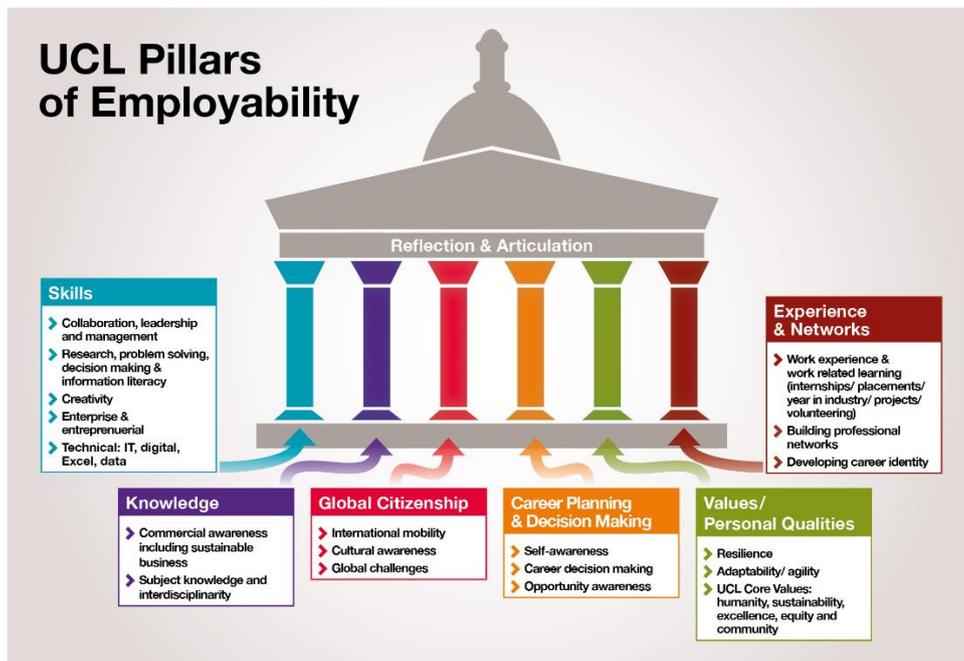


UCL PILLARS OF EMPLOYABILITY REPORT



Abstract

Analysis of the UCL context for employability, existing employability frameworks and literature. Resulting in a UCL bespoke employability framework.

UCL Pillars of Employability

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Executive Summary

This paper includes an analysis of the UCL context for employability, existing employability frameworks (both those created by individual higher education institutions and more broadly) and the employability skills literature. This analysis results in a UCL bespoke employability framework for use within UCL faculties and departments. This will give UCL a common language with which to discuss employability and enable the development of tools to analyse our curriculum from an employability lens. We will therefore be able to surface and articulate the employability benefits of our programmes whilst also engaging in conversations with programme leads about how we can improve the employability provision for our students.

Introduction

This research led employability framework is the result of an extensive literature review of future skill requirements of global recruiters, attributes required for career success as well as best practice examples from across the sector. Many studies (York and Knight, 2006; Artess et al, 2016) have emphasised the complexity of employability as a concept, which is one of the reason whys a UCL employability framework has been developed.

This framework will be used with programme leads to identify employability skill gaps in programmes and plan how to fill those gaps. Working towards fulfilling the UCL 2034 ambitions our aim is to ensure our programmes prepare students to contribute positively to

global society and our students are the most sought after by employers. Since all UCL students interact with the curriculum this is the most effective way to reach all students.

This project is mentioned in the 'UCL Careers Strategic Operating Plan 2019 – 2023'. Strategic Objective 1 is to “ensure all students and recent graduates and supported to maximise their chances of career success”. As part of that in 2019 -20 we will “research future skill requirements of global recruiters and attributes required for career success ready for pilot in 20/21 where in a minimum of 3 departments we will identify employability skill gaps in programmes. In 2021/22 we will roll out the skill gap analysis to additional departments. In 2022/23 we will plan the scale-up of skill gap analysis to all taught departments. Since Covid-19 it will also be used in helping departments improve and articulate their PGT and UG finalist offer given many students will not have had internship opportunities in summer 2020.

Why do we need a UCL specific employability framework?

HEA (2013) now AdvanceHE recognise that the first step in embedding employability is to have an institutional definition which includes all stakeholders and is explicit at an institutional and programme level and is shared with students. Once you have an institutional point of reference you can then move onto auditing the curriculum, taking action and then evaluating new measures put in place. The whole process to creating an institutional approach to employability is outlined by Cole and Tibby (2013) and can be seen below.



Figure 1: Developing an institutional approach to employability (Cole and Tibby, 2013, p.10)

Although there are many existing models of employability which we will explore later in this paper there is not one that takes into consideration UCL's unique nature and therefore we will seek to adapt these models to our purposes. We will consider some of the important aspects around the UCL context below.

Method/Project Plan

- Collate research on UCL context for an employability framework
- Conduct literature review in two parts:
 - Part 1 - existing employability frameworks
 - Part 2 - literature on key areas of employability as identified in part 1
- Draft UCL Employability Framework based on UCL context and literature review
- Test framework with key stakeholders
- Develop tools to use framework with academic colleagues

UCL Context

Connected Curriculum/ Connected Learner

The Connected Curriculum is UCL's educational framework and is made up of 6 dimensions with the core principle that "students learn through research and enquiry". Dimension four is the most relevant here as this recommends that students should "connect academic learning with learning with skills for the workplace" (Fung, 2017)

This has recently been brought to the fore with communications to current and prospective students around education in 2020/21 given Covid-19:

"Being connected is a key part of a UCL education: connected with our research and world-leading staff, connected across our disciplines, connected with our alumni and employers and connected with each other."

"This pandemic is likely to change the way the world interacts for ever; we'll be supporting you to acquire the **skills, communications tools and networks** that you will need to navigate your future."

The UCL Commitment for Academic Year 2020/21

This framework is intended to help academic staff in collaboration with UCL Careers work out what that means for their students.

UCL have also been keen to place an emphasis on "student active participation" for teaching which is noted in the 'Connected Learning Baseline' (UCL, 2020a). This sets out the minimum expectations for connected learning for all taught programmes at UCL.

"Students should be encouraged to develop their understanding, practice skills, or produce content (e.g., self-assessments, peer review, group discussions or interactive scenarios), in order to maintain motivation and active engagement in the learning process."

UCL Connected Learning Baseline

The UCL (2020) commitment for academic year 2020/21 emphasises the following skills "creativity, collaboration and an entrepreneurial spirit across our comprehensive disciplines".

These activities often lend themselves well to developing student's employability but we must ensure this is also made explicit to students and they are given chance to reflect on these skills in order to maximise the employability benefits (Rust, 2016).

UCL Core Values

The UCL Commitment for Academic year 2020/21 also mentions the core UCL values "humanity, sustainability, excellence, equity, and community". The full list from the UCL 2034 strategy can be found below:

- *Commitment to excellence and advancement on merit*
- *Fairness and equality*
- *Diversity*
- *Collegiality and community building*
- *Inclusiveness*
- *Openness*
- *Ethically acceptable standards of conduct*
- *Fostering innovation and creativity*
- *Developing leadership*
- *Environmental sustainability*

It is important to consider the UCL employability framework with these values in mind as part of UCL's founding principles and most definitions of employability include values/personal qualities.

UCL Sustainability

One core value mentioned above is 'Environmental Sustainability' which also links to a Principal Theme in the UCL 2034 strategy of 'Addressing Global Challenges' including 'Sustainable Cities'.

Sustainable UCL also have some ambitious targets for 2024 for UCL including offering every student the opportunity to "study and be involved in sustainability" so clearly this is an essential element to consider:



Figure 2: Sustainable UCL, Headline Commitments for 2024 (2020)

The alliance for sustainability leadership in education (EAUC, 2018) identified through its Future Business Council, that an understanding of sustainable development was one of the biggest skill gaps for a typical graduate. They argue that we must focus on the broader definition of sustainable development which involves balancing economic, social and environmental concerns so that development can take place now without affecting the progression of future generations.

Other institutions have tried to embed sustainability into curriculum by connecting it to employability. Winfield and Ndlovu (2019) present an interesting case study around how sustainability was embedded into the curriculum at Nottingham Business School at Nottingham Trent University in a move to deliver the university's strategic goals of improving graduate prospects as well as the UN sustainable development goals (SDGs). Sustainability was introduced through a "Leadership and Employability" capstone module where students completed a synoptic assessment reflecting on their previous studies, work experience etc and completed a group project focussed on sustainability and the SDGs.

UCL Grand Challenges/Interdisciplinarity/Cross-Disciplinary Working

Linked to the previous section on sustainability it is important to recognise the UCL Grand Challenges which "convene and cultivate cross-disciplinary collaborations that explore interconnected solutions in six areas" including sustainable cities. As part of the grand challenges UCL is keen on bringing researchers together from different disciplines and promotes cross-disciplinary working. This is also evident in courses such as the BASc which promote the idea that in order to solve real world problems we need to have an interdisciplinary approach. This will therefore also be an important factor in a UCL employability framework.

London's Global University

UCL has been developing the concept of 'global citizenship' for many years and 3 of the 6 principal themes in the UCL 2034 strategy are concerned with this: 'Global Challenges', 'London's Global University' and 'Delivering Global Impact'. UCL also has a Global Engagement Strategy to assist with the theme 'Delivering Global Impact' as well as a Global Engagement Office (GEO) to help put UCL's knowledge and ideas to work in the world.

The UCL 2021 Undergraduate Prospectus (p9/10) also highlights this to our prospective students:

"We are here to further your knowledge, develop your skills of analysis and problem-solving and give you a truly global outlook that draws on diverse cultural perspectives."

"Learning as part of an international community of great minds, you will develop the cultural fluency and global outlook that are prized by employers."

In addition the UCL Global Citizenship Programme (currently paused for 2020/21 in order to develop a new programme in 2021/22) brings together students from across UCL to explore the biggest global challenges.

The programme is described as follows "Our world is now more connected than ever before. But it also faces big challenges, such as infectious diseases, rapid urbanisation, and

sustainability. To solve these global challenges, we need global citizens, and the Global Citizenship Programme is designed to train you to become one. Through the work and activities you do on the programme you'll gain these essential qualities of global citizenship: an understanding of the complexity and challenges of our interconnected world, a strong sense of social, ethical and political responsibility, skills like teamwork and leadership, and being able to solve problems through innovation and entrepreneurship." (UCL, 2020b)

The theme 'London's Global University' ("in London of London, for London") also highlights the impact of UCL being based in a city that is a centre of government, policymaking and knowledge-based professions. It is important to think about our links with external employers and organisations in ensuring that we prepare our students to make a difference "to the life of the city and its role in global society" (UCL, 2020c).

