Horizon Business Centre, Veridion Park, Unit 28 Alder Close, Erith, Kent, DA18 4AJ

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# HIGHER APPRENTICESHIPS WITH BUXTON & McNULTY MECHANICAL SERVICES LIMITED















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# **COMPANY STATEMENT**

Buxton & McNulty Mechanical Services was formed in March 2003. The company became incorporated on 4th April 2005.

The company was formed to provide mechanical services. We specialise in pipe work installations covering public health, heating, chilled water, condensate, gas and fuel services. We offer on-site welding and have a fabrication shop where pipe can be made to measure and delivered to site. We have extensive experience and have undertaken many projects working on commercial properties, residential, energy centres, hospitals, schools and prisons.

Over the last few years our company has expanded steadily through repeat business. We have a 100% repeat business record and feel that this is due to the commitment shown to each and every project we undertake. It is our stated policy to satisfy the requirements of our customers in any way that we can. This is achieved by operating a comprehensive, coordinated quality system which ensures that the quality of all products, processes and services offered by the company are consistent. We are committed to ensuring that the system is effective in achieving quality and satisfying customers both now and in the future.

In January 2010 we joined Achilles Building Confidence and achieved accreditation. Achilles' rigorous procedure includes a broad range of strict criteria pertinent to Health, Safety and Environmental practices which are fully assessed and audited yearly in order to provide customers with benchmarked performance indicators.

Our accreditation on this programme further reaffirms our dedication to providing a quality service to all our customers, in conjunction with our ongoing commitment to being a safe, socially and environmentally responsible service provider.







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# BECOME A HIGHER APPRENTICE

- EARN MONEY WHILE YOU LEARN
- GAIN A NATIONALLY RECOGNISED QUALIFICATION
- GAIN VALUABLE WORK EXPERIENCE
- ON THE JOB TRAINING

#### **About Us**

Buxton & McNulty was incorporated on 4<sup>th</sup> April 2005 to provide Mechanical Services within the Construction Industry. We specialise in pipe work installations covering Public Health, Mechanical and Gas services. We also provide on-site welding and have a fabrication shop where pipe can be made to measure. We have extensive experience and have undertaken many projects working on commercial properties, residential, hospitals, schools and prisons.

Buxton & McNulty can offer apprenticeships in the following disciplines:-

- Project Management
- Mechanical Engineer
- Quantity Surveyor

If you are interested in becoming an apprentice in one of the above disciplines please forward your CV and a covering letter to:

admin@buxtonmcnulty.co.uk









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# **APPRENTICESHIP TIMELINE**

Step 1 Send CV & covering letter to

admin@buxtonmcnulty.co.uk

Step 2 Interview

Interviews will be held between March & July

Step 3 Confirmation of Apprenticeship – July

Step 4 Enrol in College - July

Step 5 College Course Commences - September

Step 6 Buxton & McNulty Induction - September

Step 7 Apprenticeship 3 month review –January









Company No: 5412731

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# APPRENTICE QUESTIONS AND ANSWERS

# What qualifications will I need?

# **Advanced Apprenticeship**

Plumber / Pipefitter - You will require GCSE Grade 4 or above in Maths, Science and an Engineering-related subject, as well as GCSE Grade 4 or above in English.

# **Higher Apprenticeship**

Junior Engineer - You will require A Levels in Maths, Science and an Engineeringrelated subject at Grade C or above, or a BTEC Level 3 Diploma in Engineering at a minimum of Merit.

# What qualifications will I study as part of the Apprenticeship?

As an Advanced Apprentice you will complete NVQs at Levels 2 and 3, plus a Technical qualification in a relevant subject. Some NVQ's and Technical certificates are combined into a diploma. Where applicable for the role, our best Apprentices go on to study further qualifications such as HNC/HND. If you are on the Higher Apprenticeship you will complete a Level 4 NVQ alongside a level 4 or 5 qualification.

