaf, offsite construction specialists, McAvoy Group, explain how they use digital technology in their projects to enhance efficiency and productivity, and outline how their focus on sustainability has facilitated a reduction in their projects' energy consumption, cost, carbon emissions and waste.

Northumbria Specialist Emergency Care Hospital





## McAvoy Group - The role of digital technology and sustainability in Construction *(continued)*

### What does McAvoy Group do?

The McAvoy Group is an award-winning offsite construction specialist headquartered in Northern Ireland. The group provides modular building solutions for hire and sale, specialising in the health, education and commercial sectors. We offer full design and build solutions incorporating modern methods of construction (MMC) across the UK and Ireland.

Setting ourselves apart from our competitors, McAvoy benefits from our own 70, 000 sq. ft. purpose-built manufacturing facility with the capacity to produce around 1,200 sections each year. This means we can maintain a flexible approach and gives clients the certainty of completion on time and on budget.

### How important is the use of Digital technology in McAvoy Group construction projects?

At McAvoy, we focus on modern methods of construction (MMC) so digital technology is a very important component of our projects, whether that's permanent offsite or modular hire.

We're proud of the work we do to advance MMC, demonstrating the many benefits and capabilities that can make it a better option than by using traditional construction techniques - **digital technology is a key part of the build process for MMC schemes: improving efficiency, increasing collaboration, and keeping projects on track.**

Building Information Modelling (BIM) is an important element of our design and programme planning. **BIM enables us to achieve optimum project efficiency by allowing virtual design team collaboration, along with enhanced manufacturing and site installation**

**capabilities and digital management of all our resources.**

Digital technology has also facilitated important innovation projects, including the Seismic Consortium. McAvoy is one of several industry leaders working on Seismic; a pioneering research and development project that set out to develop standardisation for, initially, educational facilities, and subsequently, healthcare and commercial buildings, built using offsite construction. It will help to reduce costs, cut lead times for new schools to be built and improve

productivity. In 2020, Seismic II - the second part of the project - received funding from UK Research and Innovation (UKRI) via its Transforming Construction Challenge. We are now focusing on the building fabric, and developing wall, ceiling and roof components that are interoperable with the frame. Digital technology is vital - the construction industry underwent a significant transformation in recent years, so it's very important to make sure that new digital solutions are created alongside new products and construction techniques.



McAvoy Group Homes England offices, Northstowe





## **McAvoy Group - The role of digital technology and sustainability in Construction *(continued)***

**Sustainability is an important issue across all sectors, including Construction. How does McAvoy Group ensure sustainability in its construction projects?**

**Our offsite buildings are designed to minimise the impact on the environment, with reduced energy consumption, lower running costs, ease of remodelling and lower carbon emissions throughout the building's lifecycle.** By creating a large proportion of our buildings offsite in a factory setting, we also cut the emissions associated with the delivery of the project - materials are not wasted, and there are far fewer vehicle movements to and from site.

We have made considerable strides in recent years to reduce the amount of waste we produce - waste products from our manufacturing processes have seen a huge reduction across all materials, from plastic and plasterboard through to steel, timber and cardboard. Other initiatives, including the use of clever technology, have also helped reduce our carbon footprint in line with global trends.

We also play a lead role in developing further methods to improve sustainability, including the Seismic Consortium, which forms part of the UK government's Net Zero strategy. The Seismic steel frame design will, alone, reduce the carbon footprint by a third, compared to existing comparable modular frames.

In terms of broader sustainability initiatives, McAvoy is proud to boast a diverse and inclusive workforce and supply chain, investing in its people through training initiatives, personal development programmes, promoting professional qualifications, introducing agile working and encouraging participation in local community projects.

**What kind of careers opportunities are there within the McAvoy team?**

At McAvoy, we are committed to developing and retaining our people and supporting them to achieve both personal and business goals. We know that if we are to achieve our vision, we need to recruit and retain the best people and make sure that we are offering the best possible learning and development opportunities. Whatever the role at McAvoy, we give everyone the chance to realise their potential.

**There are a range of roles within McAvoy, across a series of departments, from architecture and design through to manufacturing and quality control, plus office-based roles in finance, marketing and accounts.**

**What kind of advice would you give to someone who is interested in building a career in the Construction sector?**

**Think like a leader and take responsibility for constructing your own career.**

**Embrace every development opportunity that comes your way** - choose an employer that will support your goals, provide varied learning opportunities and which recognises that investing in people is the key to success. At McAvoy, we know that our people are the backbone of our business and we are committed to supporting their development and helping them to achieve their goals, both personal and professional.



## Higher Education Perspectives on Construction and the Built Environment course and career options



In this section, local college and university lecturers outline the broad range of Construction and the Built Environment higher education courses available and the diverse construction career paths they can lead to.

### Ulster University

This article, written by the team at Belfast School of Architecture and the Built Environment (BSABE), explores some of the key opportunities and challenges facing the construction sector in NI currently and in the future, and explains the various career options which the courses on offer at BSABE have the potential to open up.



Ulster University new Belfast campus – Artist impression



## Ulster University – Belfast School of Architecture and the Built Environment

The Belfast School of Architecture and the Built Environment has a proud track record of working with professional bodies and industry to produce graduates with the skills and qualities for a rewarding career both locally and internationally. All undergraduate courses and most of the postgraduate courses are accredited to professional bodies such as CIOB (Chartered Institute of Building), RICS (Royal Institution of Chartered Surveyors) and the RTPI (Royal Town Planning Institute). Accreditation ensures graduates have recognised qualifications worldwide and the courses are of the highest quality. Our links with industry provide a competitive edge in employment; internships and placements for students often lead to job opportunities. The suite of postgraduate courses also cater for professional development, diversification and conversion or changes of direction on careers. All this is supported by state of the art facilities on our new Belfast campus.

Our students also recognise the value of what we offer. Ulster University is rated as the Number 1 university in Northern Ireland for student satisfaction according to the 2021 National Student Survey.

## What are some of the key opportunities and challenges facing the Construction sector in NI, currently and in the future?

At Ulster's Belfast School of Architecture and the Built Environment (BSABE) we feel **this is one of the most exciting, challenging and rewarding times to be embarking on a career in one of the many complementary professions and disciplines associated within the broad construction sector. The next generation of construction experts will be required to design, build and retrofit our homes, businesses, facilities and communities to achieve the sustainability goals in the brave new world we now need to create.** Be that through planning the space, infrastructure and transport systems needed, designing modern energy efficient buildings, or developing and utilising innovative techniques and materials to achieve the carbon neutral world we require, construction professionals will be at the forefront of those endeavours and achievements.

Part of the task faced by the construction sector is reducing its carbon footprint. The production of cement and other materials produces huge amounts of CO<sub>2</sub> while construction waste represents 36% of total waste produced across Europe (Eurostat 2020). Much of the waste is of high value and recoverable yet the majority ends up in landfill or at best as backfill for other construction projects. Addressing this is a challenge but also a huge opportunity for the next generation of construction professionals, whether they are architects, engineers, construction managers, quantity surveyors or any of the related disciplines.





It will require experts throughout those disciplines who are committed to sustainable practices and have the knowledge, skills and innovation to deliver.

Sustainability is now at the core of all courses delivered at BSABE and there is an increasing emphasis on digital technology and digital literacy. You will not only gain the technical expertise and skills of the discipline but understand the wider implications for that discipline in the challenges we face in delivering sustainable development: designing and building for the future while rectifying issues from the past.

