School of Architecture, Computing and Engineering (ACE)

Degree Apprenticeships at the University of East London

University of East London

Award winning school

Turner Prize 2016, International ICT Prize 2015,
Sterling Prize 2013, among many others

The programmes covered:

- Construction Site Management
- Civil Engineering Site Management
- Construction Design Management
- Digital & Technology Solutions

About the University of East London

The University of East London (UEL) is a modern, dynamic institution with an established reputation for high quality and innovative teaching and an emerging reputation for distinctive research that impacts upon people's lives. UEL offers a wide range of degree programmes and short courses combined with flexible study patterns, state-of-the-art facilities and exciting London-based locations matched with strong employment prospects. More than 19,000 students, coming from over 120 countries worldwide, make UEL a very diverse and exciting place to study.
The University is set in the heart of east London, an area of the capital undergoing dramatic change, and has invested over £200 million, in recent years, to transform its campuses.

Ever since the establishment of the West Ham Technical Institute - its first constituent part - in 1892, UEL has been focused on the delivery of highly vocational courses that equipped students with the skills and knowledge needed by employers. Despite some structural and transitional changes over the last 124 years, our ethos and guiding principles remain much the same and, in this context, the delivery of the academic programmes underpinning the Higher & Degree Apprenticeships - such as the BSc (Hons) Digital and Technology Solutions, BEng (Hons) Civil Engineering, BSc (Hons) Architectural Design Technology and BSc (Hons) Construction Management - represent a return to our roots and to what we do very well, namely equipping our students with the skills to succeed in the workplace.

The School of Architecture, Computing and Engineering (ACE)

The School of Architecture, Computing and Engineering is an award winning school within UEL with dedicated industrial links and key strengths in vocational education. The School focusses on the production of employable graduates by the innovative application of design methodologies and advanced technologies to real-life scenarios in Architecture, Computing and Engineering.

Our programmes are accredited by the leading professional bodies in the Architecture, Computing and Engineering fields – such as ARB/RIBA, BCS, ICE, IET, IStrutE, CIHT, IHE and CIoB - and delivered by experienced staff with a view to adding key competences to the required theory and to providing our students with the confidence to rigorously analyse real-life problems within their chosen sector and design suitable solutions through the creative and innovative use of the most relevant technologies.

Costain

Skanska

Thames Water

Atkins

Careys

Waterman Group

Carillion

Crossrail

Fujitsu

Siemens

Network Rail

TfL

BT

Oracle

Our graduates – drawn largely from our 6 neighbouring boroughs in east London and spanning over 100 nationalities - are employed across the world and are making strong contributions in their companies' growth – be they large multinationals or SMEs, as demonstrated by the case studies available on our web site at: uel.ac.uk/ace.

Many national and international employers have been making a substantial contributions to the delivery of the school's strategic objectives - ranging from membership of our Industrial Advisory Boards to the provision of real-life student projects, internships and placements. Some of these employers have also been directly involved with the development of the appropriate Degree Apprenticeships and Trailblazers standards.

As a School, we have been offering vocational, professionally accredited and industry focused education for many years – as exemplified by our successful part-time provisions in Civil Engineering and Construction Management; more recently, similar provisions have been added to our Computer Science programme.

Track record of successfuly delivering industry-focused, vocational education.

Working in partnership with employers to respond to their needs and help bridge major skills gaps

Our involvement with apprenticeship degrees is a reflection of our commitment to produce employable graduates and it matches UEL's vision of civic engagement. From September 2016, ACE is planning to deliver four Apprenticeship degrees, at its Docklands Campus, in the courses below:

- Construction Site Management
- Civil Engineering Site Management
- Construction Design Management
- Digital & Technology Solutions

This will include an expected intake of 200 apprentices in total.

Our programmes are characterised by high quality teaching and learning environments, top class design and engineering facilities and flexible delivery schedules based on a mixture of intensive courses and on-line learning, whenever possible – but within the constraints of the professional accreditation guidelines - adapted to the needs of the employers and their apprentices.

