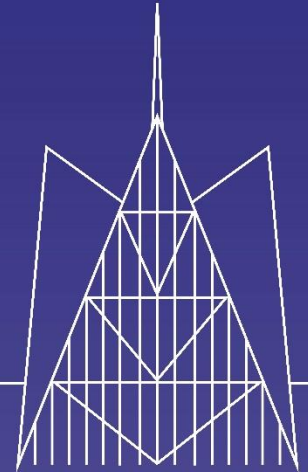


CANTERBURY
CHRIST CHURCH
UNIVERSITY

Degree Apprenticeships for Build Off Site

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Head of School of Engineering, Technology and Design



SKILLS GAP BUILD OFF-SITE

- Volumetric Modular Build skills Gap
- Craft and Skills Competency needed for on production line
- New Level 2 Construction Assembly Technician Standard
 - led by Industry Consortium,
 - but still to be approved by IfA
- Need Mechanical/Manufacture Engineers not construction Engineers
- Need High/Degree Skilled Mechanical/Manufacturing/Control/Technical Support Apprenticeship Engineers



WHAT ARE APPRENTICESHIPS STANDARDS?

All apprenticeships specified by:

- Apprenticeship Standards define;
 - Behaviors, knowledge and skills
 - Entry requirements, level, minimum duration, and qualifications
- Assessment Plan defines;
 - learning outcomes,
 - Grading
 - how assessment will operate
- Institute for Apprenticeship will define maximum funding banding
- Apprenticeship can only be delivered by a training provider which can offer the qualification
- Overseen by Institute for Apprenticeships (IfA)



WHAT ARE HIGHER/DEGREE APPRENTICESHIPS?

- Apprenticeship at Level 2 and 3
 - Level 2 = GCSE
 - Level 3 = A'level/BTEC/T-Levels = 2Es
 - Quality overseen by Ofsted
- Higher apprenticeships at Levels 4 and 5
 - level 4 = HNC
 - level 5 = FDEng/HND
 - Quality overseen by OFSTED
- Degree apprenticeships at Levels 6 and 7
 - (Level 6 = BEng and Level 7=MEng/MSc)
 - Quality overseen by OFSTED
- Apprentices work full-time (>30 hours per week)
- For new or existing employees of any age group



BUSINESS COSTS

- Apprentices are paid by employers
- Training paid by employer, however overall cost;
 - Pay using Levy (if 0.5% of wage bill, if >£3M)
 - Pay 10% (if Non-Levy, government pays 90%)
 - Some Local GOV transferring Apprenticeship Levy to SMEs
- Cashback available from government
- Employer apprentice mentor
- 20% off-job study time (1 day in 5) mandatory
- 20%+ if apprentices do not have GCSE English & Maths



CCCU EDGE HUB VISION

Growing the economy through engineering, science and technology

Secured £13.6M in government funding (SELEP, OfS and Charity)

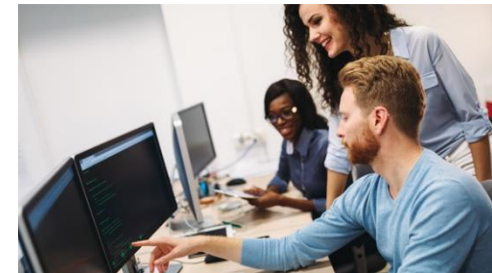
Delivery in partnership with local companies to:

- Provide holistic and inclusive engineering solutions to meet societal challenges and local companies needs
- Provide access to high quality – staff, teaching, research, and facilities
- Create facilities in key locations across Kent reflecting the needs of the sector



OUR OFFER

- Co-design of curriculum with employer groups
- Delivery at any of our campuses or at employer locations (depending on numbers)
- Work-based learning and assessment fully integrated
- Mentor training programme including accreditation if desired
- Link tutor support in the workplace
- Completion of CCCU Apprenticeship degree in 3 years with no prior experience (as opposed to 5-6 at some HEIs)