UCL Careers Skills Hub

Currently UCL Careers have developed a 'Skills Hub' which pulls together resources for students on the main attributes and capabilities that employers state they are looking for using QS (2019) and settled on the following skills:

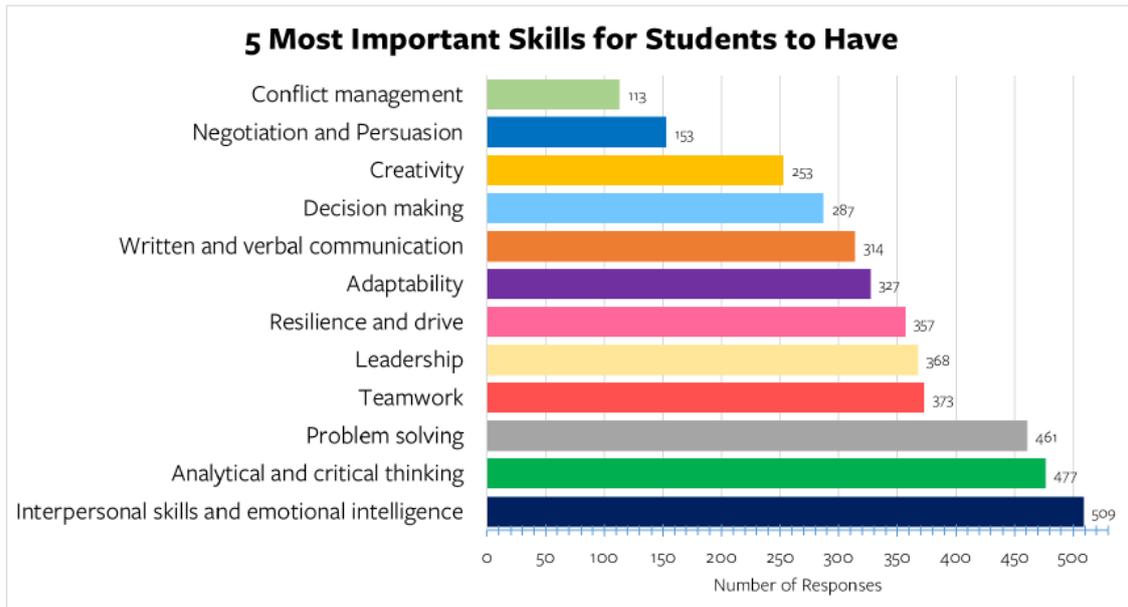
Interpersonal, Problem solving, Teamwork, Analytical and Critical Thinking, Leadership, Written and verbal communication, Decision making, Creativity, Adaptability, Resilience and Drive, Commercial Awareness, Digital skills

UCL Library

UCL Library have also developed a library skills framework based on existing information literacy frameworks (Association of College & Research Libraries (ACRL), A New Curriculum for Information Literacy (ANCIL), Society of College, National and University Libraries (SCONUL). Skills are divided into 5 areas: pre-arrival, getting started, assignments, independent research and beyond university. There are 5 skill areas: strategy and understanding, searching and inquiry, authority and evaluating, managing and integrity, communicating and sharing.

Students' Union UCL

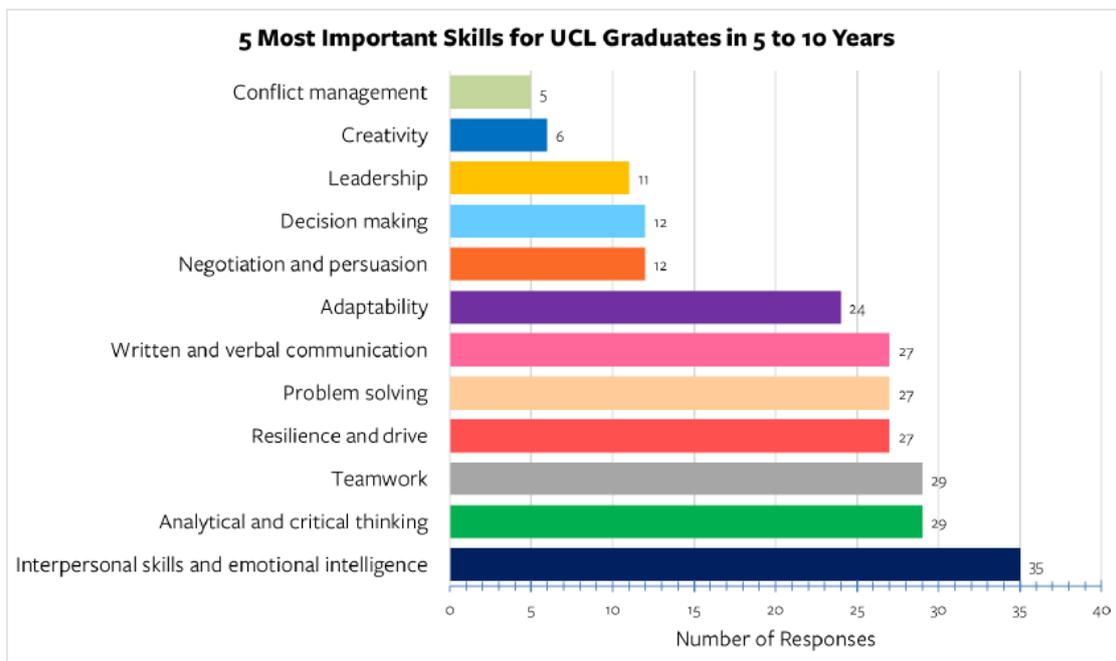
The Students' Union UCL have also conducted skills training for students and completed some research in this area. In research conducted by the Students' Union UCL and UCL Careers for a proposal for a skills development project 776 students gave their views on the 5 most important skills they thought they should have:



This data is based on 776 responses. Students were required to pick five skills.

Fig 3: Students view - 5 most important skills for students to have, Students' Union UCL (2019)

45 employers also gave their views on the 5 most important skills for UCL graduates in 5 to 10 years:



This data is based on 45 responses. Employers were required to pick five skills.

Fig 4: Employer view - 5 most important skills for UCL graduates to have in 5-10 years, Students' Union UCL (2019)

Literature Review Part 1 - What is employability?

Due to the confusion over the term “employability” there are numerous papers that seek to define employability and the skills that make up employability.

A common model is the USEM model from Yorke and Knight (2006):

- Understanding.
- Skills. (The term is used here because of its significance in political and employment circles, but there is a real danger of its being given a simplistic and unhelpful interpretation. A term such as 'skilful practice' is probably more appropriate.)
- Efficacy beliefs, students' self-theories and personal qualities. Of critical importance is the extent to which students feel that they might 'be able to make a difference' – not every time, but in a probabilistic way.
- Metacognition, encompassing self-awareness regarding the student's learning, and the capacity to reflect on, in and for action⁴.

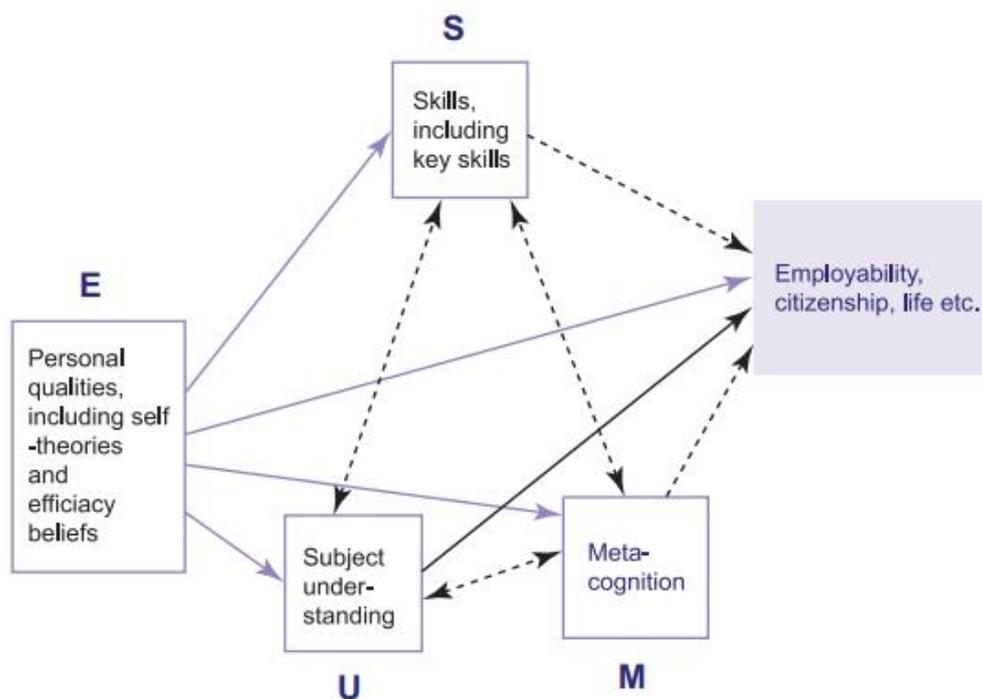


Figure 5: USEM Model, Yorke and Knight (2006) p5

Chatterton and Rebbeck (2015) also pulled together an employability map for Jisc including lifelong learning, lifelong employability, authentic experience, basic work-readiness, professional skills and knowledge, high level capabilities and attributes.

