Career entry pathways

Traditional and emerging

Miles Pixley CEng FIMechE MIET

General Manager: Technical and Professional Development

Over 300 different products

Compact

Mid Range

Heavy Line

Other

We need welders and lots more!

JCB need a skilled workforce

Demonstration
Powertrain
Specialists
Manufacturing
Photography
Health & Safety
Test
Trainers
Marketing
Automotive
Engineers
Legal
Drivers
Maintenance
Publishing
Service
Aviation
Finance
Catering
Mechanical
Design
Electrical
Development
Graphics
IT
Human Resources
Electronic
Logistics
Purchasing
Facilities
Medical

Engineering and Innovation at the heart

Current Pathways

Work Experience (15+)	1 Week	
Apprenticeships – Level 2,3	3 to 4 years	2 days/wk
Higher Apprenticeships – Level 4/5…+	2 Years to FD, 3 with NVQ Level 4	1 long day/wk
	Further 2 years to BEng	1 long day/wk
Undergraduate Placement Year (with sponsorship and incentive package)	48 Weeks	
Summer placements - all years	10 Weeks	
Graduate Programmes	12 to 30 months	

Engineering focus to support ALL disciplines
Typical annual intake around across all programmes 100 people

Our Approach – 1 Team

- Defines programmes to match business needs
- Engages with feeders – (Schools to University)
- Promotes Careers Insights
- Attends recruitment events
- Design Assessment
- Screens Candidates
- Runs Assessment Centres in conjunction with business managers
- Makes selection
- Contracts (full employees from day 1 – not just a scheme)
- On-boards and inducts
- Schedules rotations (at least 3) –Mix technical, customer, commercial
- At as scheme leaders for duration of programme
- Delivers enrichment business insights
- Leads professional registration / mentoring team (IMechE & IET)
- Supports some module delivery
- Capture business case studies to provide in context learning
- Tracks progress, and handles corrective actions
- Places in the business

Ensures closed loop feedback - Know the individuals and match them to business needs

Our Language

Source: Apprentice Frameworks Online Website

Real jobs & Exciting Careers

Competency

Recognised qualification of rigor

Skills needed for the business (or ability to acquire them)

Attitude and commitment

Effective People

Opportunity to develop aligned values

Apprenticeship Perceptions / Aspirations

"If you don't get your grades for university you can always do an apprenticeship….."

