Civil Engineering Degree apprenticeship at Coventry University

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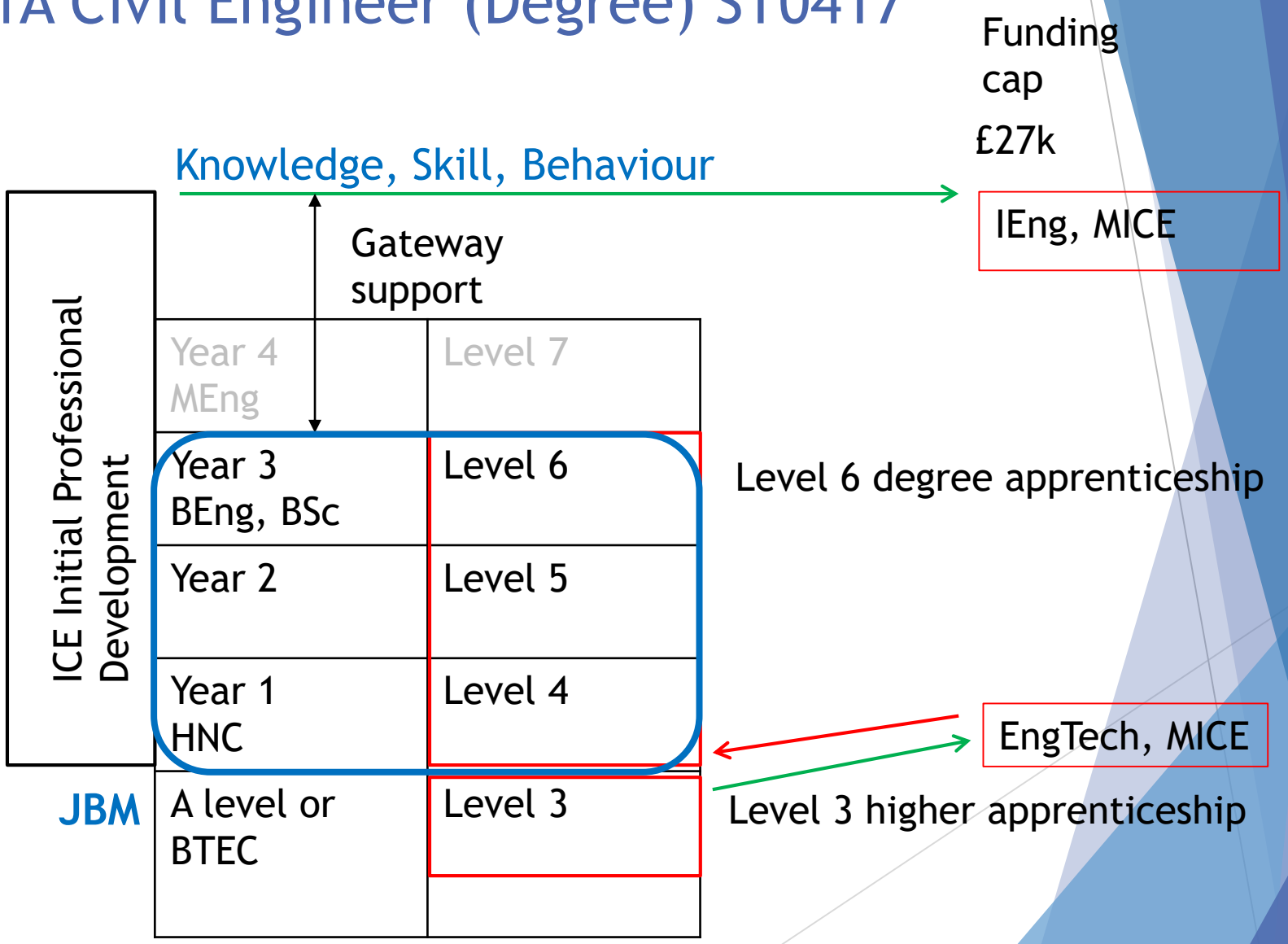
Coventry University

DEGREE APPRENTICESHIPS PROGRAMME

based on

IfA Civil Engineer (Degree) ST0417



DEGREE APPRENTICESHIPS PROGRAMME

based on

IfA Civil Engineer Site Management Degree Apprenticeship ST0042

Funding cap £18k

Knowledge, Skill, Behaviour

IEng, MICE

Gateway support

ICE Initial Professional Development

Year 4 MEng	Level 7
Year 3 BEng, BSc	Level 6
Year 2	Level 5
Year 1 HNC	Level 4
A level or BTEC	Level 3

Level 6 degree apprenticeship

EngTech, MICE

Level 4 higher apprenticeship

JBM

Apprenticeship Programme

- Component 1: accredited BSc or BEng degree course
- Component 2: ICE IPD
- Component 3: Gateway support up to End Point Assessment
- Training Service Provider (the university) is responsible for the whole programme, licence renewal every three years.