### **Please outline the range of higher education course options relating to Construction that are currently available at Ulster University**

There are a wide range of courses offered by the School which can lead to rewarding and enjoyable careers and which can cater for a range of interests, both at undergraduate and postgraduate levels. From a people and property perspective, there are courses in **Planning Regeneration and Development**, and **Real Estate** at undergraduate level and **Planning and City Resilience** or **Real Estate** at postgraduate level. From a design perspective, **Architecture**, **Architectural Technology and Management** or **Architectural Engineering** are all available and may appeal to those of a creative or artistic nature seeking to pursue a career in the construction sector. We offer several **civil engineering** courses, leading to a range of qualifications and specialisms at both undergraduate and postgraduate level; competence in maths would be important here.

Of increasing importance to our future are the BSc courses in **Energy** at undergraduate level and at postgraduate level we offer Master's courses in **Energy Storage**; and **Renewable Energy and Energy Management**. This sector will take on an ever-growing significance in meeting the increasingly demanding sustainable energy targets we must achieve over the coming years.

The School also has courses in **Construction Engineering and Management**, **Building Surveying**, and **Quantity Surveying** at undergraduate level and a postgraduate course in **Construction Management**. These courses address a range of interests and core careers across the construction disciplines with sharing of modules across courses to enable inter-disciplinary learning which reflects the professional workplace of our graduates.

A world-renowned MSc in **Fire Safety Engineering**, supported by top class laboratory facilities, provides a further opportunity for engineers to diversify in an increasingly important area.

Many of courses are offered as a part-time option, widening access and enabling people to study at a time and pace that meets their needs, while our suite of Master's level courses enables continuing professional development opportunities.

We also offer an increasing range of Higher Level Apprenticeships in partnership with the Department for the Economy.



### What kinds of careers options do these courses have the potential to open up?

Despite the difficulties faced in recent times, the construction sector continues to be buoyant and offers fantastic opportunities across the range of disciplines. We are confident that Ulster graduates will continue to be in high demand.

“Construction has bounced back quicker than expected from the Covid-19 pandemic and the industry will reach 2019 levels of output in 2022. By 2025, the industry will need to recruit an additional 217,000 new workers just to meet demand. “That’s the forecast of the Construction Skills Network (CSN) 2021-25. **(CITB 9<sup>th</sup> June 21).**”

“We must also make sure that we invest in the skills that will drive change and meet new and growing needs such as Net Zero emissions and Building Safety. We will be announcing plans soon to tackle specific skills and occupations such as leadership and management, digital skills and skills related to energy efficiency.” **(CITB Policy Director Steve Radley, 21<sup>st</sup> June 21)**

As noted above, **the construction sector is broad and not purely focused on building. There are a myriad of supporting disciplines and professions that all work together to deliver and protect our built environment. There are opportunities for you whatever your interests.**

At Ulster we’ll not only set you on your desired path but support you on your further development through a range of flexible postgraduate course, all taught by experts in their field.

### What advice would you give to someone who is interested in building a career in this sector?

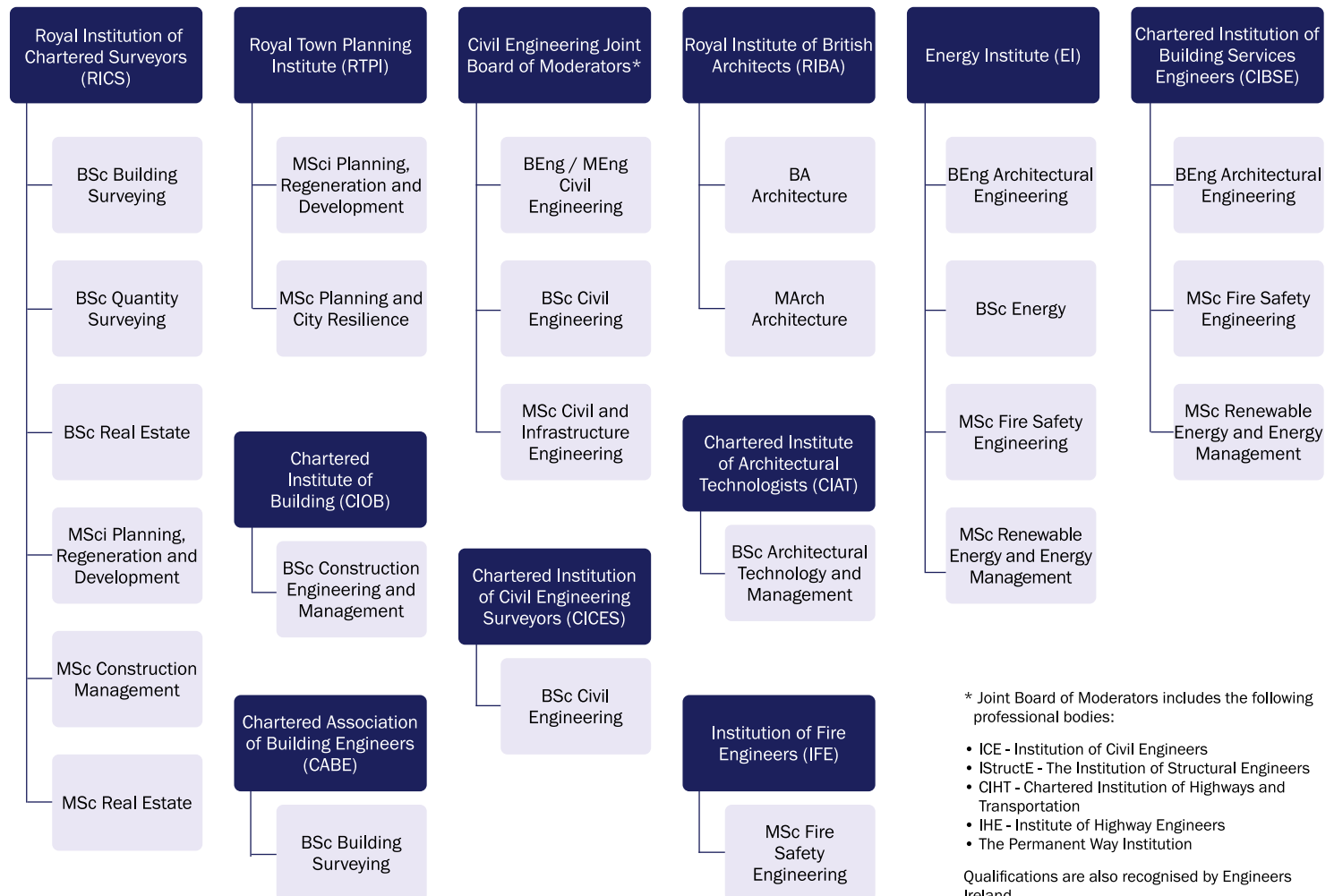
The world will always need homes, businesses, infrastructure, transport, utilities and energy. The challenge now is to deliver that in a sustainable way. At its core Ulster’s BSABE is committed to delivering the broad range of construction and construction related professionals needed for those roles. If you are interested in a sustainable future and feel you are innovative, creative, adaptable or simply have an interest in contributing to this essential sector there are a diverse range of opportunities available at Ulster coupled with a very supportive learning environment.

