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Transforming Student Aspirations: Embedding 5-year Plans in the Curriculum

Dr Lindsey J. Munro, Janet Marshall, Dr Lisa Coulthwaite & Dr Fiona Saunders
Faculty of Science & Engineering
29 January 2020
Employability Agenda is A Contested Space in HE
TEF Metrics - Employability:
• DLHE / Graduate Outcomes (6 / 15 months after graduation):
  - Employment after the course
  - Graduate level employment

• LEO:
  - Sustained Employability
  - Above Median Earnings after 3 years

• TEF Gold:
  - Need excellent graduate outcomes + aspirations for promotions
  - All of us our working to improve our students prospects
What are the barriers to getting the graduate careers they are capable of?
Barriers for Students → Graduate Careers

- Fear
- Not sure of options
- Changed their mind

- Confidence
- Hoping their grades will improve
- Experience

20% of graduates leave Grad Scheme by the 1\textsuperscript{st} Year

Association of Graduate Recruiters (AGR) Development Survey 2017
BUT ... The workplace is changing rapidly
“A Graduate Job”: The Robots are Coming

- **Challenges:** Industry 4.0 – automation, digitisation, real-time data
- By 2022, 54% of all employees will require significant re- and upskilling. (WE Forum, 2018)
- 65% of university students today will take up jobs that don’t exist
- **“Future proofed” Interdisciplinary Graduates:**
  Important to develop a range of skills
  Internet of Things Data Creative - Rewilding Strategist
  Virtual Habitat Designer – Bio hacker

Independent – Rachael Pellis (2016)
Employers Skills List: The Human Element

• **Specialist Skills:**
  - Digital Skills
  - Programming
  - Business Awareness

• **‘Human’ skills:**
  - Creativity
  - Originality
  - Initiative
  - Innovation
  - Persuasion
  - Negotiation
  - Resilience
  - Flexibility
  - Problem solving
  - Critical thinking
  - Attention to detail

• **Skills Gap:**
  - Only 23% of UK firms believe that a new graduate will arrive fully prepared
  - 49% find they lack interpersonal skills, 40% lack problem solving skills

• **Degree:** “Licence to Learn”
What can Universities do to help students get suitable Graduate jobs?
Science & Engineering - Employability

Strong Employability Focus ➔ Improved DLHE
- Courses link to related careers
- Careers Workshops embedded in induction, units & throughout year
- 1-to-1 Support
- Meet the Employers Networking Events
- Careers Events

It’s Not Enough ➔ As an extra!
- Works for the students that:
  - Know what they want to do
  - Have families who can advise
  - Engage
  - Apply

Key to charts:
- A – not ready to consider career
- B – decide about career
- C – plan career
- D – compete in jobs market or study
- E – succeed in chosen career

Manchester Metropolitan University
Teaching Employability Skills

Not just about teaching these [employability] skills but also about helping students realise that they have them and importantly can articulate them.
Proctor and Harvey, 2018

Engineering education should take a “Perspective on graduateness that recognises the significance of disciplinary knowledge but that also holds a space for the development of student agency”
Case and Marshall, 2016

Planning for success: Graduates’ career planning and its effect on graduate outcomes

Research for Education
March 2017
Jan Shury, David Vivian, Catherine Turner, Christabel Downing – IFF Research

Those who had clearer plans were more likely to have reported positive outcomes two and a half years after graduation, with those whose main activity was working in a professional or managerial role or further study more likely to have had clearer career plans at an early stage than those who were in non-professional employment or were unemployed.

Need to overcome pedagogical discontinuities within and across disciplines Bingham et al., 2015

Nuanced approach to 5 year plans overcomes this
How can 5 Year Plans help students gain graduate jobs?
A journey of a thousand miles begins with a single step.

— Lao Tzu
5 Year Plans ➔ Embedding into the Curriculum

- Start early (Year 1) ➔ Focus on graduation by end of October (Year 3 / 4)
- Highlight Employability Milestones ➔ Employers / Moodle
- Embed into curriculum ➔ Unavoidable ➔ Assessed
- Supported by Personal Tutors

5 Year Plan + Action Plan + CV

Year 1:
- Explore Options
- Build Skills

Year 2:
- Apply for Work Experience

Year 3 / 4:
- Apply for PG / Graduate Jobs

Workshops
Online Centre
Employer Events
Placements

Sci & Eng
Extracurricular Award
5-Year Plan

**Successful career management and your 5 Year Career Plan**

Janet Marshall – Careers Consultant
Manchester Metropolitan University

**Acknowledgment:**
- Career planning may seem daunting

**Aim:**
Have a strategy to:
- Notice & maximise any potential opportunities
- Develop your employability
- Map out realistic goals

**Activities:**
- Values & Motivations
- Skills Assessment (SWOT)
- Online Careers Centre:
  - Career Pulse
  - Tailored Programme for Year 1 - 4