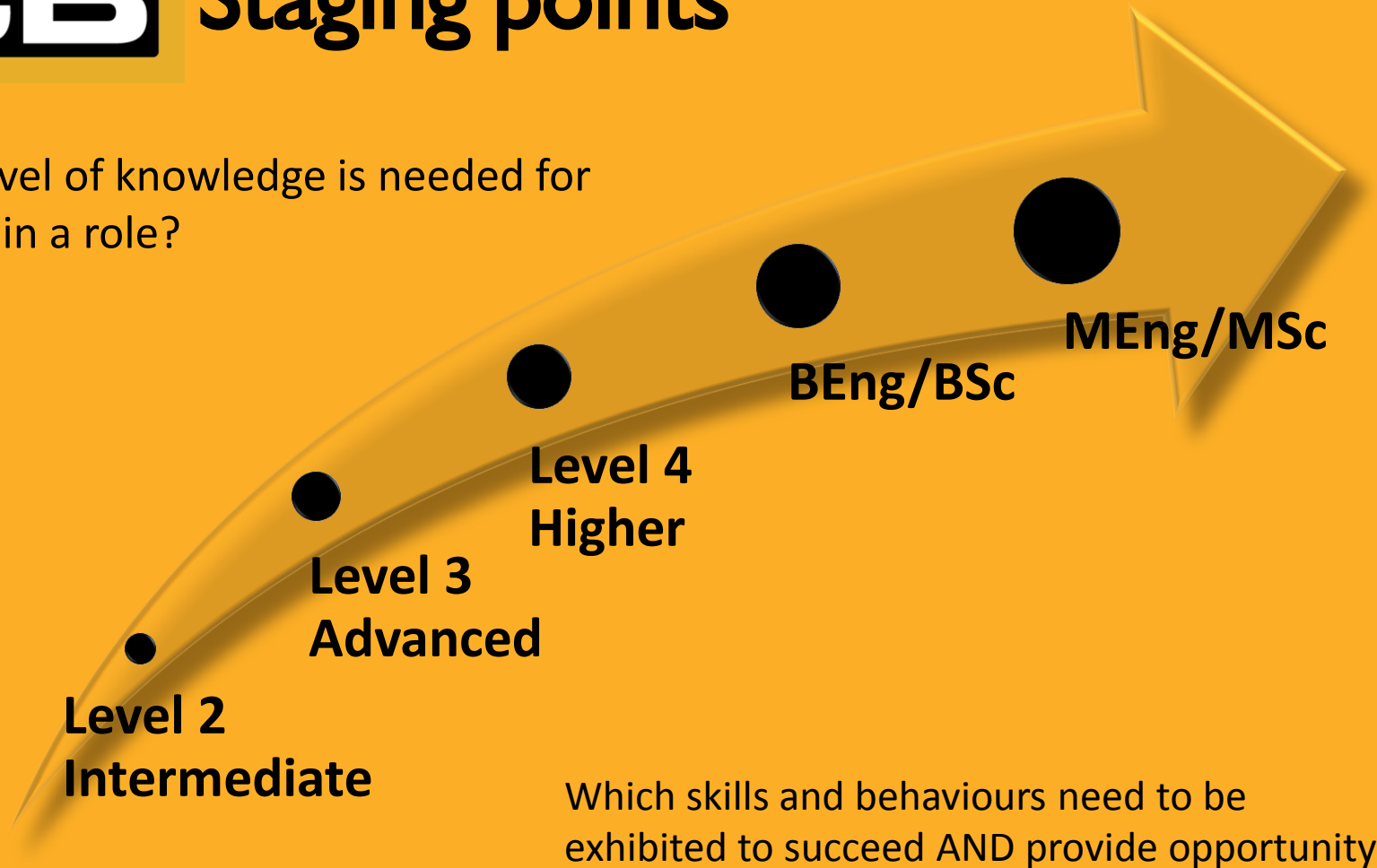
"I want to continue to learn, and get a good job…. I am worried about having a big debt if I go to university..."

There is still a degree of mystery around what it actually is, and if it is a good thing to do… it is up to us as employers to address that.

Degree level apprenticeships announced but not widely active. Offering needs clarity… needs a joint approach by government, academia and business.

Staging points

What level of knowledge is needed for success in a role?



Which skills and behaviours need to be exhibited to succeed AND provide opportunity to progress further?

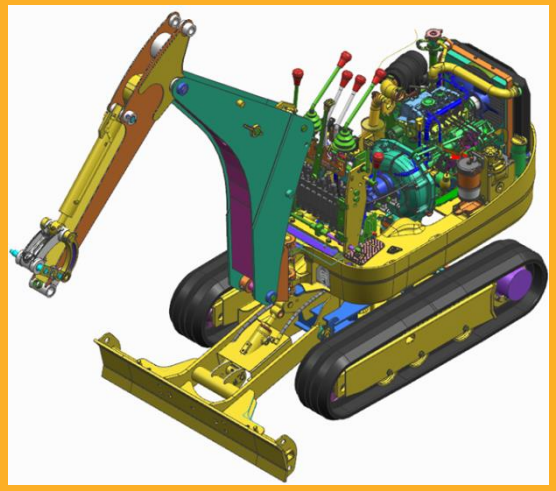
Achieve "Mastery" at all levels matched to business need

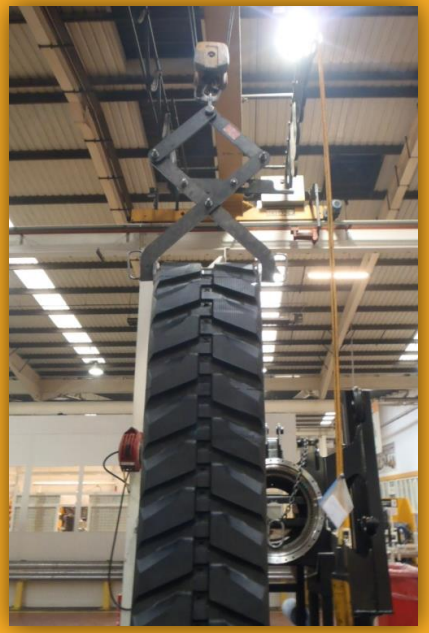
Higher Apprenticeship

4 years

- For roles in
  - Design
  - Test
  - Technical Service
  - Manufacturing
- Foundation degree (Integrated Engineering) – 1day per week for 2 years
- Optional top up to BEng (Mechanical, Electrical, Manufacturing) – Further 1 day per week for 2 years