It is a wide and diverse sector which caters for a wide range of interests and whether you’re thinking about which subjects to study, considering your options or looking for a development opportunity, check out our website: [Belfast School of Architecture and the Built Environment website](#)

Or contact us via email:  
[BSABE@ulster.ac.uk](mailto:BSABE@ulster.ac.uk)



The [Belfast School of Architecture and the Built Environment at Ulster University](#) has long-established partnerships with all the professional bodies that accredit our courses. This ensures that the various programmes remain current, meet professional standards, and produce graduates who are in high demand by industry. Many teaching staff are also Chartered Members of a professional body, further assuring the excellent quality of our courses.



\* Joint Board of Moderators includes the following professional bodies:

- ICE - Institution of Civil Engineers
- IStructE - The Institution of Structural Engineers
- CIHT - Chartered Institution of Highways and Transportation
- IHE - Institute of Highway Engineers
- The Permanent Way Institution

Qualifications are also recognised by Engineers Ireland





**QUEEN'S  
UNIVERSITY  
BELFAST**

## Queen's University Belfast – Construction-related courses and career options

QUB lecturers offer their advice on the Construction-related course options available at the University and the careers options these can open up for prospective students.

### Architecture/alternative careers in design and construction

#### What does Architectural education at QUB entail? What undergraduate and postgraduate course options relating to Architecture are currently available at QUB?

Architecture is a good starting point for any career in design and construction disciplines and professions. Our courses at Queen's provide students with a broad skill set suited to a range of careers through technologies, humanities, professional studies and design.

Architectural education at Queen's University Belfast offers a diverse introduction to a range of disciplines across science and humanities. Undergraduate and postgraduate courses are design based and through the medium of the design project, students are introduced to a wide range of disciplines and consultants involved in the construction industry.

In 2020, students at Queen's declared a Climate Emergency. The student led group is a dynamic platform to respond to critical environmental challenges with the objective of pioneering new and emergent approaches to sustainable construction and energy efficiency.

The relationship between designing and making is a key feature of Architecture at QUB which encourages students to consider and study alternative approaches to construction and fabrication. This is part and parcel of the facilities we have to teach including individual work-spaces for all students in dedicated design studios and our model-making workshop, staffed by an experienced and dedicated technician.

Our **BSc Architecture** and **MArch** courses are **RIBA validated** for those interested in traditional routes into architectural practice. Queen's also offers a professional **RIBA Part 3 course**, successful graduation from this third and final part of architectural education qualifies successful graduates as Architects.



**QUEEN'S  
UNIVERSITY  
BELFAST**

### What kinds of careers options do the courses have the potential to open up?

Architectural education equips graduates with a host of skills including team working, analysis and creative thinking. All our courses offer the opportunity to engage with external professionals, industry and local and international organisations. The breadth of content included in our courses in Architecture at Queen's, enables graduates to move into a range of careers, including creative practices, project management, environmental analysis, digital technologies, policy and research. We regularly review our course content in response to critical global challenges and current issues, ensuring our graduates are at the leading edge of practice and emerging digital technologies. Our courses prepare graduates to work in a range of sectors including:

- ▶ **Conservation & Historic Preservation**
- ▶ **Digital Design & Manufacture**
- ▶ **Education/Teaching**
- ▶ **Housing, Education, Healthcare**
- ▶ **Infrastructure & Networks**
- ▶ **Property Development**
- ▶ **Research & Innovation**
- ▶ **Specialist Consultancy e.g. Fire**
- ▶ **Sustainability & Zero Carbon**
- ▶ **User/Client Representation**

We have alumni working across the world in a wide range of sectors. A high percentage of our Architecture students become qualified architects and work in range of architectural practices globally, including large multi-disciplinary practices such as ARUP, international practices such as Foster and Partners, and award-

winning local firms. Our CPM graduates go on to work for organisations like Arcadis, AECOM, Jacobs, Amelio Group and Graham construction and BIMPM graduates tend to work in the digital construction sector for companies like MACE, AECOM, McAdam Design and Chandos Construction.

### What advice would you give to someone who is interested in building a career in this sector?

Critical analysis, design thinking and team-based multidisciplinary working characterise architectural practice. If you are interested in complex problem solving and applied testing through design work, then architectural education can offer you a rewarding experience that will help you build these skills; ready to embark upon the career of your choice.

Consider your interests and passions. More than ever, our societies need expert Architects to address and create solutions to the problems and challenges we all face – climate change, public safety, increasing urbanisation, and health and well-being. If you are interested in the built environment and the challenges we currently face, including the climate emergency, productive landscapes, advanced digital communications and intelligent space, studying architecture would enable you to develop your interest in these areas and establish a career trajectory with impact. Queen's has an established research trajectory in construction and benefits from a staff body with diverse interests that can support you with this. Our goal is to enable students to pursue their own interests and develop individual career paths based on emerging challenges and embracing the range of disciplines and fields involved in the construction sector.

**More than ever, our societies need expert Architects to address and create solutions to the problems and challenges we all face - climate change, public safety, increasing urbanisation, and health and wellbeing.**



**QUEEN'S  
UNIVERSITY  
BELFAST**

### What advice would you give in relation to subject selection, for those considering a career in Architecture?

We believe you should make subject selections based on what you enjoy and what challenges you in a rewarding way. Many people assume that if they have not studied art, physics and mathematics, they are not able to study Architecture, but this is not the case. At Queen's we embrace the breadth of the profession and encouraging students from a myriad of academic backgrounds and interests to join the course. We know that this diversity makes our course, and the profession, much stronger. A small sample of our students shows many different combinations of study at A Level:

Art & Design	Biology	History
Art & Design	ICT	Moving Image Arts
Art & Design	Photography	Religion
Biology	Business	Technology & Design
Business	Music	Sociology
Drama & Theatre	Economics	Geography
French	Geography	Maths
Geography	Maths	Technology & Design
Maths	Moving Image Arts	Physics
BTEC, A Levels in:	ICT	Maths
BTEC, A Levels in:	Art & Design	Religion
HNC, A Levels in:	ICT	Technology & Design

### What kind of postgraduate courses are on offer for those interested in alternative careers in design and construction?

We offer a range of postgraduate courses for those interested in alternative careers in design and construction:

**MSc Advanced Architecture** is a one year Master's degree which offers the opportunity to explore your interests in the built environment and to work both within and beyond the realm of traditional architectural practice.

**MSc Building Information Modelling and Project Management** examines the application of management methods, including BIM, to design, engineering and construction problems. Modules within the course examine the potential of industry 4.0 to disrupt existing construction practice. This one-year full time / two-year part time Masters programme is also available as a **Higher Level Apprenticeship (HLA)** and equips students with the ability to plan, monitor and control construction projects by integrating technical knowledge with leadership, commercial and managerial skills.

**MSc Construction and Project Management** is designed for anyone involved with the built environment. The core modules cover management, procurement and technology-related subjects to give a foundation in management principles. Optional modules provide the opportunity to compliment this broad understanding of environmental issues with specialist expertise.





**QUEEN'S  
UNIVERSITY  
BELFAST**

**MSc/ MLA Future Urbanism** develops, critiques and communicates ideas of place, environment, culture, technology and sustainability to explore the limits of contemporary and future lived space. The course is open to anyone interested in design thinking, application and testing from the fields of landscape architecture, architecture, urbanism, digital futures, environments and policy. This one year Masters (available as an MSc or MLA for those with the requisite Landscape Architecture qualifications) will be exploring globally relevant issues and urban challenges through project based studio work.