# **How long does the Apprenticeship programme last?**

Between 3 and 4 years. We will discuss your timing plan when you join us.

#### What happens at the end of the Apprenticeship?

We can't guarantee a permanent position when your Apprenticeship ends. However, we are committed to our trainee programmes and every effort is made to find positions for our best Apprentices.

# How can I apply for an Apprenticeship?

Please email a copy of your CV and a covering letter to <a href="mailto:admin@buxtonmcnulty.co.uk">admin@buxtonmcnulty.co.uk</a>



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#### Become a Project manager

Project managers plan and organise resources and people to make sure projects finish on time, stay within budget and meet the requirements of the business. They work in all industries from construction to IT.

If you are good at juggling several tasks at the same time, have excellent 'people' skills and can lead a team, this may be the career for you.

To get into this job, you'll need some experience of working on projects, for example as part of a project support team. Training and qualifications will also help, in particular, PRINCE2 certification.

#### Work activities

As a project manager, it would be your job to plan and manage all kinds of business projects, and make sure they are completed on time, meet the needs of the client and stay within budget.

You could be employed in almost any industry on many different types of project, from introducing a new computer system to overseeing a large building development. Whatever the project, your work would typically include:

- finding out what the client or company wants to achieve
- agreeing the timescales, costs and resources needed
- drawing up a detailed plan and schedule for each stage of the project
- selecting and leading a project team
- negotiating with contractors and suppliers for materials and services
- making sure that each stage is progressing on time, on budget and to the right quality standards
- reporting regularly on progress to senior managers and the client
- managing risks to avoid delays

Part of your work would involve using particular project management methods such as PRINCE2 (PRojects IN Controlled Environments) to break down the project into stages and monitor its progress. You would also use specialised software to help with scheduling, costing, and risk analysis.

#### Working hours and conditions

You would often work standard office hours Monday to Friday, although this can vary according to the industry, and you may need to work longer in order to meet deadlines. You would usually be office-based, but may spend some of your time travelling for meetings and to visit contractors and suppliers. If working on building projects, you would visit construction sites on a regular basis. Some jobs may involve overnight stays away from home.

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#### Income

Salaries depend on experience, the industry and the size and type of project. There may be extra bonuses for meeting deadlines.

Junior project managers normally start on about £25,000 to £30,000 a year. Experienced managers can earn from £30,000 to £50,000 or more.

Figures are intended as a guideline only.

#### **Entry requirements**

There are different ways to become a project manager. Whichever route you take, you will need experience of organising and managing resources and costs.

You can study towards a foundation degree, degree or postgraduate award in business or project management. Courses that include work placements are particularly useful. Alternatively, you can move into project management on the strength of your experience. For example, you might progress after starting out as a member of a project support team, or move up after managing smaller projects in another job.

To work as a project manager, you will normally need experience of applying project management principles and methods. You may also need skills in particular software, for example Microsoft Project or Open Workbench. There are lots of other software packages available and the one you use will depend on the organisation you work for. A knowledge of development processes like 'Agile' will also be useful.

#### **Training and development**

You will usually develop your project management knowledge and skills on the job. If necessary, your employer will provide training in PRINCE2, on project processes like Agile, or using specific project management software. Training may also cover leadership and management skills, and risk analysis.

Your employer may encourage you to work towards professional project management qualifications offered by bodies, such as:

- Association for Project Management (APM)
- Project Management Institute (PMI)
- Chartered Management Institute (CMI).

See each organisation's website for more information about their qualifications and training. Other work-based qualifications include:

- Level 4 Diploma in Project Management
- Level 6 Certificate in Project Management
- Level 7 Diploma in Project and Quality Management.

These contain units on managing schedules, risk, quality control and resources. You can also choose to study part-time for a project management degree or postgraduate qualification while you are working.

If you are involved in project management in the IT industry, particularly working on government contracts, you may gain certification in project management and support through The Chartered Institute for IT.