Higher Apprentice Work





Real impact, end to end ownership, fresh ideas – all 1 year post A-Level study

Higher apprentices with 1 year experience on a par with undergraduates with 2 years at university

Setting High Expectations

- But be prepared to allow a little time to get there
  - The right candidates will rise to the challenge
  - Rates of progression will vary
- Immerse individuals from day one in real activity
  - Offer opportunities to experience the wider business
  - Experience multiple job roles to find optimum fit for individual and the business.
- Set regular reviews to ensure everything is on track
  - Act quickly to retain engagement and reinforce expectations

Our expectations of provider

- Efficient registration
- Knowledgeable people
  - Extra support if necessary
  - Unit selection to match business need
- Clear timetable – maintained and sequenced appropriately – delivered to plan
- Balanced loading / visible loading
- Regular feedback
  - Attendance / Time keeping / Performance / Attitude
- Responsible employees – not children

SHU Case Study – Working in Partnership

- Providing clarity on entrance needs
- Aligning our feeder programmes
- Provision of additional maths support
- Hydraulics & Control unit development
- Block administration of co-hort
- Clear progress reporting
- Forward unit study visibility and assessments
- Responsiveness to facilities access to match learners needs
- Attending SFA briefing events together to access funding opportunities

Our experience to far

- Feedback from our line managers is overwhelmingly positive on the attitude and abilities of our apprentices.
- "*Give me as many higher apprentices as you can rather than the graduates*" …. Is a universal message not the views of a couple – Intake patterns will change.
- Team dynamic of those on the programme is very strong – mutual support with study and application in the workplace.

- Higher Apprentices frequently turning down full time offers at "Top 20 Universities" - to accept a Higher Apprenticeships.
- Improving diversity - our highest ever intake of females

Other benefits….

- Keeps existing employees on their toes!
- Challenges status quo – simpler ways of doing things
- Often technology savvy
- Learning new technology and tools
- Financial support for the training

Priming the pipeline

- Earlier STEM careers influence
- 14-19 Education UTC establishment

To provide a truly world class experience for young people – one which enthuses and inspires them to become the engineering and business leaders of the future

THE JCB ACADEMY

- Now also our Apprenticeship provider…..
- Level 2 and 3 Programmes open to all:
  - Land Based Engineering
  - Fabrication and Welding
  - Engineering (Mech and Elec)
  - Engineering Business Support

- A-Level students learning
  - Materials & kinematics
  - Fluid power
  - Control

Trends and future

STEM skills demand and demographics will drive increased focus on developing existing personnel to maximum potential:

- Technicians to Engineers
- Level 3 to Level 4…
- (and even retraining from other disciplines)

Many business roles well served by Level 5 qualification, not necessarily level 6/7 at outset.

Pace which continues engagement, and embeds learning of significant value:

- Block study formats delivered on site / some distance learning elements
- Opportunity to apply, and achieve "Mastery" of a subject
- Further staged progression of awards – eg PG Cert, MSc and EngTech / IEng / CEng….

What we seek…

Academic rigor, professional institution recognition, business enrichment.

- Company subject matter experts to support
  - Support up to 20% delivery (direct or through insights)
  - Case study development / Contextualised examples
  - Assignment specification and scoring criteria (but not assessment)

Looking to underpin other business behaviours and skills in the process:

- Understand real business operations and business systems
- Understand business workflows and cross functional interaction
- Networking / relationships
- Fundamentals of IP
- Business case development and project management

Applied through real and simulated business projects / assessed assignments

Not looking to create entire bespoke degree specification

Thank you