There are seven dimensions for the 'employable student':

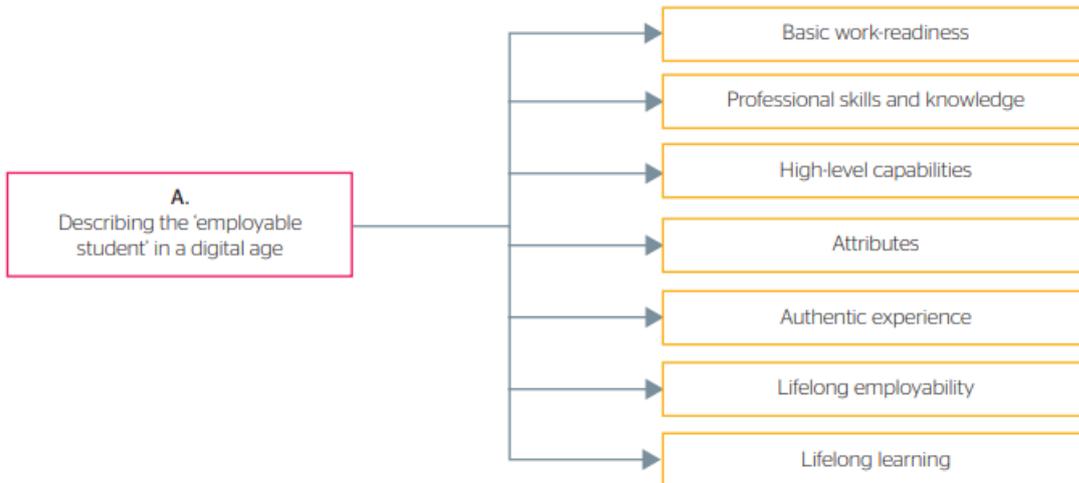


Figure 6: 7 dimensions of the 'employable student', JISC (no date) p7

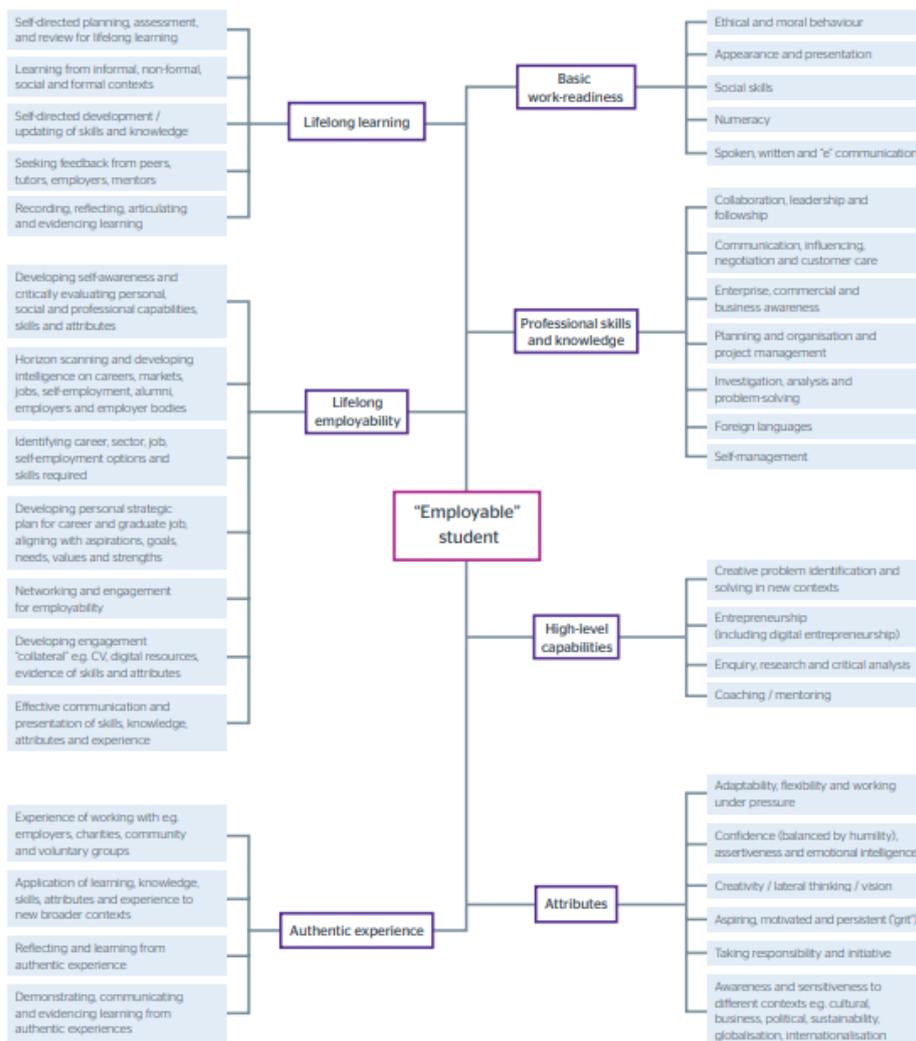


Figure 7: Jisc Employability Map, Chatterton and Rebbeck (2015) p29

More recently Artess et al (2016) reviewed the employability literature from 2012 – 2016. They chose to use the 10 areas of focus in HEA’s (2013) Framework for Embedding Employability in Higher Education (see below) as sub-headings to guide their literature review combining 6 of the areas related to graduate behaviours, attributes and skills. The areas of focus are:

1. Graduate behaviours, attitudes and skills
 - a. Attributes and capabilities
 - b. Specialist technical and transferable skills
 - c. Knowledge and application
 - d. Behaviours qualities and values
 - e. Self, social and culture awareness
 - f. Confidence, resilience and adaptability
2. Experience and Networks
3. Enterprise and Entrepreneurship
4. Internationalisation
5. Reflection and articulation
6. Career guidance and management



Figure 8: Framework for Embedding Employability in Higher Education (HEA, 2013)

University Employability Frameworks

Southampton - Graduate Capital Model

The University of Southampton Careers and Employability Service uses the ‘Graduate Capitals Model’ from Tomlinson (2017) to conceptualise employability. Instead of focussing on skills it provides a multi-dimensional account of the resources graduates draw upon when transitioning to the labour market.

There are five capitals in Tomlinson’s model: Human Capital (graduate level knowledge and skills), Social Capital (nurturing and building networks), Cultural Capital (connecting and tailoring your profile to an organisation’s values and culture), Psychological Capital (developing resilience, coping with setbacks, developing contingency plans) and Identity Capital (developing a career identity, understanding how experiences, values and achievements link to that identity or professional profile).

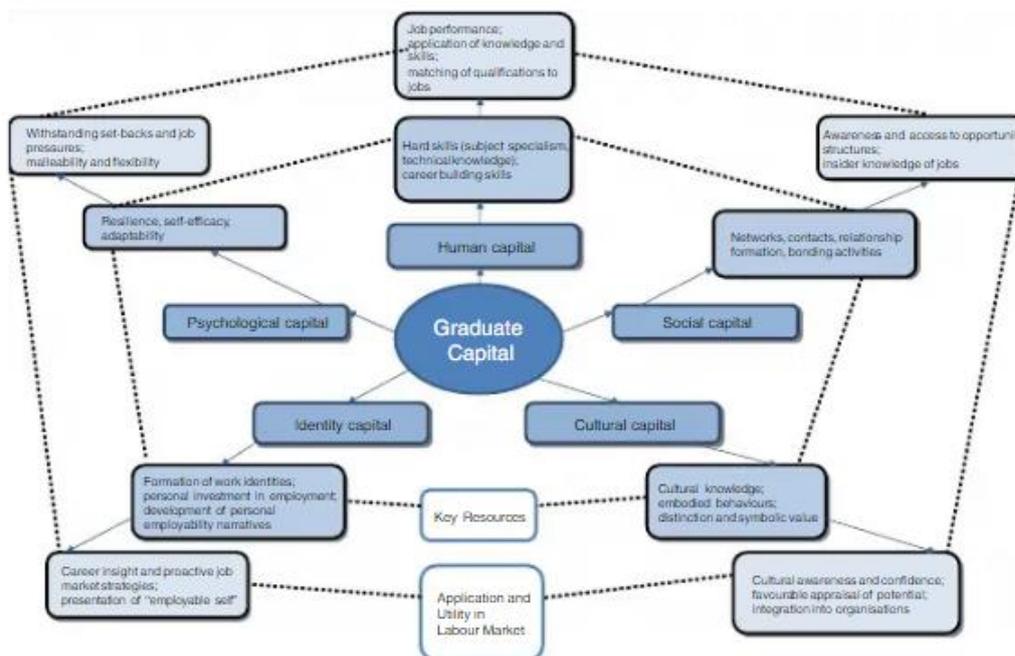


Figure 9: Graduate Capital Model, Tomlinson (2017) p340

The University of Southampton (2020) have also developed a useful set of learning outcomes based on this model which is available via their website. For example:

“Graduates with well-developed Social Capital will be able to:

- Describe the key influencers in their field

Graduates with well-developed Cultural Capital will be able to:

- Assess the culture of key organisations in their chosen sector”

University of Southampton (2020) have used it as the cornerstone for the creative design and planning processes for modules and programmes. They have been upfront with students in displaying the model week by week and showing them the areas of the framework they are covering in class so the students could map how they were developing the attributes they were developing to help their employability.

Kings – KASE Framework of Extracted Employability

Daubney (2020) outlines the approach at Kings using the KASE framework to help programme leaders 'extract' and surface the employability benefits of their courses and articulate these to students. The KASE Framework of Extracted Employability includes more than 80 attributes and over 200 different transferable skills.

KASE Framework (Knowledge, Attitudes, Skills, Experience):

Knowledge - the ability to learn in-depth and to develop lifelong learning agility

Attributes - Qualities, values, behaviours

Skills - Subject-related, transferable: cognitive, practical, communication, specialist, career management

Experience - applying knowledge, attributes and skills gained and developed through academic and co-curricular contexts

Open University

The Open University's Employability Framework (Cooke and Meade, 2020) was designed for embedding and making explicit employability within the curriculum and provides greater transparency in how employability is developed through a student's journey. The framework was then used to map the employability skills and attributes included in undergraduate programmes by using a skills matrix (see below).