Why isn't a traditional Part Time programme suitable?

Rules (2017/18 funding rules)

- E50 (2017/18 funding rules) or E43 (2018/19 funding rules) states: "You must allow the apprentice to complete the apprenticeship within their working hours. This includes English and maths if required. You must provide the main provider with evidence of this for them to keep in the evidence pack."

Rules (2018/19 funding rules)

- E23 "at least 20% of the apprentice's paid hours, over the planned duration of the training period within the apprenticeship (for standards this is called the practical period, which ends at the gateway for end-point assessment), must be spent on off-the-job training".
- E20 states: "Off-the-job training must be directly relevant to the apprenticeship framework or standard, teaching new knowledge, skills and behaviours required to reach competence in the particular occupation. It can include training that is delivered at the apprentice's normal place of work and can……."

Why does an existing degree course not acceptable ?

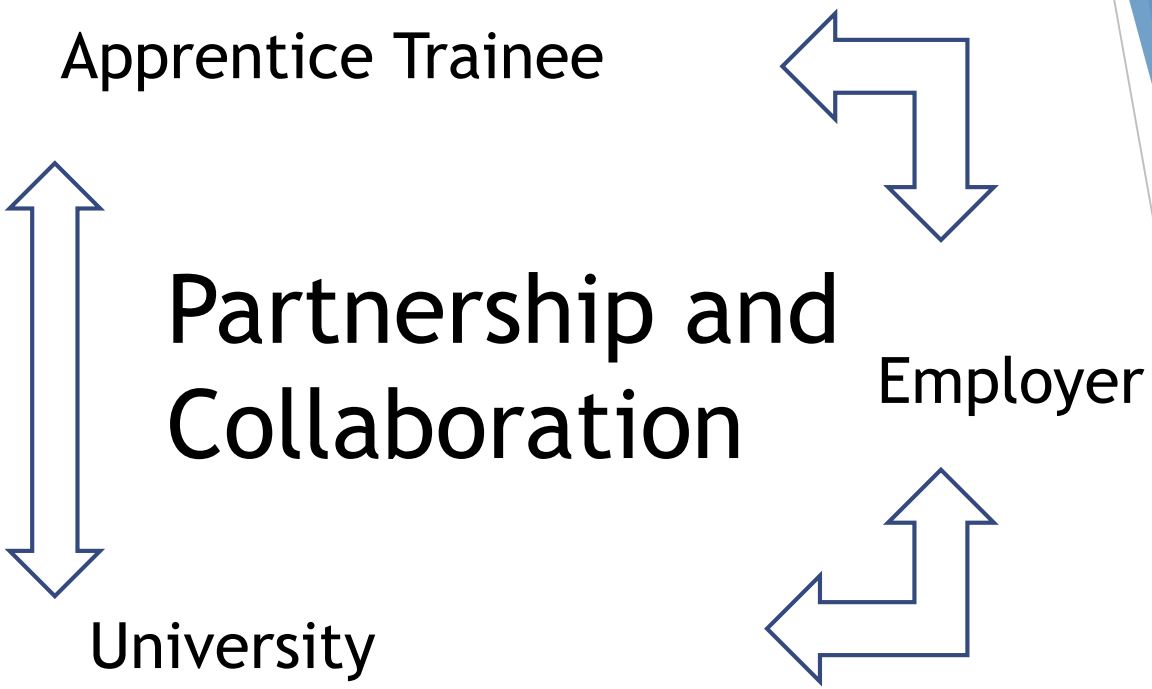
- 360 credits to complete a BSc/BEng degree course.
- 72 credits per year = 720 hours effort per year
- 20% of working hours ≈ 350 hours
- Integration and Workplace based learning (WBL) are vital for success of an apprenticeship degree course ???
  - Note: WBL ≠ Workplace Based Assessment

How to put an elephant in a bottle – Grey Areas of the rules ???

- Classification of the degree is not mentioned in any documents including
  - The apprenticeship standard + End Point Assessment
  - The IPD attributes
  - The ICE professional review

- Outcome: The employer's commitment statement under the E43 rule to complete the standard
  - → employers provides adequate time to pass the degree.
  - → apprentice's ambition to gain higher classification

Success depends on



- Transparent approach – trainee and line managers in the same workshop and induction of how the programme works (fair to all parties).
- Plan ahead – all coursework and exam of all modules scheduled in advance and all “study” hours stated.

An example of sharing

- 20 credits to complete a module.
- 200 hours effort
- 50 hours contact in university, lectures, tutorials, lab and practical (1 day per week attendance)
- 80 hrs independent study → 30 hrs if relevant work experience is provided.
- 70 hrs Exam + Coursework → 30 hrs if relevant work experience is provided with a target of “pass”.
- If employer does not provide relevant experience, extra hours will be provided.