## Planning at QUB

### What is planning?

Planning is concerned with the effective and sustainable organisation and design of our towns and cities and the protection of our natural environments. As such, planning has always had an important focus on public health and more recently, has a pivotal role to play in our society's adaptation to and mitigation of climate change, overseeing the development of more sustainable communities. This will be a major priority of the profession in the decades to come.

Planning has always had an important focus on public health and more recently, has had a pivotal role to place in our society's adaptation to and mitigation of climate change, overseeing the development of more sustainable communities.

### What Planning courses does QUB offer at undergraduate/postgraduate level?

There are several higher education options in Planning at Queen's. At an undergraduate level, there are two pathways, the first is **BSc in Planning, Environment and Development**, our original 3-year pathway, or a 4-year option **MPlan in European Planning**, which includes a final year of study with a European university partner (including locations in Sweden, Holland, and France, all taught in English). Both of these pathways can include an optional work placement year if desired. Direct entry to Level 2 of our BSc programme is also available to those completing a relevant Higher National Diploma. Both of our courses are fully accredited by the **Royal Town Planning Institute** and the **Royal Institute of Chartered Surveyors**.

At postgraduate level, **MSc City Planning and Design** offers an enhancement for those completing one of our undergraduate courses, or for those with a particular interest in planning for sustainable cities and urban design. This programme is accredited by **RICS** as a standalone qualification and by the RTPI if the student has a partially-accredited undergraduate degree. Alternatively, the **MSc Planning and Development** programme offers a unique conversion opportunity for students with any degree qualification or relevant experiential learning. This programme is fully accredited by the RTPI and RICS as a standalone qualification.

We also are regularly recruiting applicants for our PhD opportunities which are available for enquiry via our [QUB Research Studentships website](#)



**QUEEN'S  
UNIVERSITY  
BELFAST**

### What kinds of careers opportunities can these Planning courses lead to?

Many of our graduates progress to work within public sector councils in Planning departments, where in particular the reorganisation of councils in Northern Ireland has led to new opportunities for Planning in the local context. Others choose to work in private sector consultancies, assisting with multi-disciplinary built environment projects in Ireland, the UK and further afield. Others progress to work in project management, conservation, transport, research and policy agencies, third sector environmental organisations, and community development.

### What advice would you give to anyone considering a career in Planning?

For anyone interested in developing a career in Planning, here are a few tips:

- ▶ **Attend a Planning Committee at your local council** - here you will see first-hand some of the planning decisions being made in your area. Details of these can be found on your local council website and are open to the public to attend and observe (also sometimes conducted online).
- ▶ **Consider a work placement opportunity** - this is the best way to see the day-to-day of planners and understand their varied activities.
- ▶ **Look at the towns and cities around you with an inquiring eye** - how could they be improved economically, socially, spatially, environmentally? Visit different places when you can and see how the built environment looks elsewhere.

Finally, if you are interested in the bigger picture of society, in making places better and healthier for everyone, if you are concerned about how we respond to the issues of climate change in our towns and cities, then there is something to interest you in the profession of Planning. You can find out more about the profession on the [RTPI website](#)

## Civil, Structural and Environmental Engineering at QUB

### What do the Civil, Structural and Environmental Engineering degree pathways at QUB entail?

Civil Engineering is a broad discipline that deals with the very infrastructure of society, from our bridges to our water and energy resources and our roads. QUB degree programmes are concerned with the planning, design, construction, sustainability, management and maintenance of this infrastructure.

You will have the opportunity to tailor your studies according to your skills and interest after a common first year with our three complementary pathway programmes:

- ▶ **Civil Engineering**
- ▶ **Structural Engineering with Architecture**
- ▶ **Environmental and Civil Engineering**



**QUEEN'S  
UNIVERSITY  
BELFAST**

QUB pathway options offer you the flexibility to choose the right direction for your future career and include **Civil/Environmental/Structural Engineering with a Year in Industry**, which incorporates a placement year with a top employer. There are further **opportunities to work or study abroad** through the International Association for the Exchange of Students for Technical Experience (IAESTE), Erasmus and Study USA exchange programmes. There are two honours degree structures available in Civil Engineering: **BEng** and **MEng**, along with a MEng honours degree in either Environmental and Civil Engineering, or Structural Engineering with Architecture. Many of the elements of the BEng are in common with the MEng programme, and you'll have the opportunity to transfer between the two pathways, subject to meeting the appropriate programme requirements at the end of Stage Two.

However you choose to specialise, you'll be tackling some of the biggest challenges of the modern world, such as achieving sustainable living in an increasingly urbanised society. As the demands on resources like water, energy and land increase, there is a strong need for qualified Civil Engineers with the relevant technical skills but who also possess an ethical awareness of the environmental impact of the projects they undertake.

Civil Engineering at Queen's is an academic partner of the Institution of Civil Engineers, and our degrees are accredited by the **Institution of Civil Engineers**, the **Institution of Structural Engineers**, the **Chartered Institution of Highways and Transportation**, and the **Institute of Highway Engineers**.

The BEng degree is accredited as partially satisfying the educational base for a **Chartered Engineer (CEng)**. A programme of accredited Further Learning will be required to complete the educational base for CEng. All Queen's MEng degrees are accredited as fully satisfying the educational base for a Chartered Engineer (CEng).

### **What career options do these courses open up for graduates?**

QUB graduates can not only choose from a range of rewarding and challenging careers in civil engineering, but are also sought after in accountancy, commerce, education and research.

All major building projects require structural engineers for concept, design and construction. They complement the expertise of architects and, with their broad knowledge of structures, materials and services, Structural Engineering with Architecture graduates are ideally suited to this role. They may also expect to find employment in the expanding area of civil engineering, building management, maintenance and refurbishment.

The project management and communication skills acquired on our courses can be transferred to a wide-range of exciting career fields. QUB graduates are also to be found in many other areas of employment where the skills and discipline of evaluating facts, decision-making and management have provided them with the basis for rewarding and interesting careers.





**QUEEN'S  
UNIVERSITY  
BELFAST**

Further study is also an option open to graduates, who can choose from several Master's programmes as well as a comprehensive list of research topics.

For more information about Civil, Structural and Environmental Engineering courses at QUB, please visit:

[QUB Civil and Structural Engineering](#)

### **What advice would you give to anyone considering a career in Civil Engineering?**

Civil Engineers help our modern society function as we know it today; from providing fresh drinking water at the turn of a tap to connecting communities through roads, tunnels and bridges. It is extremely diverse with opportunities for everyone.

**To determine if this is a path you want to follow it is worth reflecting on what you enjoy and did for fun as a child. Did you reach for Lego, build tree forts and other creations? If so, then read on...**

**There is a great shortage of civil and structural engineers and so opportunities for experience are plentiful.** Most employers will gladly welcome prospective students to encourage more people to enter the profession. Approach them and ask; they will be glad to hear from you, whether they are contractors (the people doing the building work on the ground) or consultants (who carry out much of the design and analysis work in offices). There are also many other categories of employers, from the public service, suppliers and specialists.