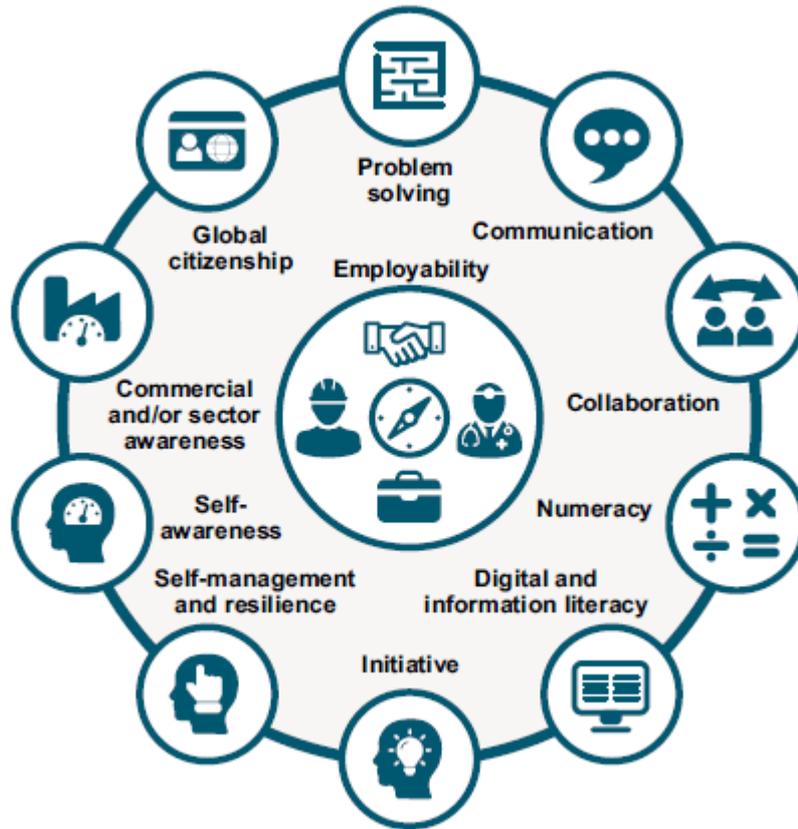


Figure 10: The Open University's Employability Framework, Cooke and Meade (2020) p59

Qualifications	Module	Problem solving	Communication	Collaboration	Numeracy	Digital and information literacy	Initiative	Self-management and resilience	Self-awareness	Commercial and/or sector awareness	Global citizenship
Qualification 1	Module 1	Well met	Well met	Well met	Well met	Well met	Well met	Well met	Well met	Well met	Well met
	Module 2	Well met	Well met	Well met	Well met	Well met	Well met	Well met	Well met	Well met	Well met
	Module 3	Well met	Well met	Well met	Well met	Well met	Well met	Well met	Well met	Well met	Well met
Qualification 2	Module 1	Well met	Well met	Well met	Well met	Well met	Well met	Well met	Well met	Well met	Well met
	Module 2	Well met	Well met	Well met	Well met	Well met	Well met	Well met	Well met	Well met	Well met
	Module 3	Well met	Well met	Well met	Well met	Well met	Well met	Well met	Well met	Well met	Well met
	Module 4	Well met	Well met	Well met	Well met	Well met	Well met	Well met	Well met	Well met	Well met
etc	etc										

Well met
 Partially met
 Not met

Figure 11: Mapping The Open University Mapping Employability Skills, Cooke and Meade (2020) p59

University of Central Lancaster (UCLan) - Career EDGE

Dacre Pool & Sewell (2007) identified five critical elements to employability in their Career EDGE framework which is used at UCLan: Career Development Learning; Experience (Work & Life); Degree Subject Knowledge, Skills & Understanding; Generic Skills; and Emotional Intelligence.

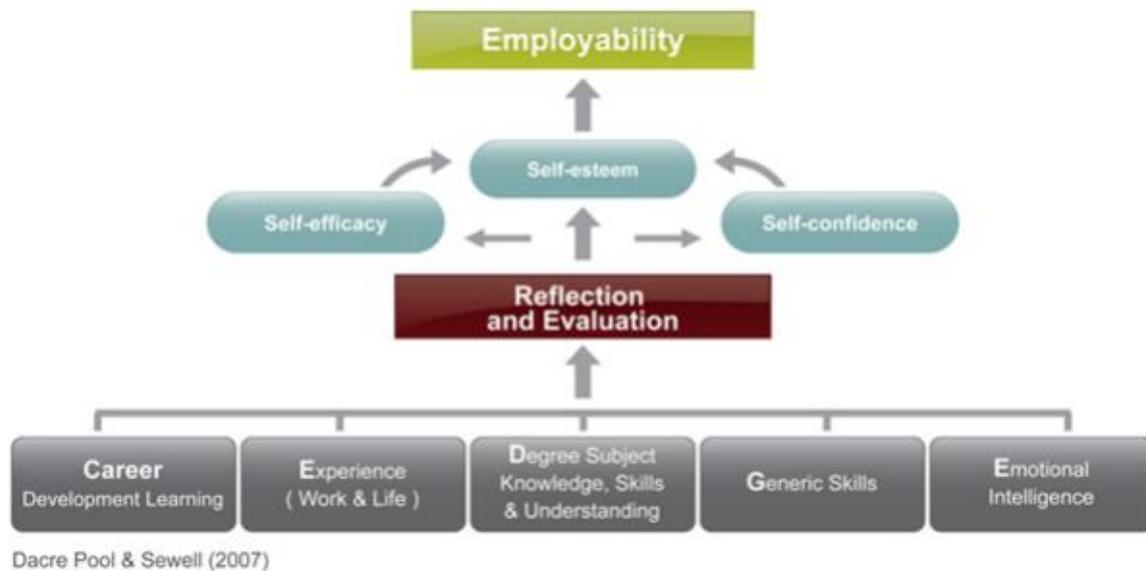


Figure 12: Career Edge Model, Dacre Pool & Sewell (2007)

University of Edinburgh (2016) also use the CareerEDGE model to help them define employability for the institution.

University of Aberdeen: Employability Development Framework

The University of Aberdeen have 6 strands to their framework designed ensure a common understanding of employability encompassing formal academic curriculum and co-curricular activities.

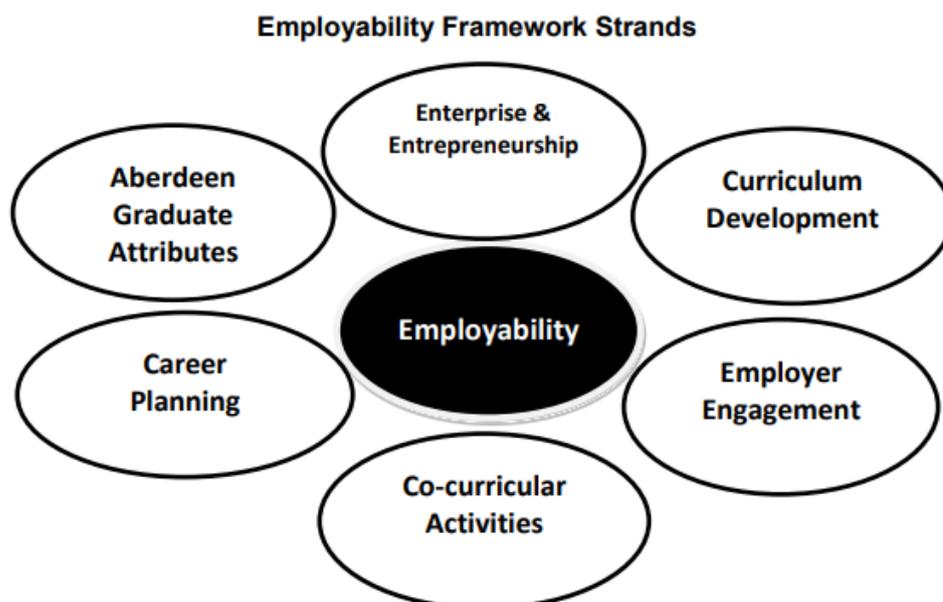


Figure 13: University of Aberdeen Employability Development Framework, Perkins (2016)

Literature Review Part 2 – The components of employability

The HEA (2013) employability framework is the main model which will be used to base the literature review upon since it is used in the Artess et al (2016) paper. More recent literature will be examined with the aim to pull together a UCL employability framework.

Graduate Behaviours, Attitudes and Skills

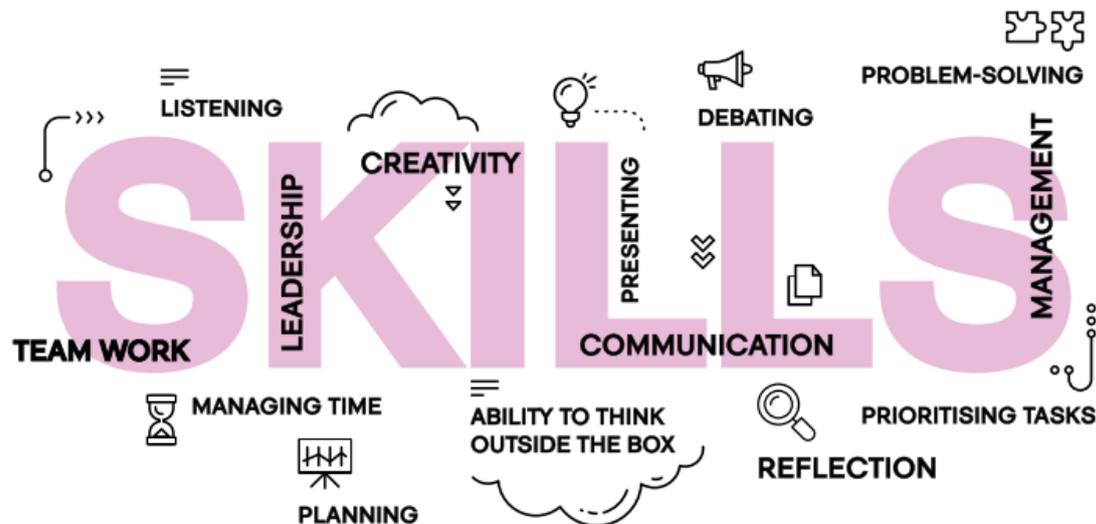


Figure 14: Transferable skills, CBI 2019.

The UCL Connected Curriculum dimension four recommends that students should “connect academic learning with learning with skills for the workplace” (Fung, 2017) but there is not always consensus about what these skills are. Currently UCL Careers have developed a ‘Skills Hub’ which pulls together resources for students on the main attributes and capabilities that employers state they are looking for using QS (2019) and settled on the following skills:

Interpersonal, Problem solving, Teamwork, Analytical and Critical Thinking, Leadership, Written and verbal communication, Decision making, Creativity, Adaptability, Resilience and Drive, Commercial Awareness, Digital skills

The QS Global Skills Gap Report (2019) asked graduate employers and students to rank the importance of the following 15 skills: Leadership skills; ability to work in a team; communication skills; problem-solving skills; data skills; flexibility/adaptability; subject knowledge; interpersonal skills (relates well to others); technical skills; organizational skills; creativity; commercial awareness; resilience/dealing with conflict; negotiating skills; and language skills.