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#### Skills, interests and qualities

As a project manager, you will need:

- excellent organisational, planning and time management skills
- logical thinking and creative problem-solving ability
- great attention to detail
- good communication and negotiation skills
- understanding of budget control
- the ability to work well with others and lead a team
- a good understanding of business
- technical knowledge relevant to the project
- good IT skills

#### **Opportunities**

You would be employed directly by a company. With experience, you could progress into senior management











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#### **Become a Quantity surveyor**

As a quantity surveyor you would play a key role in a building project, managing the costs from the early design plans, through to the building's completion. You would make sure that projects meet legal and quality standards, and that clients get good value for their money. If you have a good knowledge of construction methods and materials, are well organised and want a professional level job, this job could be ideal for you.

You will need a degree or professional qualification accredited by the Royal Institution for Chartered Surveyors (RICS) to qualify. You may also be to qualify by studying part-time whilst working in as a surveying technician.

#### The work

As a quantity surveyor, you might work on:

- housing and industrial sites
- retail and commercial developments
- roads, rail and waterways
- On most projects, your main responsibilities would be:
- carrying out feasibility studies to estimate materials, time and labour costs
- negotiating and drawing up bids for tenders and contracts
- monitoring each stage of construction to make sure that costs are in line with forecasts
- providing financial progress reports to clients
- advising clients on legal and contractual matters
- acting on clients' behalf to resolve disputes
- assessing the financial costs of new environmental guidelines, such as using sustainable timber

You would use computer software to carry out some of these tasks, and to keep records, prepare work schedules and write reports. You might also deal with the maintenance and renovation costs once buildings are in use.

#### Hours

You would normally work Monday to Friday, 9am to 5pm, although some overtime may be required on evenings or weekends.

Your time would be split between office-based duties and site visits.

#### Income

Starting salaries can be between £20,000 and £25,000 a year. With experience this can rise to between £30,000 and £45,000.

Senior chartered quantity surveyors can earn between £50,000 and £60,000 a year. Figures are intended as a guideline only.

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#### **Entry requirements**

You need a degree or professional qualification accredited by the Royal Institution for Chartered Surveyors (RICS) to qualify as a chartered quantity surveyor. Relevant subjects include:

- surveying
- construction
- civil engineering
- structural engineering

If you are already working in engineering or construction, you could take a part-time, distance learning postgraduate degree while working – many of RICS's accredited postgraduate degrees are available to study in this way.

You could also take an HNC, HND or foundation degree in surveying then start work as a surveying technician. Once working, you could complete further study to qualify as a quantity surveyor.

# Degree apprenticeship

Some employers may offer the opportunity to train on a degree apprenticeship programme. This route allows you to work while you study part-time for a degree in surveying.

# **Training and development**

Once you are working, you should continue to update your knowledge and skills throughout your career. You would normally do this by working towards chartered status with the Royal Institution of Chartered Surveyors (RICS), or with The Chartered Institute of Building's (CIOB) Faculty for Architecture and Surveying.

To qualify for chartered status through RICS, you must complete the RICS Assessment of Professional Competence (APC) while you are working. You will also need at least two years' work experience and will have to pass an interview with a panel of assessors.

If you want to apply for The CIOB's chartered status, you will need an accredited honours degree and two years' relevant work experience.

#### Skills, interests and qualities

To be a quantity surveyor you should have:

- a good knowledge of construction methods and materials
- budget handling skills
- excellent IT and maths skills
- a methodical approach to work
- good organisational skills
- a clear understanding of Building Regulations and other legal guidelines
- excellent communication and negotiating skills
- the ability to work as part of a team

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# **Opportunities**

With experience and professional development, you could progress to project management, consultancy work or self-employment. You could also use your skills to move into some of the other branches of surveying.











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# **Become a Mechanical Engineer**

Mechanical engineers develop and design components and machinery used in many industries like manufacturing, construction, water, power, health and transport. They also manage teams of technicians and craftspeople who carry out installation and maintenance work.