## **The Open University - Construction course options (delivered in NI FE colleges)**

**The OU validate the following higher education courses, which are delivered by local further education colleges:**

### **Foundation Degree and HLA in Digital Construction – Southern Regional College (SRC)**

Digital developments over the last decade, such as Building Information Modelling (BIM) have had a significant impact on the Construction sector. As such, digital skills, as well as technical knowledge, are needed to function effectively in the modern construction industry. This course aims to equip the student with these skills and knowledge and facilitate progression to employment within the construction sector, or to further study on degree courses in areas such as Construction Management, Quantity Surveying, Site Management and Project Management (please check relevant university websites for details of entry requirements). More information on the course and entry criteria can be found here: [Foundation Degree in Digital Construction Higher Level Apprenticeship](#)

### **BSc (Hons) Construction Engineering and Management (Top Up) - South West College**

South West College offers the BSc (Hons) Construction Engineering and Management (Top Up), validated by The Open University.

The duration of the top-up degree, following successful completion of a related Foundation Degree, is 1 Year Full Time or 2 Years Part Time.

The BSc (Hons) Construction Engineering and Management (top-up) course covers topics such as sustainable construction methods, project management and building design, performance and regulation. It aims to produce graduates with the relevant competencies to undertake roles within one of the many disciplines of construction engineering and construction management, including as professional and competent construction managers and engineers equipped with industry relevant technical and managerial skills.

Upon successful completion of the BSc Hons in Construction Engineering & Management programme, graduates may consider entering into employment within the construction industry or continuing to study by applying for a place on a post-graduate programme i.e. MSc. You can find more information on the course on the SWC website - [South West College BSc Hons Construction Engineering and Management \(top-up\) validated by The Open University](#)

**The Open  
University**

## The Open University – Construction course options

### Foundation Degree and BEng (Hons) Building Services with Sustainable Energy (Top Up) – South West College (SWC)

South West College (SWC) offers the Foundation Degree and BEng (Hons) top-up in Building Services with Sustainable Energy, validated by The Open University.

Embarking upon a career in Building Services with Sustainable Energy can open a wide variety of career choices, for example, a career path relating to the mechanical, electrical or a renewable engineering aspect of a building envelope. Building Services Engineers also have a growing role in the deployment of renewable energy systems, sustainability and energy efficiency in buildings. You will be playing a key role in delivering a low carbon environment which will aid in combating climate change and fossil fuel depletion.

The foundation degree covers topics such as: Building Fabric & Energy Conservation; Mathematics & Structures; CAD & Intro to BIM; Building Services (Domestic); Renewable Energy Technologies; Building Services For Commercial Projects and Management & Contracts. This course can lead directly to the BEng (Hons) top up course in Building Services with Sustainable Energy, also validated by The OU, or, alternatively, into employment.

You can find more information on the Foundation Degree on the SWC website: [SWC Foundation Degree Building Services with Sustainable Energy, validated by The Open University](#)

The BEng (Hons) Building Services with Sustainable Energy top-up course covers topics such as Green Building Design, Project Management and HVAC (Heating, Ventilation and Air Conditioning). The aim of the BEng (Hons) Building Services with Sustainable Energy programme is to produce graduates with the relevant competencies to undertake roles within one of the many disciplines of Mechanical and Electrical Engineering and Energy, including as professional and competent project managers and engineers equipped with industry relevant technical and managerial skills.

Upon successful completion of the BEng in Building Services with Sustainable Energy programme, graduates may consider entering into employment within the mechanical, electrical or energy industries or continuing to study by applying for a place on a post-graduate programme i.e. MSc. You can find more information on this course on the SWC website: [BEng \(Hons\) Degree in Building Services with Sustainable Energy \(1 year top-up\) \(validated by The Open University\)](#)

### OpenLearn Level 3 courses

The Open University (OU) offer the following OpenLearn Level 3 free courses, which are relevant to construction and structural engineering:

[Introduction to structural integrity](#)  
[Tay Bridge disaster](#)





## Pathways into Construction careers in NI

There are a number of entry routes available in Northern Ireland for those interested in beginning a career in the Construction sector. Which route is best for each individual will depend on a number of factors, such as specific career goal, preferred learning style, etc.

Please check employer websites for further details of accepted/desirable qualifications. For more information on possible entry routes into your desired career, please check out the [online careers support tools](#) on the [NI Direct careers page](#)

Overleaf you will find information on local Construction-related courses. **It should be noted that course provision may be subject to change, please check with course provider for the most up-to-date guidance on course options and entry criteria.**

### Qualifications – what the different levels mean

Qualifications are grouped together into levels to show how they compare and what other qualifications they can lead to. You can find out more about this in [Qualifications: what the different levels mean](#)

The mapping tool overleaf highlights programmes available at local colleges of further and higher education and articulation routes through the course levels.