**Video:** Janet Marshall & Dr Lisa Coulthwaite
## 5-Year Plan

**Five Year Career Plan:** Develop a long-term professional vision – what do you hope to achieve in 5 years?

<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall goal</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>What do I need to do to achieve my goal?</strong></td>
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<tr>
<td><strong>What support &amp; resources will I need?</strong></td>
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<tr>
<td><strong>What training &amp; qualifications will I need?</strong></td>
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</table>
# 5-Year Plan → Personal Tutor Support

## Five Year Career Plan: Develop a long-term professional vision
– what do you hope to achieve in 5 years?

<table>
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<th>Year</th>
<th>Overall Goal</th>
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<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Explore Options</td>
<td>Gain Work Experience (Summer or Placement Year)</td>
<td>BSc: Apply for Graduate Job / MSc / PG / PhD</td>
<td>MChem: Gain more Work Experience (Summer)</td>
<td>BSc: Pass probation year + work out career path</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Build Skills</td>
<td></td>
<td></td>
<td></td>
<td>MChem: Promote / More Experience</td>
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<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BSc: Pass probation year + work out career path</td>
</tr>
</tbody>
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**Courses:**
- **BSc:**
  - Year 1: Explore Options
  - Year 2: Gain Work Experience (Summer or Placement Year)
  - Year 3: Apply for Graduate Job / MSc / PG / PhD
  - Year 4: Pass probation year + work out career path
  - Year 5: Promotion / More Experience
- **MChem:**
  - Year 1: Build Skills
  - Year 2: Gain more Work Experience (Summer)
  - Year 3: Apply for Graduate Job / MSc / PG / PhD
  - Year 4: Pass probation year + work out career path
5 year plans in Life Sciences: Link to Third Term Opportunities
5 year career plans in Engineering: Led by Personal Tutors
5 year career plans in Chemistry: Workshops & Personal Tutors
<table>
<thead>
<tr>
<th>Challenges Faced</th>
<th>Lessons Learned</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Engaging Staff</strong></td>
<td><strong>Careers Support:</strong></td>
</tr>
<tr>
<td>- Experience of feedback on careers</td>
<td>- Make it easy → Clear expectations</td>
</tr>
<tr>
<td><strong>Engaging Students:</strong></td>
<td>- Tailor to each subject &amp; Year group</td>
</tr>
<tr>
<td>- Graduation seems a long way off</td>
<td><strong>Provide Linked Opportunities:</strong></td>
</tr>
<tr>
<td><strong>What will you replace:</strong></td>
<td>- Sci &amp; Eng Extracurricular Award</td>
</tr>
<tr>
<td>- Limited space in the curriculum</td>
<td>- Work Experience (Visits</td>
</tr>
<tr>
<td></td>
<td><strong>Adapt &amp; link to Real Experiences</strong></td>
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<td></td>
<td>- Feel prepared → Mock interviews</td>
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</table>
Benefits of Curriculum-Based Employability

As a University we have a wide range of excellent support & opportunities → Which we need every student to benefit from → Raise aspirations

Embedding 5-year Plans → Applications → Interviews in the curriculum:
• Essential part of their University experience
• Builds up their confidence & readiness
• Increases awareness of opportunities
• Helps with motivation → Progression

Staff Feedback:
“For the 1st time, Year 2 seem to have a really clear idea of what they want to do next.”
Connecting Employability for Students

Map Employability in the Curriculum

Coaching to Build Confidence:
- Personal Tutors
- PALs
- Toastmasters
- Alumni

Online Resources:
- Careers Centre
- Newsletters

Opportunities:
- Science & Engineering Extracurricular Award
- Volunteering
- Meet the Employers Networking Event
- Extended 3rd Term
- Work Experience

Work Experience

5 Year Plans

Career Preparation Workshops

Graduate Jobs

PG Study
Success, Curiosity, Ambition, Purpose, Fearless, Adventure
Science & Engineering Employability Team

**Careers:**
- Janet Marshall
- Marina Matosic
- Kirstin Burke
- Megan Sharifi
- Rebecca Hall
- Sarah Reith

**Placement:**
- Amy Dutton
- Katie Grantham
- Marie McGarvey
- John White (Business Dev)

**Student Enrichment:**
- Andrew Lenehan

**Science & Engineering:**
- Fiona Saunders (Faculty Head of Education)

**Department Leads:**
- Lisa Coulthwaite (Life Sciences)
- Lindsey J. Munro (Natural Sciences)
- Haydn Insley, Lisa Simmons, Carl Diver (Engineering)
- Bob Cherry (Computing)
- Lida Nejad (Mathematics)
- Ben Ives (Sport & Exercise Science)

**Placement Tutors:**
- Scott Pedley (Biology)
- Ian Ingram (Chemistry)
- Hannah Matthews (Env Sci | Geography)
- David Sawtell (Engineering)
- Paul Marsden (Computing)
- Killian O’Brien (Mathematics)