EDGE HUB FACILITIES 2020



PROFESSIONAL STATUS

- Shortfall, 22,000 Engineers per year (EngineeringUK, 2018)
- Professional status:
 - Our FT and Apprenticeship programmes working towards accreditation
 - Successful degree apprentices can apply for EngTech/IEng/CEng (depending on apprenticeship, programme accreditation and postgraduate study)



CCCU ENGINEERING APPRENTICESHIPS

- 45 days a year of training and assessment
- Delivered as 1 day a week for 45 weeks or in week long blocks
- The assessments typically;
 - Are typically work related/based
 - Design to prepare apprentices for Apprenticeship End Point of Assessment (EPA)



BUILD OFF-SITE ENGINEERING APPRENTICESHIPS

- [Manufacturing Engineer \(Degree\) Apprenticeship Standard](#)
 - Approved
 - Qualifications (Degree and End Point of Assessment)
- [**Control / technical support engineer \(degree\)**](#)
 - Approved
 - Qualifications (Degree and End Point of Assessment)
- Quality Improvement Standards
 - [Improvement Practitioner \(Level 4\)](#)
 - Approved
 - Qualification is End Point of Assessment Only
 - [Improvement Specialist \(Level 5\)](#)
 - Approved
 - Qualification is End Point of Assessment Only
 - [Improvement Leader \(Level 6\)](#)
 - Approved
 - Qualification is End Point of Assessment Only
- [Postgraduate Engineer \(Degree\) Apprenticeship Standard](#)
 - Approved
 - Qualifications (Postgraduate Diploma and End Point of Assessment)

BUILD-OFF SITE APPRENTICESHIP DEGREE

BEng (Hons) Manufacturing Engineering						
Build Off-Site Pathway Blue Modules						
	Mechanical Engineering Dynamics	Manufacture Systems Engineering	Maths	Material and Manufacturing Engineering	Design Engineering	Engineering Professional Practice
Level 4 (Year 1)		Professional Practical Maintenance Engineering Project 20 credits Spring Year 1	Higher Education and Mathematics Skills 20 credits Autumn Year 1	Introduction to Material & Manufacture 20 credits Spring Year 1	Introduction to Design Engineering 20 credits Autumn Year 1	Introduction to Electronic and Computer Systems and Practice 20 credits Summer Year 1
Level 5 (Year 2)	Dynamics of fluid and thermal applied systems 20 credits Autumn Year 2	Dynamics of Applied Solid Mechanics and Materials 20 credits Spring Year 2	Manufact'g Systems (Sensors, Comms and Control) 20 credits Summer Year 2	Dynamics Mathematics 20 credits Autumn Year 2	Integrated Mechanical and Electrical Design for Manufacture 20 credits Autumn Year 2 option	Integrated Mechanical and Electrical Building Services Design 20 credits Autumn Year 2 option
Level 6 (Year 3)	Dynamic Modelling (Material, Fluids and Thermal Dynamics) 20 credits Spring Year 3	Manufacture Logistics and Supply Chain Engineering 20 credits Spring Year 3		Applied Manufacturing Industry 4.0 20 credits Autumn Year 3	Designing for Applied Building Manufacturing 20 credits Autumn Year 3 option	Designing for Modular Building Manufacturing 20 credits Autumn Year 3 option
						Professional Applied Engineering project 40 credits Summer Year 3

COST ENGINEERING APPRENTICESHIPS

- Manufacturing Engineer (degree) (£27,000, L6)
- Control / technical support engineer (degree) (£27,000, L6)
- Improvement Practitioner (£6,000, L4)
- Improvement Specialist (£9,000, L5)
- Improvement Leader (£15,000, L6 without degree)



SUMMARY

- Opportunity for staff and build off site business:
 - Address skills shortage
 - Staff apply their learning to make tangible difference while learning
 - Up-skilling of staff
 - Provide career progression for Level 2/3 apprentices and other staff
 - Invest in staff and provide sustainable pipeline (reduce churn)
 - Utilise the Levy to invest in business
 - Influence the engineering curriculum and resources

FEEL FREE TO ASK QUESTIONS