All our students are supported by an effective virtual learning environment (VLE) and our staff are committed to the delivery of vocational, employment-relevant education.

The Delivery Structure

We endeavour to respond to the needs of both the employers and their apprentices and therefore – where demand justifies it, logistics permit and accreditation rules allow it - aim to adapt the delivery of the chosen apprenticeships programmes to their requirements. We therefore plan, as part of the apprentices' selection and recruitment process, to discuss the above needs with the employers, in order to:

For each apprentice

Map the previous qualifications and skills base on to the chosen programme's Learning Outcomes and the required standard's competencies, leading to the setting up of an Individual Learning Plan (ILP), so as to better support him/her towards achieving the Level 4, Level 5 and, ultimately, Level 6 Apprenticeship goal

For each employer

Map the geographical location of their current apprentices and discuss logistic arrangements (within the constraints of the professional accreditation rules) for delivering the chosen programme in a way that best meets the employer needs.

We remain committed to meeting the needs of employers and endeavour to offer as much flexibility of delivery as possible - within the professional accreditation and Skills Funding Agency rules. We therefore aim to discuss with each employers the most appropriate delivery mechanism for the delivery of the academic programmes underpinning of our Higher & Degree Apprenticeships to their apprentices. Our base offer, however, subject to the negotiations listed above, is focused on the delivery of Higher & Degree Apprenticeships using a day-release structure, based on 2 or 3 modules per day (depending on the entry qualifications and chosen programme), 1-day per week over 24 weeks per year, with all required theoretical material covered in intensive lectures and tutorials plus dedicated practical activities – spanning the application of the required theory - at our Docklands campus; the synoptic project will be based on work carried out at the apprentice's company.

This scheme affords 60 to 90 credits per year and will thus allow apprentices to gain the underpinning academic qualification in 5 to 6 years (depending on the entry qualifications and chosen programme), if starting from Level 3. However, block-release, based on a similar number of credits per year, would also be part of the options discussed with each employer,if needed.

Flexibility is the key

In addition, apprentices with appropriate accredited Level 4 and Level 5 qualifications will be able to gain advanced entry to their chosen ACE programme, thus shortening the time taken to achieve the necessary underpinning academic qualification. In addition, ACE also offers an accredited Foundation Degree (FdSc) in Civil Engineering & Construction Management which shares the first 2 years with the accredited BSc (Hons) Civil Engineering and BSc (Hons) Construction Management programmes and which therefore affords apprentices in Civil Engineering Site Management or Construction Site Management the option to exit with a nationally recognised qualifications at Level 5 if they do not want to progress to Level 6.

Such flexibility is illustrated in figure 1 which shows the possible entry points and exit awards for the underpinning BSc (Hons) Civil Engineering and BSc (Hons) Construction Management programmes, both of which are accredited for IEng status. Similar flexibility, albeit with different exit awards, would be possible for the academic programmes underpinning the Construction Design Management and Digital & Technology Solutions apprenticeships. ACE will also offer to apprentices who want to ultimately achieve CEng status the possibility – subject to having the appropriate entry qualifications, particularly in relation to the Mathematics content - to gain a BEng (Hons) Civil Engineering over 6 years, on the basis of a day-release structure with 2 modules delivered per day, once a week, over 24 weeks, equivalent to 60 credits per year.