If you are technically minded, good at maths and science, and like solving problems, a professional career in engineering could be a great move for you.

To work as a mechanical engineer you will usually need a foundation degree, HNC/HND or degree in an engineering subject.

#### Work activities

As a mechanical engineer, your day-to-day duties will vary according to the job but could include:

- turning research ideas into technical plans, using computer aided design/modelling (CAD/CAM) programs
- carrying out surveys of mechanical systems and equipment to see if they're working properly
- researching and assessing new products and innovations
- presenting design plans and data to managers and clients
- producing other technical documents for projects
- supporting the contract team when bidding for new work
- overseeing maintenance programmes and quality control
- managing and leading a project team of technicians, designers and other engineering professionals

You could work in a variety of industries and on different projects. For example, you might be involved in renewable energy and the installation of off-shore wind turbines. You could be responsible for making sure the pumps and valves in the water distribution networks deliver clean water to homes and businesses. Or, you may work in healthcare, designing and testing improvements to prosthetic implants to help people with limited mobility.

#### Working hours and conditions

You would normally work 37 to 40 hours a week, although this could increase depending on projects and deadlines. You may be on a shift system, which could include evenings and weekends, depending on your job. Your working environment could vary from a modern, open-plan office to factory production areas and outdoor sites. Depending on the contract, you may have to travel abroad at times.

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#### Income

Starting salaries can be between £22,000 and £26,000 a year. Experienced mechanical engineers can earn between £30,000 and £50,000.

The highest average salaries tend to be paid to engineers working in the oil and gas industry, in advanced manufacturing and those employed by utility companies.

Figures are intended as a guideline only.

#### **Entry requirements**

To work as a mechanical engineer you will normally need a foundation degree, HNC/HND or degree in an engineering subject. Examples include:

- mechanical engineering
- electromechanical engineering
- mechatronics
- engineering (mechanical/manufacturing)

For a degree course you will need at least five GCSEs (grades A-C) and two or three A levels, often including maths and physics. Check with colleges or universities for exact entry requirements, as alternative qualifications may be accepted.

Some courses, such as sandwich degrees, include a year in industry which could be useful when you start applying for work after finishing your course. Alternatively, you could organise your own work placement within a company, for instance during the summer break. You may also be able to get into this career starting off as an engineering technician apprentice with a manufacturing or engineering company. After completing your training, you could then go onto higher-level courses like a HND or degree, or progress to a higher apprenticeship, such as the Level 4 Advanced Manufacturing Engineering Higher Apprenticeship.

#### **Training and development**

You would be expected to keep your knowledge and skills up to date throughout your career. If you have a degree, you may get a place on a graduate training scheme.

It may help your career prospects if you register with a professional body and work towards incorporated or chartered status by taking continuous professional development. For example, the Institution of Mechanical Engineers operates the Monitored Professional Development Scheme (MPDS), which can lead to chartered status over a period of time.

As an incorporated engineer, you would specialise in the day-to-day management of engineering operations. At chartered level, you would have a more strategic role, planning, researching and developing new ideas, and streamlining management methods.

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# Skills, interests and qualities

To be a mechanical engineer you should have:

- excellent communication and presentation skills
- good problem-solving skills and a creative approach for new ideas
- excellent technical knowledge
- good teamworking skills
- the ability to manage projects
- a high level of IT ability, particularly computer aided design
- good commercial awareness
- budgeting skills
- the ability to adapt to changing circumstances
- the ability to work under pressure and to deadlines

#### **Opportunities**

With experience, you could move into project management, specialist research or consultancy. With chartered status, you could become involved in strategic development in a particular sector.













# Building Services Engineering BEng (Hons)

# Overview

BEng (Hons) Building Services Engineering is designed to equip you with the technical, management and communication skills needed to be an effective leader of teams involved in the design of building services and energy conservation in buildings.