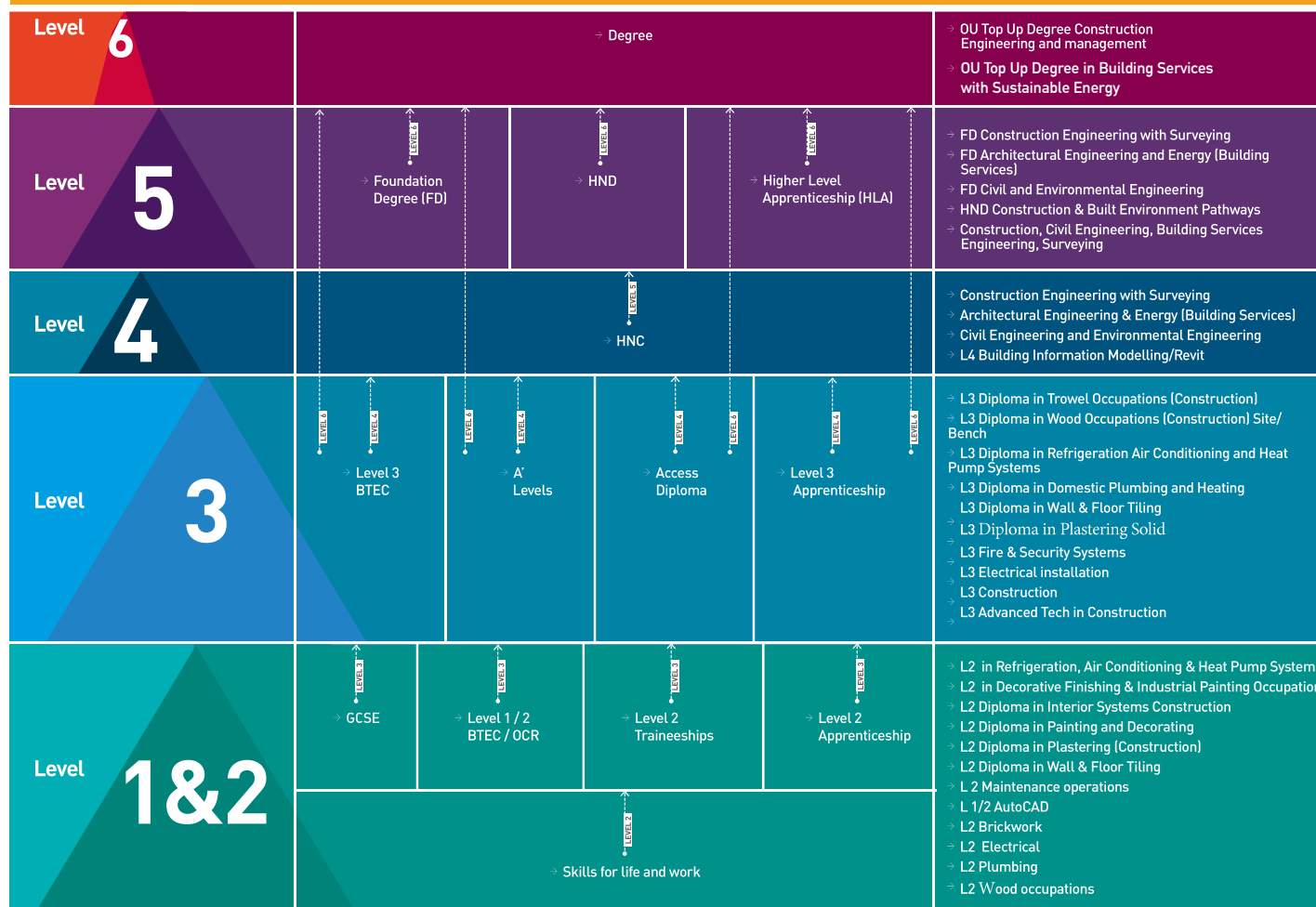
### Contact a Careers Adviser

If you would like to talk through your options with a careers adviser, please [get in touch](#)





## Further Education: Construction Qualification Pathways



### Green technology courses coming soon...

With the growing focus on sustainability, the NI FE colleges will be offering a range of green technology programmes (details will be provided on college websites in due course).



## Courses at local colleges of further and higher education

**Please note course provision is subject to change, please check with your local college for the most up-to-date information.**

### Skills for Life and Work programme

Entry Level/Level 1 Skills for Life and Work programme was introduced in September 2021. Training available includes a range of different pathways under the Construction vocational area, delivered along with employability, personal development and Essential Skills qualifications tailored to the needs of each participant. Please contact your local [Careers Service for more information](#)

### Traineeships (Level 2 full-time programme)

If you are aged 16 years old or over and not currently in employment or working within your chosen occupational area, the traineeship programme could be for you. Traineeships were introduced in September 2021 in local further education colleges, including in the following construction-related areas: **brickwork; carpentry and joinery; electrical installation; plastering and dry wall lining; plumbing; refrigeration; floor and wall tiling; painting and decorating; plant maintenance.**

You can find more information, such as the types of traineeships available in each college and how to apply on the [Traineeships webpage](#)

### Apprenticeships

Please note, if you are interested in becoming an apprentice under the Apprenticeships programme or the Higher Level Apprenticeships programme, you must be in a job or have found an employer who is willing to take you on as an apprentice. Finding someone to take you on as an apprentice is really like finding any other job. You can, for example, [search for apprenticeship opportunities](#) online; contact your local [Jobs and Benefits office](#), search [JobCentre Online](#); search newspapers; look for vacancies on employer or recruitment websites; contact employers yourself (you should make them aware that you want to start an apprenticeship under the Apprenticeships programme). You can also contact your local college/training provider, who may be aware of vacancies.

You can find out more about apprenticeships on the [Apprenticeships webpage](#)







**Course provision at local colleges of further and higher education**

Further Education College Course provision			Mode of Attendance	SERC	SRC	NWRC	NRC	BMET	SWC
<b>Level 2</b>	<b>FE</b>	2D Computer Aided Design	PT	✓	✓	✓	✓	✓	✓
		Computer Aided Design Parametric modelling	PT			✓	✓	✓	✓
		Brickwork/Bricklaying	PT	✓					
		Carpentry and Joinery (bench/site)	PT	✓		✓			
		Wall and Floor Tiling	PT			✓			
		Refrigeration, Air Conditioning and Heat Pump Systems	PT	✓					
		Hydrocarbon and Refrigeration, Air Conditioning and Heat Pump Sysyems	PT	✓					
		Plumbing and Heating	PT	✓		✓			
		Plastering	PT						
		Maintenance Operations	FT	✓					
		Painting and Decorating	PT		✓	✓			
		NVQ Diploma in Interior Systems (Dry lining)	PT						✓
		Trowel Occupations	PT			✓			✓



Further Education College Course provision			Mode of Attendance	SERC	SRC	NWRC	NRC	BMET	SWC
<b>Level 2</b>	<b>Apprenticeships</b>	Bricklaying	FT	✓	✓	✓	✓	✓	✓
		Carpentry and Joinery (Bench/site)	FT	✓	✓	✓	✓	✓	✓
		Construction Plant Maintenance	FT	✓					
		Plastering	FT	✓	✓				✓
		Plumbing	FT	✓	✓	✓	✓	✓	✓
		Refrigeration and Air Conditioning	FT	✓					✓
		Painting and Decorating	FT		✓	✓			✓
		Wall and Floor Tiling	FT		✓	✓			
		Interior Systems (Dry lining)	FT						✓
<b>Level 3</b>	<b>FE</b>	Extended Diploma in Construction and the Built Environment (with optional Civil Engineering specialism)	FT				✓		
		Diploma in Construction and the Built Environment (1 A level equivalent)	PT				✓		
		National Extended Diploma in Civil Engineering	FT			✓			✓



Further Education College Course provision			Mode of Attendance	SERC	SRC	NWRC	NRC	BMET	SWC
		National Extended Diploma in Construction and the Built Environment	PT/FT	✓	✓	✓	✓	✓	✓
		National Foundation Diploma in Construction and the Built Environment	PT	✓		✓			✓
		Award in BIM - Revit	PT			✓			
		Carpentry and Joinery	PT			✓		✓	✓
		Diploma in Plumbing Studies (QCF)	PT			✓			
		Refrigeration and Air Conditioning	PT	✓					
		Diploma Domestic Plumbing and Heating	PT/FT	✓				✓	✓
		Diploma Construction and the Built Environment (equiv 2 A Levels)	FT	✓					
		Diploma in Bricklaying	PT/FT	✓				✓	✓
		National Diploma in Civil Engineering	PT	✓	✓				
		2D Computer Aided Design	PT		✓		✓		
		National Diploma in Civil Engineering and Dip for Technicians (ICE)	PT	✓					
		Certificate in CO2 Refrigeration Systems Service and Maintenance	PT	✓					





Further Education College Course provision			Mode of Attendance	SERC	SRC	NWRC	NRC	BMET	SWC
	<b>Apprenticeships</b>	Civil Engineering	FT	✓	✓	✓	✓	✓	✓
		Brickwork/Bricklaying	FT	✓	✓	✓		✓	✓
		Painting and Decorating	FT		✓	✓			✓
		Wall and Floor Tiling	FT		✓				
		Plumbing (Domestic/Gas Fired Water and Central Heating appliances)	FT	✓	✓	✓		✓	✓
		Electrical Installation (Electrotechnical) Apprenticeship	FT	✓	✓	✓	✓	✓	✓
		Carpentry and Joinery	FT	✓	✓	✓		✓	✓
		Air Conditioning	FT	✓					✓
		Refrigeration Apprenticeship	FT	✓					✓
		Construction Plant Maintenance	FT	✓					
<b>Level 4</b>	HE	HNC Construction and the Built Environment	PT	✓	✓		✓	✓	
		HNC Construction and the Built Environment	FT	✓		✓			
		NOCN Level 4 Digital Surveying	PT						✓
		Passivhaus Designer	PT						✓
		Passivhaus Tradesperson	PT						✓
		NOCN Level 4 3D CAD / BIM / Revit	PT						✓