The Benefits

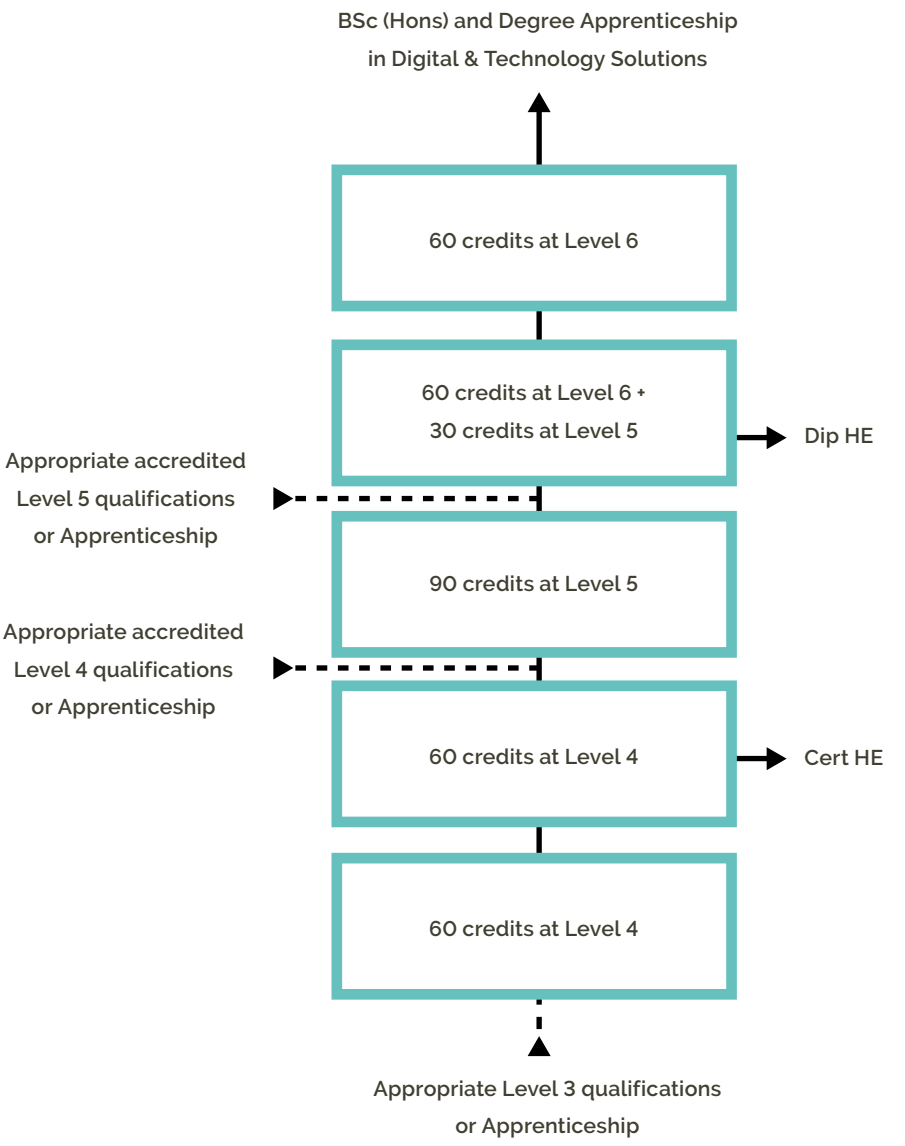
Irrespective of the entry point and number of academic credits studied, apprenticeships are a very effective way of gaining not only the required theoretical knowledge but also, crucially, the confidence to apply that knowledge to real-world problems and to design suitable solutions through the innovative use of appropriate technology. In particular, the absence of a delay between the acquisition of the theoretical knowledge and its immediate application – via guided and dedicated practical activities – to the work environment, makes apprentices a valuable asset and able to positively contribute to their company's business long before they finish their level 6 programme.

In addition, the rigorous analysis skills gained by the apprentices during their degree studies will afford them the ability to always consider multiple design options and technological alternatives, thus enabling them to cope with future developments in the sector and unforeseen circumstances.

UEL – and the School of Architecture, Computing & Engineering (ACE) in particular - has been delivering practice oriented, industry-related programmes for decades - such as the FdSC/BSc Civil Engineering & Construction Management and BSc Surveying &Mapping Sciences. We have the experience and expertise to successfully run academic programmes underpinning the Higher & Degree Apprenticeships and we hope that you will join us!

Figure 1

Possible entry points and exit awards for the accredited academic programmes underpinning the **Digital and Technology Solutions** Apprenticeship.



Great location.

Adjecent to one of Europe's largest regeneration area, with hundreds of major employers located on our doorstep.

uel.ac.uk/ace