Similarly the ISE (2019) in their annual development survey report on UK employers skill gaps for graduates this time choosing 25 skills to measure: Resilience; Managing up; Leadership; Commercial awareness; Dealing with conflict; Self-awareness; Career

management; Job-specific technical skills; Negotiation/influencing skills; Emotional intelligence; Business appropriate communication; Time management; Taking responsibility; Listening; Presentation skills; Data handling/data analysis; Problem-solving; Excel skills; Interpersonal skills; Staying positive; Writing; Teamwork; Dressing appropriately; IT/digital skills; Numeracy.

Although focussed on schools and colleges rather than higher education it is also worth noting the Careers and Enterprise Company identified eight transferable skills and broke them down into 15 steps in their “Skills Builder Framework” (Ravenscoft, 2020). They focussed on listening, presenting, problem solving, creativity, staying positive, aiming high, leadership and teamwork.

Blackmore, et al (2016) reviewed the literature to identify the top three skills which employers look for from graduates in a range of global labour markets. His findings show some common themes in terms of what all employers look for in various locations:

Date of Study	Country / Region	Number of employers interviewed	Preferred Skills (Top Three)	Reference for Study
2013	South Africa	80	1. Willingness to learn (84%) 2. Problem solving (83%) 3. Team working (81%).	South Africa Graduate Recruiters Association (SAGRA) SAGRA Employer and Candidate Survey (2013)
2008	Cambodia	220	1. Communication 2. Analytical 3. Problem solving	Cambodian Federation of Employers and Business Associations (CAMFEBA) Youth and employment: Bridging the Gap (2008)
2008	UK	223	1. Communication skills (86%) 2. Team-working (85%) 3. Integrity (83%)	Council for Industry and Higher Education (CIHE) Graduate employability: What do employers think and want? (2008)
2014	USA	161	1. Ability to make decisions and solve problems 2. Verbal communication 3. The ability to obtain and process information	National Association of Colleges and Employers (NACE) Job Outlook 2014: Spring Update (2014, p.8)
2010	Europe	7036	1. Teamwork 2. Sector-Specific 3. Communication	European Commission Employers Perception of Graduate Employability (2010, p.12)

Table 1. Preferred employability skills from around the world

Figure 15: Preferred employability skills from around the world (Blackmore et al, 2016. P24)

The Australian Government (2013) developed a Core Skills for Work Developmental Framework (CSfW) to describe the non-technical skills, knowledge and understanding that are required for successful participation in work, self-employment or volunteering.

The CSfW describes performance in ten Skill Areas, grouped under three Skill Clusters:

Cluster 1 - Navigate the world of work

- a. Manage career and work life
- b. Work with roles, rights and protocols

Cluster 2 - Interact with others

- a. Communicate for work
- b. Connect and work with others
- c. Recognise and utilise diverse perspectives

Cluster 3 - Get the work done

- a. Plan and organise
- b. Make decisions
- c. Identify and solve problems
- d. Create and innovate
- e. Work in a digital world

Additionally, it is possible to use the QAA (no date) Subject Benchmark statements and Rees et al (2006) Student Employability Profiles as a guide to the transferable skills that students from each discipline area should be developing over the course of their degree. These are often similar across disciplines for example taken from the QAA Subject Benchmark for Sociology (2019):

“4.4 Sociology students have access to the opportunity to develop further transferable skills in the following areas:

Learning and study skills, written, visual and oral communication skills in a variety of contexts and to different types of audiences, computer-aided statistical and other quantitative techniques for analysing quantitative data, computer-aided techniques for storing, collating and analysing qualitative data, information-retrieval skills in relation to primary and secondary sources of information, digital and IT skills, skills of time planning and management, independent working and collaborative group work skills, the ability to assess and understand their own strengths and weaknesses, and to take action to improve and enhance their capacities.”

Here is another example from the QAA Subject Benchmark for Chemistry (2019):

Professional skills

5.7 In bachelor's degree with honours courses, students develop:

• communication skills, covering both written and oral communication with a variety of audiences • skills in the employment of common conventions and standards in scientific writing, data presentation, and referencing literature • problem-solving skills, relating to qualitative and quantitative information • numeracy and mathematical skills, including handling data, algebra, functions, trigonometry, calculus, vectors and complex numbers, alongside error analysis, order-of-magnitude estimations, systematic use of scientific units and different types of data presentation • information location and retrieval skills, in relation to primary and secondary information sources, and the ability to assess the quality of information accessed • information technology skills which support the location, management, processing, analysis and presentation of scientific information • basic interpersonal skills, relating to the ability to interact with other people and to engage in teamworking • time management and organisational skills, as evidenced by the ability to plan and implement efficient and effective ways of working • skills needed to undertake appropriate further training of a professional nature • other relevant professional skills, such as business awareness.

Future of Work/Fourth Industrial Revolution Literature

The inclusion of “data skills” (including analysing and presenting data) in both the QS (2019) and ISE (2019) skills list gives a nod to the body of literature surrounding the future of work and the Fourth Industrial Revolution. Salesforce (2019) report that three quarters of hiring managers expect a growth in the need for skills in data analysis, data science, and software development. Something that is also affirmed by Batra et al (2019) as they indicate that one of the future of work’s key driver is technology, which they break down into artificial intelligence (AI), robotics, sensors and data. Interestingly Sigelman (2017, in Batra et al, 2019) points out that the technical roles of the future are likely to need an enhanced emphasis on the transferable skills of research, writing, problem-solving, teamwork and creativity. He states that “individuals and organisations who can master both technical and social skill sets could lead the way in the future of work (p6)”.

MIT (2019) refer more to attitudes required by the future workforce. They point out that continuous advances in technology mean that even if an employee is qualified when they walk in the door, their company might need people with different skills 12, 24, or 36 months down the road. In other words, the pace of innovation is predictable, but the direction isn’t—so what’s important is to build a workplace in which employees are willing and able to “upskill,” or add new proficiencies, on a just-in-time basis. Therefore, growth mind-set (Dweck, 2014), commitment to learning and development and flexibility are extremely important.

Similarly Bakshi et al (2030) looked at the skills that were most common among the occupations that had the greatest prospect of growing in the future i.e. least likely to be affected by automation and found the ability to learn (and train/teach others) ranked very highly along with decision making, creativity and systems thinking (the ability to identify, analyse and act on connections and feedback loops and make improvements). The following were the top 20 most important skills (definitions can be found via Pearson (no date)):

1 Judgment and Decision-Making Skills, 2 Fluency of Ideas Abilities, 3 Active Learning Skills, 4 Learning Strategies Skills, 5 Originality Abilities, 6 Systems Evaluation Skills, 7 Deductive Reasoning Abilities, 8 Complex Problem Solving Skills, 9 Systems Analysis Skills, 10 Monitoring Skills, 11 Critical Thinking Skills, 12 Instructing Skills, 13 Education and Training Knowledge, 14 Management of Personnel Resources Skills, 15 Coordination Skills, 16 Inductive Reasoning Abilities, 17 Problem Sensitivity Abilities, 18 Information Ordering Abilities, 19 Active Listening, 20 Administration and Management

Professional Body Skill Requirements/Competency Frameworks

As well as the QAA subject benchmarks we can use professional body standards to examine the transferable skills required of various professions. For example, the Engineering Council (2013) requires the following for their Chartered Engineers:

“Optimise the application of existing and emerging technology, Apply appropriate theoretical and practical methods to the analysis and solution of problems. Provide technical and commercial leadership. Demonstrate effective interpersonal skills. Demonstrate a personal

commitment to professional standards, recognising obligations to society, the profession and the environment.”

Similarly, the Association of Chartered Certified Accountants (ACCA, 2020) list the following competencies “ethics and professionalism”, “data, digital & technology”, “leadership & management” and stakeholder relationship management”. They also have additional “professional quotients” which they require of all ACCA qualified accountants: technical skills and ethics, creative, digital, emotional intelligence, experience, intelligence and vision. The Association of Chartered Accountants (ACA, 2018) keeps it simple with 7 key competencies:

Ethics and professionalism, Communication, Teamwork, Decision making, Problem solving, Adding value, Technical competence

The Solicitors Regulation Authority (2019) brings it down to the 4 key areas of 1) Ethics, professionalism and judgement 2) Technical legal practice 3) Working with other people 4) Managing themselves and their own work.

The Science Industry Partnership (2020) reported a need to upskill the life science sector workforce in digital, computational, data analysis and statistical skills to make the most of digitalisation. They also emphasised the need for leadership, communication, commercialisation/entrepreneurial skills to commercialise research and cross-disciplinary working.

Many organisations use competency frameworks to help map skills required for job descriptions/promotions and different jobs across the organisation. UCL’s (2020d) human resources team have used the SHL Universal Competency Framework (Bartram, 2011) for their ‘Career Framework for Professional Services Staff’ which includes the following:

SHL’s “Great Eight” Competencies	
Leading and Deciding	Takes control and exercises leadership. Initiates action, gives direction and takes responsibility.
Supporting and Co-operating	Supports others and shows respect and positive regard for them in social situations. Puts people first, working effectively with individuals and teams, clients and staff. Behaves consistently with clear personal values that complement those of the organisation.
Interacting and Presenting	Communicates and networks effectively. Successfully persuades and influences others. Relates to others in a confident and relaxed manner.
Analysing and Interpreting	Shows evidence of clear analytical thinking. Gets to the heart of complex problems and issues. Applies own expertise effectively. Quickly learns new technology. Communicates well in writing.
Creating and Conceptualising	Open to new ideas and experiences. Seeks out learning opportunities. Handles situations and problems with innovation and creativity. Thinks broadly and strategically. Supports and drives organisational change.
Organising and Executing	Plans ahead and works in a systematic and organised way. Follows directions and procedures. Focuses on customer satisfaction and delivers a quality service or product to the agreed standards.
Adapting and Coping	Adapts and responds well to change. Manages pressure effectively and copes with setbacks.
Enterprising and Performing	Focuses on results and achieving personal work objectives. Works best when work is related closely to results and the impact of personal efforts is obvious. Shows an understanding of business, commerce and finance. Seeks opportunities for self-development and career advancement.

Figure 16: SHL ‘Great Eight’ Competencies, Bartram (2011) p7

Graduate employers such as PwC also have their own versions of this.