Further Education College Course provision			Mode of Attendance	SERC	SRC	NWRC	NRC	BMET	SWC
		HNC Construction and the Built Environment - Civil Engineering (also offered as a HLA)	PT	✓	✓	✓			
		HNC Construction and the Built Environment - Building Services Engineering (also offered as a HLA)	PT	✓	✓				
		HNC Construction and the Built Environment - Surveying (also offered as a HLA)	PT	✓					
		HNC Construction and the Built Environment (Construction - Management) (also offered as a HLA)	FT	✓					
		Certificate in Collaboration in Building Information Modelling/ Management	PT		✓				
		The Chartered Institute of Building (CIOB) Level 4 Certificate in Construction Site Management	PT			✓			
		Certificate 3D Building Modelling using Revit	PT		✓				
		Computer Aided Design and Manufacture	PT	✓					

**Higher Level Apprenticeships (HLAs)**

Higher Level Apprenticeships offer the opportunity to gain quality training and a recognised higher qualification while in paid employment. Higher Level Apprenticeships (HLAs) currently offer qualifications from Level 4 to Level 7 (Master’s degree). The majority are at Level 5 (Foundation degree or equivalent). The length of a Higher Level Apprenticeship will vary depending on the programme you chose, but will be a minimum of two years. Higher Level Apprenticeships are available through the further education colleges and universities in Northern Ireland, in over 20 occupational areas, including Built Environment and Civil Engineering.

For more information on Higher Level Apprenticeships, including eligibility criteria and details of qualifications/where they’re available, [Higher Level Apprenticeships](#)

**Foundation Degrees/HNDs**

Level 5	HE	Foundation Degree Building Services with Sustainable Energy (Validated by The Open University)	FT						✓
---------	----	--	----	--	--	--	--	--	---



Further Education College Course provision			Mode of Attendance	SERC	SRC	NWRC	NRC	BMET	SWC
		Ulster University Foundation Degree in Construction Engineering with Surveying	FT/PT				✓	✓	✓
		Ulster University Foundation Degree in Engineering in Civil Engineering	FT/PT					✓	✓
		Foundation degree in Digital Construction (validated by the Open University) - also available as a Higher Level Apprenticeship	FT		✓				
		Ulster University Foundation Degree in Architectural Technology	FT					✓	
		Foundation Degree Property Planning and Housing (validated by Ulster University)	FT					✓	
		BTEC HND Construction and the Built Environment (Construction-Management) (also offered as a HLA)	FT	✓					
<b>Level 6</b>	HE	BSc (Hons) Degree in Building Services with Sustainable Energy (Top-up) validated by The Open University	FT - 1 year PT - 2 years						✓
		BSc (Hons) Degree in Construction Engineering & Management (Top-up) validated by The Open University	FT - 1 year PT - 2 years						✓





**Construction Higher Education Provision in NI**

**Undergraduate course options**

**QUB Undergraduate courses**

<b>Course title</b>	<b>Course duration</b>
<b>Architecture BSc</b> UCAS code: K100	3 academic years (full-time)
<b>Civil Engineering BEng</b> UCAS code: H200	3 academic years (full-time)
<b>Civil Engineering MEng</b> UCAS code: H202	4 academic years (full-time)
<b>Civil Engineering Sandwich BEng</b> UCAS code: H204	4 academic years (full-time)
<b>Civil Engineering Sandwich MEng</b> UCAS code: H205	5 academic years (full-time)
<b>Environmental and Civil Engineering MEng</b> UCAS code: H252	4 academic years (full-time)
<b>Environmental and Civil Engineering Sandwich MEng</b> UCAS code: H255	5 Academic Years (Full-time)
<b>European Planning MPlan</b> UCAS code: K490	4 Academic Years (Full-time)
<b>Planning, Environment and Development BSc</b> UCAS code: K430	3 Academic Years (Full-time)



Course title	Course duration
<b>Structural Engineering with Architecture MEng</b> UCAS code: H2K1	4 Academic Years (Full-time)
<b>Structural Engineering with Architecture Sandwich MEng</b> UCAS code: H2KC	5 Academic Years (Full-time)



## Ulster University undergraduate courses

### Belfast School of Architecture and the Built Environment

Course title	Course duration	Campus
<b>Architectural Engineering BEng Hons</b> UCAS code: J1H1	4 years full-time (inc. work placement in Year 3)	Belfast campus
<b>Architectural Engineering BEng Hons</b> <i>Part-time</i>	6 years part-time	Belfast campus
<b>Architectural Technology and Management BSc Hons</b> UCAS code: K235	4 years full-time (inc. work placement in Year 3)	Belfast campus
<b>Architecture BA Hons</b> UCAS code: K100	3 years full-time (or 4 years if student chooses to undertake international academic study in Year 3)	Belfast campus
<b>Building Surveying BSc Hons</b> UCAS code: K231	4 years full-time, including work placement)	Belfast campus
<b>Building Surveying BSc Hons</b> <i>Part-time</i>	6 years part-time	Belfast campus
<b>Civil Engineering BEng Hons/MEng (Hons)</b> UCAS code: H200	BEng – 4 years full-time (Year 3 includes work placement) MEng – 5 years full-time? (Year 3 includes work placement)	Belfast campus
<b>Civil Engineering BEng Hons/MEng (Hons)</b> <i>Part-time</i>	BEng – 6 years part-time, MEng - 8 years part-time	Belfast campus
<b>Civil Engineering BEng Hons/MEng (Hons) (HLA)</b>	BEng – 6 years part-time, MEng - 8 years part-time <i>(requires relevant employment – see university website/contact university for further info)</i>	Belfast campus
<b>Civil Engineering BSc Hons</b> UCAS code: H202	4 years full-time (inc. work placement in Year 3)	Belfast campus





Course title	Course duration	Campus
<b>Construction Engineering and Management BSc Hons</b> UCAS code: K220	4 years full-time (inc. work placement in Year 3)	Belfast campus
<b>Construction Engineering and Management BSc Hons</b> <i>Part-time</i>	5 years part-time	Belfast campus
<b>Construction Engineering and Management (HLA) BSc Hons</b>	5 years part-time <i>(requires relevant employment – see university website/contact university for further info)</i>	Belfast campus
<b>Energy BSc Hons</b>	4 years full-time (inc. work placement in Year 3)	Belfast campus
<b>Energy BSc Hons</b> <i>Part-time</i>	6 years part-time	Belfast campus
<b>Planning, Regeneration and Development BSc/MSci</b> UCAS code: KK42	Can be completed as a 3 year full-time (BSc) course or a 4 year full-time (Integrated Master's - MSci). The first three years of both courses are identical; the Msci course has an optional placement year	Belfast campus
<b>Quantity Surveying and Commercial Management BSc Hons</b> UCAS code: K240	4 years full-time (inc. work placement in Year 3)	Belfast campus
<b>Quantity Surveying and Commercial Management BSc Hons</b> <i>Part-time</i>	6 years part-time	Belfast campus
<b>Quantity Surveying and Commercial Management (HLA) BSc Hons</b>	6 years part-time <i>(requires relevant employment – see university website/contact university for further info)</i>	Belfast campus



Course title	Course duration	Campus
<b>Real Estate BSc Hons</b> UCAS code: K291	4 years full-time (inc. work placement in Year 3)	Belfast campus
<b>Real Estate BSc Hons</b> <i>Part-time</i>	6 years part-time	Belfast campus