# **Employability**

Building service engineers deal with everything from making sure the floodlights at Old Trafford don't cut out halfway through the match to developing homes that can generate their own sustainable sources of gas and electricity. They help buildings to deliver on their potential by working with architects and construction engineers to produce buildings that offer the functionality and comfort we expect, with the minimum impact on our environment. They design the lighting appropriate for the space, the heating, cooling, ventilation and all systems that ensure comfort, health and safety in all types of buildings, residential commercial and industrial.

This course will prepare you for a career in the building services engineering industry in areas such as: design and build, contracting, consultancy, energy management, and facilities management.

The employment record is of this course is excellent as the demand for qualified building services engineers outstrips the supply, partly due to the recent European Directive on energy savings, brought about by the climate change.

# This degree course covers...

Building service engineers work on all aspects of a building which make it safe, comfortable and functional. This is a broad course which covers:

- fundamental scientific principles that support building services
- operation and control of air conditioning, refrigeration and electrical services
- mechanical and electrical engineering
- energy conservation and sustainability
- renewable energies
- building performance.

# Accreditations







# Key course information - ordered by mode

Mode	Duration	Start date	Location
Part-time	4.5 years	September	Southwark Campus
Full-time	3 years	September	Southwark Campus
Sandwich	4 years	September	Southwark Campus



# CIBSE Factsheet What is Building Services?

# **Building services include:**

- energy supply - gas, electricity and power from renewable sources

- operation and maintenance
- heating and air conditioning
- water, drainage and plumbing
- natural and artificial lighting
- -escalators and lifts
- ventilation and refrigeration
- -telephones and IT networks
- -acoustics
- security and alarm systems
- -fire detection and protection.

In every place that you see these services, building services engineers design, install and keep them all in working order.



Imagine the air filtration systems you'd need in a medical laboratory. The heating controls in a special care baby unit? How to control bacteria and humidity in an operating theatre?

What about security systems at the headquarters of MI5? Lighting the new Wembley Stadium? Coping with a power cut in a 70 storey office block?

This is everyday work for a building services engineer.

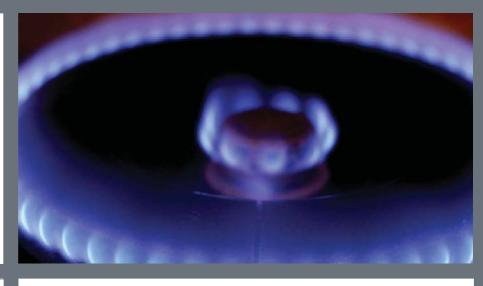


# How to get started

To get started you will need:



- a talent formaking things work
- an interest in design
- enthusiasm and creativity
- ambition and determination
- the ability to meet deadlinesto be a good team player
- to be a good communicator.



# Career development

Careers in building services engineering include Installation, Maintenance or Repair Electrician, Controls and Instrumentation Expert, Heating Ventilation and Refrigeration Engineer, Ductwork Installer, Plumber, Gas Fitter and Sanitation Engineer. For these, look for an apprenticeship, where you can earn while you learn, or then go to college for a level 3 qualification such as BTEC National or A levels. You can then work towards professional recognition as an Engineering Technician or Incorporated Engineer.

# Make a difference

At present there is a real shortage of building services engineers at all levels. This means that pay and conditions are great, there are opportunities for rapid promotion and jobs are available throughout the UK and abroad.

In the future, the sector will expand as new building projects get under way with major public sector, commercial and housing developments.

Demand is increasing for more sustainable and energy efficient buildings and services to combat climate change, and building services engineers are leading the way. You can make a difference by choosing a career in building services.

If you plan to get a degree, you could aim to become an Energy Manager, a Contract or Project Manager, Commissioning Engineer or Estimator, for example.

There's no limit to what you can achieve in this profession. With further study to Masters' level and post-graduation experience, you can become a Chartered Engineer. Many top building services engineers are responsible for leading and directing multi-million pound projects worldwide.