Figure 17: The PwC Professional, PwC (2018-2020)

We can map the above literature onto Artess et al's (2016) and HEA (2013) categories as follows:

Graduate behaviours, attitudes and skills	QS	ISE	Subject benchmark statements	Professional Bodies/Competency Frameworks	Future of Work
Attributes and capabilities	Leadership skills; ability to work in a team; communication skills; problem-solving skills; flexibility/adaptability; interpersonal skills (relates well to others); organizational skills; creativity; negotiating skills;	Managing up; Leadership; Dealing with conflict; Self-awareness; Negotiation/influencing skills; Business appropriate communication; Time management; Taking responsibility; Listening; Presentation skills; Problem-solving; Interpersonal skills; Writing; Teamwork;	Learning and study skills, written, visual and oral communication, information-retrieval skills in relation to primary and secondary sources of information, skills of time planning and management, independent working and collaborative group work skills, referencing literature, problem-solving skills, relating to qualitative and quantitative information, presentation, basic interpersonal skills, relating to the ability to interact with other people and to engage in teamworking	Leading & Deciding, Supporting & Co-operating, Interacting & presenting, Analysing & interpreting, Creating & Conceptualising, Organising & Executing, Adapting & Coping, Enterprising & performing Apply appropriate theoretical and practical methods to the analysis and solution of problems. Provide technical and commercial leadership. Demonstrate effective interpersonal skills. Working with other people Managing themselves and their own work. Stakeholder relationship management Creative Communication, Teamwork, Decision making, Problem solving,	Research, writing, problem-solving, teamwork and creativity, Judgment and Decision-Making Skills, Fluency of Ideas Abilities, Active Learning Skills, Learning Strategies Skills, Originality Abilities, Systems Evaluation Skills, Deductive Reasoning Abilities, Complex Problem Solving Skills, Systems Analysis Skills, Monitoring Skills, Critical Thinking Skills, Instructing Skills, Management of Personnel Resources Skills, Coordination Skills, Inductive Reasoning Abilities, Problem Sensitivity Abilities, Information Ordering Abilities, Active Listening,
Specialist	Data skills;	Excel skills;	Computer-aided	Optimise the application	Data analysis, data science,

technical skills	technical skills; language skills.	IT/digital skills; Numeracy; Data handling/data analysis; Job- specific technical skills;	statistical and other quantitative techniques for analysing quantitative data; computer-aided techniques for storing, collating and analysing qualitative data, digital and IT skills,	of existing and emerging technology Technical legal practice Data, digital & technology	and software development
Knowledge and application	Subject knowledge; commercial awareness;	Commercial awareness	Common conventions and standards in scientific writing, numeracy and mathematical skills, business awareness.	Demonstrate a personal commitment to professional standards, recognising obligations to society, the profession and the environment	Education and Training Knowledge, Administration and Management
Behaviours, qualities and values		Emotional intelligence	Skills needed to undertake appropriate further training of a professional nature	Ethics, professionalism and judgement emotional intelligence, intelligence and vision. Adding value	Commitment to learning and development
Self, social and culture awareness		Dressing appropriately; Career management;	The ability to assess and understand their own strengths and weaknesses, and to take action to improve and enhance their capacities		
Confidence, resilience and adaptability	resilience/dealin g with conflict;	Staying positive; Resilience;			Growth mind-set, flexibility

Figure 18: Mapping findings of skills literature review into categories used by Artess et al (2016) and HEA (2013)

Summary of Graduate Skills, Attributes & Knowledge

After reviewing the above literature on skills requirements by employers from the ISE & QS, by QAA, by professional bodies and reports on the future of work. It can be synthesised into the following key areas using headings of skills, attributes and knowledge for ease.

Skills	
	Collaboration - written and verbal communication/teamwork/interpersonal
	Leadership & management - of self/others/resources/projects/time/organisation
	Research, problem solving & decision making – systems thinking/analytical and critical thinking/information literacy
	Creativity
	Technical – IT/Digital/Excel/Data analysis
Values/Attributes	
	Resilience and drive
	Adaptability/agility
	Ethics
	Sustainability
Knowledge	
	Commercial awareness
	Subject/industry specific knowledge

Figure 19: Summary of graduate skills, attributes & knowledge

Experience, Networks & Identity Formation

Hooley et al (2016), Jackson (2016) and others have argued that our concept of employability should extend beyond the skills-list approach, which is too narrow and does not fully capture the complexity of employability.

Evidence suggests that educators should incorporate experiential learning and interaction with employers to encourage students to gain insight into the professions. Practical work experience is fundamental for graduate employability, employment prospects (Shury et al 2017) and shaping identity (Jackson, 2016).

Jackson (2016) argues for the redefining of graduate employability by embracing pre-professional identity (PPI) formation. This involves an understanding of and connection with the skills, qualities, conduct, culture and ideology of a student's intended profession. She draws upon the 'communities of practice' model to argue a student makes sense of his/her intended profession through communities such as professional associations, student societies, careers services and employers.

Lowe et al (2021) also highlight the importance of graduates developing an understanding of professional culture and identity and have worked to understand where and how development of professional identity occurs and what activities might best support this development. At the University of Sydney engineering students engage in the 'Professional Engagement Programme' which consists of a specified number of hours of professional engagement activities each year throughout the course of their degree ranging from site visits, interviewing professionals, conferences, mentoring and other personal development activities. After each activity students record their participation and submit a structured

reflection. These reflections were later analysed to find the types of activities that lead to greater understanding of engineering practice and culture.

Reflections were coded against the Engineers Australia Competency Standards and Blooms taxonomy to assess the level of learning evidenced. They found that generally the activity types that have reflections skewed towards higher Bloom levels are those that involve project activities. With regards to competencies; for effective team membership and team leadership the second highest activity was engineering research projects. Recognising that finding placements for students is difficult, this analysis suggests that activities that might work best are mentoring by a professional engineer, service within community associations and independent visit to engineering workplaces which developed a strong tendency towards individual initiative and judgement. They indicated that this tool could also be used for individual skills gap analyses and suggesting activities. For example, if a graduate engineer has a competency gap with regards to professional conduct then either or both of interviewing professional engineers and finding a good mentor might be the most effective.

Enterprise and Entrepreneurship

The development of enterprise and entrepreneurial skills in students has been a focus of policy making and curricular development over many years. This has increasingly been aligned to employability. “The skill sets and attributes now characterised as representing an enterprising disposition – creativity, imagination, adaptability, negotiation, persuasion, leadership are largely cognate with recognised employability skills and attributes and are increasingly as relevant for STEM, arts, humanities and social science students as they are business schools (Norton and Dalrymple, 2020, p7).

The QAA (2018) define enterprise as “the generation and application of ideas, which are set within practical situations during a project or undertaking.... It combines creativity, originality, initiative, idea generation, design thinking, adaptability and reflexivity with problem identification, problem solving, innovation, expression, communication and practical action” (p.7).

Entrepreneurship Education is defined as the application of enterprise behaviours, attributes and competencies into the creation of cultural, social or economic value. This can, but does not exclusively, lead to venture creation (QAA, 2018, p7)

Some of our graduates will choose to set up their own businesses. Statistics show that 5% of UK graduates were self-employed 6 months after graduation according to HESA, 2017. However, many more will be working for new start-ups, micro-businesses or small and medium sized businesses. As the QAA (2018) point out these are typically more volatile environments than larger businesses, so we need to ensure we develop enterprise competencies in our students when change is expected in the workplace.

Many reports have also noted the rise in self-employment and “gig workers”. For example the World Economic Forum (2018) reports how businesses are set to increase their use of contractors doing task focussed work, with many organisations intended to engage workers more flexibly rather than relying on permanent employees.

Artess et al (2016) note that enterprise education that enhances employability requires a different approach to traditional learning and teaching pedagogies. A common way of doing this is to introduce client consultancy projects as investigated by O’Leary (2015). These are

projects undertaken on behalf of clients involving small groups of students working in teams as consultants. They are used in some departments at UCL such as [BASc](#) and [STeAPP](#). O'Leary argued that enterprise and employability can be improved through these projects by focussing on the three 'Cs': content (relevant knowledge and information networks), capability (direct application in an employment context) and character (working alone and in teams).

Internationalisation/Global Citizenship

International mobility and overseas study has often been reported to make a graduate more employable (Fielden, 2008 (in Diamond et al, 2008)). It can develop language skills as well as student's self-efficacy and inter-cultural understanding (Jones, 2013). However, gaining overseas experience is not the only way to build global competence in graduates.

Many employers such as PwC (2020) look for 'global acumen'. PwC explain the importance of this by stating "in a continually complex and changing world, you'll need to operate and collaborate effectively, with a mind-set that transcends geographic and cultural boundaries". They encourage graduates to ask themselves "Do you consider a broad range of perspectives in your thinking? Do you embrace and see opportunity in change? Can you bring fresh insights to our clients and PwC?"

Diamond et al (2008) explain that attitudes of graduates and leaders can play an important role in their global employability. They surveyed recruiters and found many used the term global mindset to describe an individual whose outlook naturally considers wider global influences, and who sees themselves in relation to others around them. They found that attributes such as openness, curiosity and innovation were integral as well as beliefs and values towards colleagues, clients and the wider community. Recruiters wanted graduates who could consider issues from a variety of perspectives. Cultural agility/dexterity was also found to be important and was described as the ability to understand different cultures and be able to work with them effectively. There is also a knowledge element with global leaders needing specific knowledge about global affairs and how global politics shapes our lives.

Global citizenship is about connecting studies with the world outside of university and to students' individual identity (Bourn, 2015) and therefore is a key aspect of employability.

Career guidance and decision-making

The Organisation for Economic Development (OECD) (2004) define career guidance broadly to describe interventions that support individuals to consider their future and the possible educational and occupational routes. Having a career plan has been shown to have helped with positive graduate outcomes as well as career identity.

Shury et al (2017) indicate that 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.

Career decision making is also linked to development of a graduate identity as discussed previously in the section on work experience. In a study of 667 students Praskova et al (2015) explored career identity and how individuals consciously link their interests,

motivation and competencies with various job roles. Praskova et al explored the relationships between career construction, career identity and career exploration. They found that students who engaged in more career exploration and planning reported clearer career identity and these students had positive perceptions of employability and less career distress and anxiety.