## Postgraduate courses

### QUB – Postgraduate courses

#### Postgraduate taught courses

Course title	Course duration
<b>Advanced Architectural Design</b> MSc	1 academic year (full-time)
<b>Architecture</b> MArch	2 academic years (full-time)
<b>Building Information Modelling Project Management</b> MSc	1 academic year (full-time), 2 academic years (part-time)
<b>City Planning and Design</b> MSc	1 academic year (full-time) 2 academic years (part-time)
<b>City Planning and Design</b> PgCert	1 academic year (full-time) 2 academic years (part-time)
<b>Construction and Project Management</b> MSc	1 academic year (full-time), 2 academic years (part-time)
<b>Construction and Project Management with Industrial Internship</b> MSc	2 academic years (full-time)
<b>Future Landscape Architecture</b> PgCert	1 academic year (full-time)
<b>Future Urbanism</b> MSc	1 academic year (full-time)
<b>Future Urbanism</b> MLA	1 academic year full-time
<b>Planning and Development</b> PgCert	1 academic year (full-time) 2 academic years (part-time)
<b>Planning and Development</b> MSc	1 academic year (full-time), 2 academic years (part-time)
<b>Professional Practice in Architecture</b> PgCert	1 academic year (part-time)





**QUB Higher Level Apprenticeships (Level 7)**

Course title	Course duration
<b>Building Information Modelling Project Management</b> Higher Level Apprenticeship MSc	2 academic years (part-time) – requires relevant employment – see university website/contact university for further info
<b>Construction and Project Management</b> Higher Level Apprenticeship MSc	2 academic years (part-time) – requires relevant employment – see university website/contact university for further info
<b>City Planning and Design</b> Higher Level Apprenticeship MSc	2 academic years (part-time) – requires relevant employment – see university website/contact university for further info
<b>Planning and Development</b> Higher Level Apprenticeship MSc	2 academic years (part-time) – requires relevant employment – see university website/contact university for further info

**QUB Postgraduate research**

Course title	Course duration
<b>Architecture</b> MPhil	2 academic years
<b>Architecture</b> PhD	3 academic years
<b>Civil Engineering</b> PhD	3 academic years
<b>Planning</b> MPhil	2 academic years
<b>Planning</b> PhD	3 academic years

Further postgraduate research opportunities are available using the **Opportunities** tab and **Supervisors** tab in the [A-Z of Research Opportunities](#)



## Ulster University Postgraduate courses

Course title	Course duration	Campus
<b>Architecture</b> MArch	March – 2 years full-time	Belfast campus
<b>Civil and Infrastructure Engineering</b>	MSc - 1 year full-time/ 3 years part-time, with optional exit awards PgDip – can usually be completed on a part-time basis in 2 years PgCert – can usually be completed on a part-time basis in 1 year	Belfast campus
<b>Construction Management</b>	MSc - 1 year full-time/ 3 years part-time, with optional exit awards PgDip – can usually be completed on a part-time basis in 2 years PgCert – can usually be completed on a part-time basis in 1 year	Belfast campus
<b>Digital Construction and BIM</b> [subject to university approval]	MSc - 1 year full-time/ 3 years part-time, with optional exit awards PgDip – can usually be completed on a part-time basis in 2 years PgCert – can usually be completed on a part-time basis in 1 year	Belfast campus
<b>Energy Storage</b>	MSc - 1 year full-time/ 3 years part-time, with optional exit awards PgDip – can usually be completed on a part-time basis in 2 years PgCert – can usually be completed on a part-time basis in 1 year	Belfast campus
<b>Fire Safety Engineering</b>	MSc - 1 year full-time/ 3 years part-time, with optional exit awards PgDip – can usually be completed on a part-time basis in 2 years PgCert – can usually be completed on a part-time basis in 1 year	Belfast campus
<b>Planning and City Resilience</b>	MSc - 1 year full-time/ 3 years part-time, with optional exit awards PgDip – can usually be completed on a part-time basis in 2 years PgCert – can usually be completed on a part-time basis in 1 year	Belfast campus



### Ulster University Postgraduate courses

Course title	Course duration	Campus
<b>Real Estate</b>	MSc - 1 year full-time/ 3 years part-time, with optional exit awards PgDip – can usually be completed on a part-time basis in 2 years PgCert – can usually be completed on a part-time basis in 1 year	Belfast campus
<b>Renewable Energy and Energy Management</b>	MSc - 1 year full-time/ 3 years part-time, with optional exit awards PgDip – can usually be completed on a part-time basis in 2 years PgCert – can usually be completed on a part-time basis in 1 year	Online

### Ulster University Postgraduate research courses

Course title	Course duration	Campus
<p><b>Master of Philosophy</b> <b>Doctor of Philosophy</b></p> <p>Opportunities are available for doctoral study, supervised across all disciplines linked to the Belfast School of Architecture and the Built Environment.</p> <p>For further information, including details of funded opportunities, please refer to the <a href="#">Ulster University Doctoral College website</a></p>	<p><b>Master of Philosophy</b> Normally 2 years full-time</p> <p><b>Doctor of Philosophy</b> Normally 3 years full-time For part-time options and duration of study please contact the university</p>	Belfast campus





## Useful websites for Construction Careers research

### NI websites

---

[Construction Industry Training Board Northern Ireland \(CITBNI\)](#)  
[CITB Women in Construction Network Northern Ireland](#)  
[Construction Employers Federation](#)  
[Federation of Master Builders](#)  
[Electrical Training Trust \(ETT\) NI](#)  
[Royal Society of Ulster Architects](#)  
[Health and Safety Executive NI](#)  
[Women's Tec](#)  
[Women in Business](#)  
[Pulsar](#)

### General information – UK-wide websites

---

[Go Construct](#)  
[Passive House Institute](#)  
[Green Jobs](#)  
[Neon Futures](#)  
[World Skills UK](#)

### Professional Bodies/representative organisations

---

[Royal Institute of British Architects \(RIBA\)](#)  
[Landscape Institute](#)  
[Chartered Institute of Architectural Technologists \(CIAT\)](#)  
[The Institution of Engineering and Technology](#)  
[Enginuity](#)  
[Chartered Institute of Building \(CIOB\)](#)  
[Chartered Association of Building Engineers](#)  
[Chartered Institution of Building Services Engineers \(CIBSE\) Northern Ireland](#)



**Professional Bodies/representative organisations** *(continued)*

Institution of Civil Engineers (ICE)

Institution of Structural Engineers (IStructE)

Royal Institution of Chartered Surveyors (RICS)

Royal Town Planning Institute

Chartered Institute of Housing

Institute of Carpenters (IOC)

Glass and Glazing Federation (GGF)

National Federation of Roofing Contractors

The Tile Association

Institute of Workplace and Facilities Management

Painting and Decoration Association

SNIPeF Plumbing and Heating Association

Construction Industry Council (CIC)

Construction Plant Hire Association



**Feedback**

The COIU team welcomes your feedback on the content of this bulletin, to help inform future bulletins.

If you have any comments, please email the mailbox - [COIU@economy-ni.gov.uk](mailto:COIU@economy-ni.gov.uk)

**Please note, the Department is not responsible for the content of external websites. Information contained in this bulletin is correct at time of publishing, however, may be subject to change.**