Our Journey to develop the DA Programme

- Member of both Trailblazer consortiums to develop the standards.
- Discussion with IfA
- Close collaboration with the ICE
- Involvement of CU Industry Advisory Board
- Involvement of experts in CE and HE

Supported by the ICE

- ICE Registered Academic mentors
  - Neil Tsang – Highways Infrastructure
  - David Trujillo – Structures, Timber, Buildings
  - Jon Ordidge – Structures, Buildings
  - Janet Campbell - Water
- Academic Mentors will be able to monitor ICE attribute completion via ICE IPD online
- Ray Hulse, membership development officer, West Midlands
- Susan Clement, Thomas Compton, Rula Palfreman of ICE
- Trial on IPD online before programme started.

Reporting schedule

- 3 to 4 times Joint Progress Reporting per year

- Semester 1 : September to January
- February for semester 1 reporting.

- Semester 2 : January to April
- June for semester 2 reporting.

Reporting schedule

- September for annual review
  - Course progression after resit
  - ICE training attribute completion

- 2 workplace visits per year + online meetings
- Optional : April review/visit for students in difficulty

Periodic Progress Report

Apprentice name:	Cl
Company Name:	Pe
Line manager/supervising engineer name:	Th
Academic Tutor/lecturer name:	Ne
Appraisal Date:	9 .
Dates of period covered:	Ja

Periodic Progress Report

1. Progress
Achievement in modules, attendance, 20% off job hours recorded.

Current academic NVQ level: 5a (Expected academic level: 5a)

Attendance : 68%; 20% off job : 80 hours.

Academic achievement

Module in this period	Exam and Coursework results	Module leader comments
2024EXQ Geotechnics and Hydraulics	Cw 60 EX 83 Mm 77	Excellent performance.
2043EXQ Workplace Project 1	Cw 71.5 Mm 71.5	Top six performance.

Periodic Progress Report

Overall comments by course director:

Completed stage 2a semester 2 well and continue to stage 2a semester 1 in September 2018 to January 2019.

ICE Training achievement

ICE attributes	Achievement	SCE comments

Periodic Progress Report

Summary Map to the Apprenticeship specific Knowledge, Skill and Knowledge

Summary in overall progress: % of attributes completed

(Please provide a statement of how the 20% off job hours spent on)

2. Areas for development

Discuss areas that the employer could support the apprentice with their development.

ICE attributes target for next period.

ICE attributes	Expected Achievement

Periodic Progress Report

3. Looking forward

Discuss and plan areas for the apprentice to work on during working hours to support portfolio and or up coming modules.

List of modules of which work-based learning or project occurs in next period:

Module code and title	Module contents	Work Based supports
2023EXQ Contract and Project Management	50% 2hr Exam (8 hr) 50% CW (12 hr)	Relevant experience at work
2026EXQ Structural Analysis and Materials	25% lab report (4 hr) 50% 2hr Exam (8hr) 25% CW (8 hr)	Relevant project at work

Periodic Progress Report

Employer Feedback

Strengths
Areas for improvement

Apprentice feedback

Feedback about the course and administration
What I would like to improve, and any challenges to achieving my targets

Periodic Progress Report

Line manager/supervising engineer signature _____

Apprentice signature _____

Tutor/lecturer signature _____

Supports

- Advisory: Academic mentors, independent career councillor, student welfare councillor
- On demand contents: Moodle, video presentations, electronic resources
- Apprenticeship cohort (if size allowed): appropriate teaching and learning style, timetable and WBL

Gateway Supports

- Embedded in the course in the skill development of report writing, reflective practice and interview skill.
- Report review before EPA by professional reviewers
- Mock Interview
- Training consultants: Philip Moneypenny, Roger Venables and Jean Venables MBE (past ICE president 2008)
- Joint ICE professional review preparation course (collaborate with West Midlands development officer)

Main Differences

- Front load 90 credits of “theory” contents in level 4 in 15 months to allow meaningful work experience for IPD.
- “Workplace project” module to replace “Group project” module in every level.
- “Workplace investigative project” module to replace “Dissertation project” in final year.

Workplace investigative project

- to replace “Dissertation project” in final year.
- A piece of unconventional solution required in a design or assessment project from work.
- Relevant to the interest of the employer or his clients.
- Joint supervision with mentor or SCE.

Link with industry

- Employers' representatives with direct experience in management of apprenticeship invited to join Industry Advisory Board
- Robert Hall from PeterBrett
- Tom Rogers and Darren Salmons from Atkins
- Alan Jones from Galliford Try

IfA control, if any ?

- End point assessment currently by a single institution – ICE
- A National End Point assessment standard
- First time one can accurately compare universities (as Training Providers) and employers
- IfA will make statistical data transparent to the public
  - Completion Rates, Completion Time and Pass Rates etc.