At UCL Careers we measure students progress with having a career plan using the Careers Registration survey which is conducted at enrolment and re-enrolment. Students choose from several statements and we classify them as decide/plan/compete/sorted. 'Decide' being they don't know what they want to do yet, 'plan' meaning they have some ideas, 'compete' being that they are ready to apply for opportunities and 'sorted' meaning they have a job, further study or business plan confirmed (Cobb et al, 2019).

Reflection and articulation

The requirement for students to reflect upon their learning is embedded in course specifications, personal development planning processes and the Higher Education Achievement Report (HEAR) (Artess et al, 2016). Authors such as Kolb (1984) have models to help students with a process of looking back on learning.

The challenge often comes when students must articulate this learning to employers in job applications. Rust (2016) notes that students who are unable to articulate their strengths and weaknesses may not yet have become fully employable. The ability to read (and write about) oneself is a key element of employability. The CBI (2019) agree that self-awareness is a key element of work readiness in the modern world.

Eden (2014) notes how work-based learning will take students out of their comfort zones and students should be supported by discussing expectations before the experience as well as afterwards. Reflection and articulation in employability learning can be present-oriented, future- oriented, and retrospective (Artess et al, 2016; Schon, 1991). E-portfolios or diaries are useful for this purpose (Simatele, 2015).

UCL Employability Framework – UCL Pillars of Employability

Below is the resulting framework which has been created taking the above research into consideration. Please note that this is designed as a starting point for discussion and reflection on your programme. We are aware that all programmes will have a different take on each element of the framework. The bullet points in each section are examples rather than an exhaustive list. All of the pillars should be underpinned by reflection and articulation for the student to be able to effectively communicate their employability “assets” to an employer.

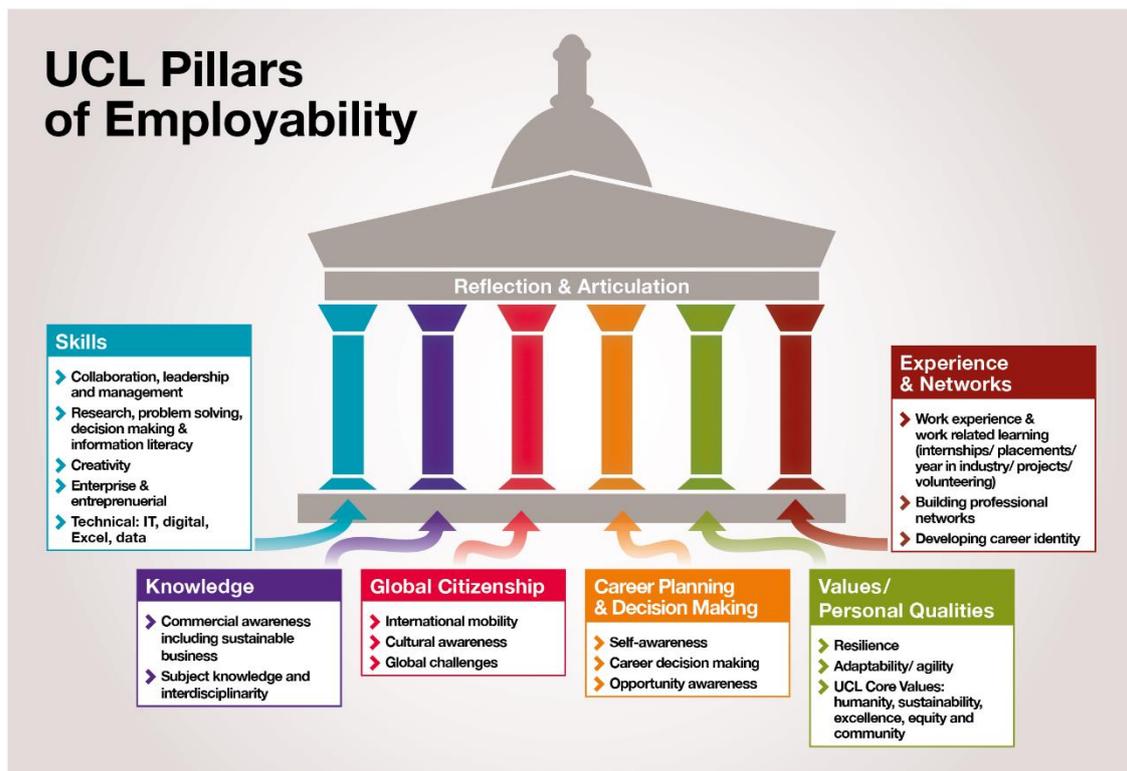


Figure 20: UCL Employability Framework “UCL Pillars of Employability”

Employability Curriculum Map

A curriculum map has been created which is inspired by the Royal Academy of Engineering (no date) Ethics Curriculum Map and the learning outcomes are developed from the Harvard University (no date) competency dictionary and Tomlinson (2017). This is to give a practical example of a tool that might be developed to use the framework in practice with programme leads.

It includes learning outcomes for each aspect of the framework which could be changed depending on QCF level. Inspired by QAA’s (2018) report on enterprise and entrepreneurship education it also includes different learning and assessment strategies to distinguish between learning ‘about’, ‘for’ or ‘through’:

- Example content/topics are aimed at knowledge acquisition. I.e. learning through the study of the topic is learning ‘about’
- a more practical goal, such as, learning how to be more entrepreneurial, learning how to write a CV or perform at interview is learning ‘for’

- learning 'through' the practical application of activity requires the development of enhanced reflection skills and relates to practical activities, such as projects or placements

The QAA (2018) argues that these distinctions are important, as typically learning 'about' entrepreneurship (and employability) is embedded into programmes where examinations are the dominant assessment method. Learning 'for' and learning 'through' typically require different assessment methods. These three areas should be thought through when mapping, developing and evaluating new programmes. UCL Arena have lots of advice around assessment and an assessment load model for innovative assessments that use media other than the written word.

Employability Curriculum Map

Example for undergraduate level (QCF levels 4-6)

	Learning Outcomes: Students should be able to...	Example Content/Topics (<i>Learning 'about'</i>)	Practical goals (<i>Learning 'for'</i>)	Process/Example techniques (<i>Learning 'through'</i>)
Skills				
Collaboration - written and verbal communication/teamwork/interpersonal	<ul style="list-style-type: none"> - Participate in a group project/activity to move the team toward the completion of goals - Analyse preferred role in a team - Demonstrate confidence to talk to people they do not know - Communicate information verbally and in written form using appropriate tone and language - See UCL Academic Communication Centre (ACC) for individual tutorials, workshops and courses on written and oral communication, such as essays, reports, presentations 	<ul style="list-style-type: none"> - Team roles (e.g. Belbin) - Communication styles (e.g. Merrill and Reid) - Effective presentations 	<ul style="list-style-type: none"> - Successful teamwork in future career - Writing for an audience and/or specific purpose (e.g. business report, policy paper, blog, article, conference poster) - Being able to present to an audience 	<ul style="list-style-type: none"> - Group project with formative/summative assessment - Problem/team-based learning - Self-assessment and peer assessment of individual/team performance - Role play - Authentic assessments such as writing a policy paper, blog, doing a presentation or producing a vlog (see UCL assessment load model & resources on designing effective online assessment) - Field work
Leadership & management - of self/others/resources/projects/time/organisation	<ul style="list-style-type: none"> - Identify an individual or team goal and motivate self/team to achieve goal 	<ul style="list-style-type: none"> - Leadership theories & styles (e.g. Adair action centred leadership) 	<ul style="list-style-type: none"> - Successful management of self and others in future career 	<ul style="list-style-type: none"> - Group/individual project with formative/summative assessment

	Learning Outcomes: Students should be able to...	Example Content/Topics (<i>Learning 'about'</i>)	Practical goals (<i>Learning 'for'</i>)	Process/Example techniques (<i>Learning 'through'</i>)
	<ul style="list-style-type: none"> - Manage resources (people, time, money) effectively - Share appropriate responsibilities to appropriate individuals - Identify priorities and appropriate timescales for own and others work 		<ul style="list-style-type: none"> - Sustainable resource management 	<ul style="list-style-type: none"> - Problem/team-based learning - Self-assessment and peer assessment of individual/team performance
Research, problem solving & decision making – systems thinking/analytical and critical thinking	<ul style="list-style-type: none"> - Identify and understand problems - Compare and analyse data from different sources to draw conclusions and develop appropriate solutions - See UCL ACC for support with analytical and critical skills such as critical reading and argumentation 	<ul style="list-style-type: none"> - Research methods - Ways of making decisions e.g. weighted matrix, system 1/system 2 (Kahneman), 6 thinking hats (de Bono), SWOT analysis 	<ul style="list-style-type: none"> - Promoting research led decision making in whatever field the student enters - Being able to critically analyse information sources and understand multiple perspectives 	<ul style="list-style-type: none"> - Problem/team-based learning - Conducting own research - Field work
Creativity	<ul style="list-style-type: none"> - Identify alternative ways to view problems and evaluate multiple solutions without being constrained by the thoughts or approaches of others - Utilise many diverse sources for inspiration 	<ul style="list-style-type: none"> - The design process/ideation - Group creativity techniques - Growth mind-set 	<ul style="list-style-type: none"> - Encouraging creative actions in future career - Effective idea generation and re-framing problems - Artistic expression 	<ul style="list-style-type: none"> - Student choice of assessment e.g. blog/vlog/video/poster - Problem/team-based learning - Creating portfolios - Presentations/performances

	Learning Outcomes: Students should be able to...	Example Content/Topics (<i>Learning 'about'</i>)	Practical goals (<i>Learning 'for'</i>)	Process/Example techniques (<i>Learning 'through'</i>)
	<ul style="list-style-type: none"> and ideas - See UCL Innovation & Enterprise course on Creative Thinking & Ideation 			
Enterprise See: UCL Innovation & Enterprise	<ul style="list-style-type: none"> - See UCL Innovation & Enterprise courses for exploring entrepreneurship and building a business/social enterprise for example learning outcomes 	<ul style="list-style-type: none"> - Case studies of start ups 	<ul style="list-style-type: none"> - Understanding what's involved in starting a business or social enterprise and developing commercial awareness 	<ul style="list-style-type: none"> - Case studies - Pitching & presenting - Dragons den exercises/competitions
Information literacy See: LibrarySkills@UCL	<ul style="list-style-type: none"> - See LibrarySkills@UCL for learning outcomes around searching, evaluating and communicating information and referencing - See UCL ACC for support with writing literature reviews 	<ul style="list-style-type: none"> - Referencing - Searching for information 	<ul style="list-style-type: none"> - Critically evaluating information and its reliability/validity 	<ul style="list-style-type: none"> - Conducting literature reviews - Writing research reports and dissertations - Evaluative comparisons and judgements around the quality of information sources - Annotated bibliographies - Synthesising sources
Technical IT/Digital/Excel/Data See: UCL Information Services Division - Digital Skills Development	<ul style="list-style-type: none"> - See UCL Information Services Division - Digital Skills Development - Interpret data, draw conclusions and 	<ul style="list-style-type: none"> - Formulas, functions, Pivot tables and VLookup in Excel - Data visualisation - Accessibility of documents and 	<ul style="list-style-type: none"> - Utilising digital tools and technologies required in the workplace - Being able to make data driven business 	<ul style="list-style-type: none"> - Analysing and presenting data (verbally or in writing) - Coursework involving technical skills

	Learning Outcomes: Students should be able to...	Example Content/Topics (<i>Learning 'about'</i>)	Practical goals (<i>Learning 'for'</i>)	Process/Example techniques (<i>Learning 'through'</i>)
	<ul style="list-style-type: none"> present recommendations - Store data in a secure manner 	<ul style="list-style-type: none"> presentations - Video editing - Stata/LaTeX/Matlab/S PSS/R - Digital footprint - Data protection 	<ul style="list-style-type: none"> decisions and share data in an accessible way - Being able to keep own and others data secure 	
Values/Personal Qualities				
Resilience and drive See: UCL Student Support and Wellbeing	<ul style="list-style-type: none"> - Establish strategies to manage life/work stresses effectively - Construct career contingency plan(s) 	<ul style="list-style-type: none"> - Recognising signs of stress in self and others - Impacts and management of stress - Mindfulness - Ways to build resilience - Positive psychology 	<ul style="list-style-type: none"> - Good mental health and wellbeing - Managing self and others 	<ul style="list-style-type: none"> - Group projects and exercises - Problem/team-based learning
Adaptability	<ul style="list-style-type: none"> - Demonstrate the capacity to be adaptable, able to manage setbacks, changes and transitions - Recognise and capitalise on opportunities that arise 	<ul style="list-style-type: none"> - Growth mind-set - Change management - Industry trends 	<ul style="list-style-type: none"> - Coping with changing trends, innovations, shifts and setbacks in the work place - Building resilience 	<ul style="list-style-type: none"> - Role plays/group exercises with curve ball - Group projects and exercises - Problem/team-based learning - Working autonomously
UCL Core Values: humanity, sustainability, excellence, equity, and community	<ul style="list-style-type: none"> - Give examples of ethical issues related to their subject - See Royal Academy of Engineering Ethics 	<ul style="list-style-type: none"> - Ethics approval processes for research - Company values - Corporate social responsibility 	<ul style="list-style-type: none"> - Professional and ethical conduct in the workplace - Bringing about change 	<ul style="list-style-type: none"> - Gaining ethical approval for research - Case studies - Debates/dilemmas - Action learning sets

	Learning Outcomes: Students should be able to...	Example Content/Topics (<i>Learning 'about'</i>)	Practical goals (<i>Learning 'for'</i>)	Process/Example techniques (<i>Learning 'through'</i>)
	Curriculum Map for more learning outcomes	- Equality and diversity		
Knowledge				
Commercial awareness including sustainable business	<ul style="list-style-type: none"> - Assess the culture of key organisations in their chosen sector - Examine what is new or changing in the graduate job market 	<ul style="list-style-type: none"> - PESTLE/SWOT analysis - Circular economy - Sustainable development goals - Key business concepts including profit/loss/revenue/market size/market share/competitor analysis /marketing - Sustainable finance 	<ul style="list-style-type: none"> - Understanding how businesses are run - Choosing the right organisation to ensure fit with personal values 	<ul style="list-style-type: none"> - Case studies - Conducting company research using library databases
Subject/industry specific knowledge & interdisciplinarity	<ul style="list-style-type: none"> - Apply subject discipline knowledge and concepts - Analyse intersection with other subject disciplines and incorporate reading from other disciplines 	<ul style="list-style-type: none"> - Real life problems - UCL Grand Challenges - Sustainable development goals 	<ul style="list-style-type: none"> - Problem solving - Creativity - Avoiding silos 	<ul style="list-style-type: none"> - Group projects with students from different disciplines - Solving real life problems - Projects set by industry partners
Experience and Networks				
Internships/Placements/Work Experience/Work related learning/Volunteering See: - UCL Careers	<ul style="list-style-type: none"> - Test career ideas through work experience and insights 	<ul style="list-style-type: none"> - See commercial awareness topics above - Occupational standards - Goal 	<ul style="list-style-type: none"> - Commercial awareness - Developing employability skills - Informing career choice 	<ul style="list-style-type: none"> - Year in industry/placement/internship - Consultancy project (addressing real life/industry challenges)

	Learning Outcomes: Students should be able to...	Example Content/Topics (<i>Learning 'about'</i>)	Practical goals (<i>Learning 'for'</i>)	Process/Example techniques (<i>Learning 'through'</i>)
<ul style="list-style-type: none"> - Internships - UCL Academic Manual Chapter 8 – Academic partnerships including placement documentation - UCL Volunteering - UCL Community Engaged Learning 		<ul style="list-style-type: none"> setting/performance monitoring - Equality and diversity 		<ul style="list-style-type: none"> with industry partner) - Project set by industry - UCL Sustainability Living Lab – real life sustainability challenges - UCL Volunteering Community Research Initiative (CRIS) (research for charity partners) - Community engaged learning assignments
Building professional networks & Developing a career identity See: <ul style="list-style-type: none"> - UCL Careers events 	<ul style="list-style-type: none"> - Build a network of career contacts - Describe the key influencers in their field - Connect with the skills, qualities, conduct, culture and ideology of their intended profession - Describe the role of professional bodies or other relevant communities of practice 	<ul style="list-style-type: none"> - The role of professional bodies and regulators - Communities of practice - Information interviews - Professional brand, online presence, digital footprint 	<ul style="list-style-type: none"> - Forming professional identity 	<ul style="list-style-type: none"> - Attending careers events and speaking to professionals - Guest lectures - Alumni/industry panel events - Interviewing relevant professionals - Being mentored by a professional - Attending (or presenting at) conferences or networking events
Global Citizenship				
International mobility, cultural awareness & global challenges See:	<ul style="list-style-type: none"> - Demonstrate awareness and sensitivity to different cultural contexts and 	<ul style="list-style-type: none"> - Equality and diversity - UCL Grand Challenges - Sustainable 	<ul style="list-style-type: none"> - Working in diverse teams - Addressing equality and diversity issues in 	<ul style="list-style-type: none"> - Study abroad exchange - Study abroad summer school/research

	Learning Outcomes: Students should be able to...	Example Content/Topics (<i>Learning 'about'</i>)	Practical goals (<i>Learning 'for'</i>)	Process/Example techniques (<i>Learning 'through'</i>)
<ul style="list-style-type: none"> - UCL Global Engagement Office - UCL Careers Global Internships Programme - UCL Study Abroad 	an international labour market	development goals	the workplace	<ul style="list-style-type: none"> project/internship/volunteering - Field work abroad - Multi-cultural reading lists - Guest lectures/panels giving diverse perspectives - Project addressing global challenges - Global case studies
Career planning and decision making				
Self-awareness	<ul style="list-style-type: none"> - Identify skills, attributes and experiences and evaluate gaps to be addressed - Evaluate own values and motivations - Consider strengths and areas for development - Assess progress 	<ul style="list-style-type: none"> - Johari window model 	<ul style="list-style-type: none"> - Self-confidence - Effective leadership - Career development 	<ul style="list-style-type: none"> - Reflective writing/analysis, diary or blog - Careers guidance interview/coaching - Peer coaching exercise - Employer mock interview - Assessment centre style activity with self/peer feedback - Self/peer assessment - 360 degree feedback
Career decision making	<ul style="list-style-type: none"> - Assess fit for roles and opportunities - Select possible career path(s) 	<ul style="list-style-type: none"> - Ways of making decisions e.g. weighted matrix, system 1/system 2 (Kahneman), 6 	<ul style="list-style-type: none"> - Effective decision making - Career happiness 	<ul style="list-style-type: none"> - Careers guidance interview/coaching - Analysis of previous decisions

	Learning Outcomes: Students should be able to...	Example Content/Topics (<i>Learning 'about'</i>)	Practical goals (<i>Learning 'for'</i>)	Process/Example techniques (<i>Learning 'through'</i>)
		thinking hats (de Bono), SWOT analysis - Theories of career decision making		
Opportunity awareness	- Interpret the labour market and search for opportunities	- How to source and analyse labour market information	- Effective decision making	- Attending careers events and speaking to professionals - Guest lectures - Alumni/industry panel events - Interviewing relevant professionals - Being mentored by a professional - Attending (or presenting at) conferences or networking events - Job study/labour market analysis - Analysing alumni destinations of your programme
Reflection and articulation				
Reflection	- Understand the benefits of reflection and its place in academic study, work and lifelong learning	- Reflection models e.g. Kolb experiential learning cycle/Gibbs' reflective cycle	- Achieve academic, career, and personal success as a lifelong learner.	- Reflective writing /reflective questions/forums posts/commenting on peers reflections - Self/peer assessment - Guided reflection

	Learning Outcomes: Students should be able to...	Example Content/Topics (<i>Learning 'about'</i>)	Practical goals (<i>Learning 'for'</i>)	Process/Example techniques (<i>Learning 'through'</i>)
				<ul style="list-style-type: none"> - following an activity (reflective skills are integrated into ACC provision)
Articulation	<ul style="list-style-type: none"> - Produce high quality professional applications, CVs and cover letters - Perform well at interview - Articulate the skills and added value gained through their degree, work experience and extra-curricular activities - Create an effective online presence 	<ul style="list-style-type: none"> - The STAR technique for answering competency based interviews/application questions - What employers look for and shortlisting processes 	<ul style="list-style-type: none"> - Selling yourself to an employer - CV/LinkedIn profile writing - Career development 	<ul style="list-style-type: none"> - Mock interview conducted by careers consultant or employer - Assessment centre activity with self/peer/employer/career consultant feedback - Presentation - Portfolio building

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