Newcastle University

Leading Edge Curriculum Framework

Foreword

The Leading Edge Curriculum (LEC) is key to delivering the ambitions set out in Newcastle University's Education for Life 2030+ Strategy. It provides a shared, institution-wide framework to support high-quality, future-focused education that is academically rigorous, inclusive, and clearly articulated across the student journey.

This short video provides a brief introduction to the purpose of the LEC and highlights key elements of the framework, including programme-level design, Education for Life Skills and Attributes, Encounters with the Leading Edge, and our commitment to active learning and meaningful assessment.

The LEC framework offers a common language and structure to support shared understanding and consistent approaches to curriculum across the institution, helping ensure learning experiences are coherent, intentional, and aligned to our Education Strategy.

Professor Ruth Valentine
Pro Vice Chancellor, Education

Click to watch video on ReCap and access the transcript.

Introduction

This framework is an interactive PDF best viewed in Adobe Acrobat.

This means that you can click through to specific sections you want to find out more about rather than scrolling all the way through.

Click on this icon → to navigate to different sections

Click on this icon ☰ to return to this Introduction

This Leading Edge Curriculum Framework sets out the core policy requirements for the Leading Edge Curriculum, what the curriculum contains and how it is delivered, covering:

1. Programme-level design philosophy →
2. Principles of learning and teaching →
3. Principles of assessment →
4. Capstone modules →
5. Education for Life Skills and Attributes: curriculum parameters →
6. Encounters with the Leading Edge →
7. Cross-cutting curriculum themes →
8. Global opportunities and placements →

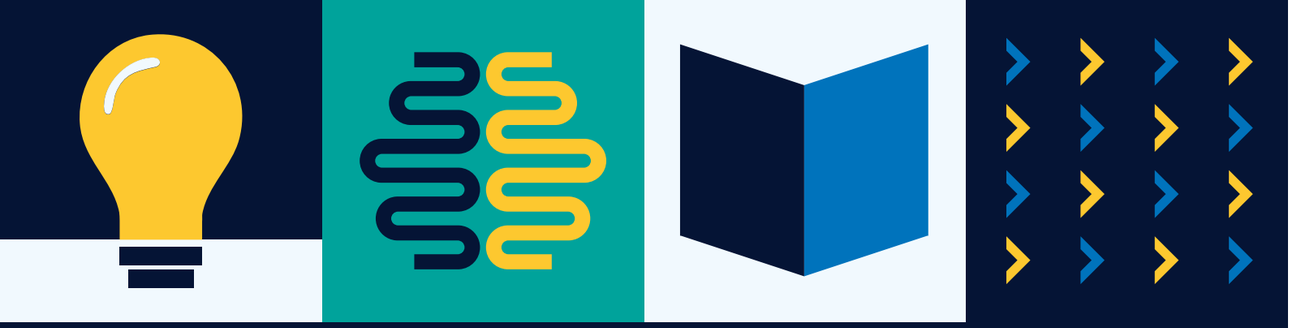
The numbered paragraphs (1.1 etc.) are policy requirements that apply to all undergraduate and taught postgraduate programmes.[1]

The Framework is supported by enabling policies, including:

- **Qualification, Credit and Programme Design Framework (QCPDF)**
  ncl.ac.uk/epgs/leading-edge-curriculum
- **Programme and module learning outcomes**
  ncl.ac.uk/epgs/leading-edge-curriculum
- **Assessment, Feedback and Marking Policy**
  ncl.ac.uk/epgs/policies-and-procedures/policies-az

Further enabling policy, guidance and resources will be developed to support the Framework over time.

[1] With flexibility where necessary for programmes delivered in partnership, on a commissioned basis or where professional, statutory or regulatory (PSRB) requirements conflict with this Framework.



1.

Programme-level design philosophy

Programmes designed as integrated, intentional and transformational learning experiences

At individual programme level, the Framework is underpinned by a programme-level design philosophy that reflects both our educational values and the practical realities of meaningful curriculum design. We recognise that students experience their education as a coherent programme, not as a disconnected series of modules or units of learning.

Designing at programme level enables us to shape this journey intentionally - sequencing learning and assessment, embedding knowledge, skills and attributes holistically, and ensuring alignment with our Education for Life 2030+ Strategy and institutional priorities.

In embracing programme-level design, we move from curriculum as a collection of individual modules or units of learning to curriculum as an integrated, intentional, and transformational learning experience.

Programme teams must:

1.1. Work together to reflect on and shape the overall learning journey, **articulate the programme's philosophy**, **clarify progression**, **and create a clearly sequenced developmental pathway** through which students build knowledge, skills and attributes over time.

Programme-level design provides the structural foundation for implementing the Framework, ensuring that key components - including the Education for Life Skills and Attributes, Encounters with the Leading Edge, and underpinning pedagogies - are embedded purposefully and progressively across the student learning and assessment journey. It supports deliberate, discipline-informed design choices that balance academic flexibility with institutional coherence and consistency.

To support this process programme teams should:

1.2. Draw on structured support provided through curriculum transformation activities (programme focused design and toolkits) led by our dedicated Curriculum Transformation Team and engage with the wider guidance and expertise from the Learning Teaching and Development Service (LTDS). These resources are designed to help teams translate the Framework into meaningful design decision.

2.

Principles of learning and teaching

Active learning as our core pedagogical principle

The Leading Edge Curriculum is grounded in a core pedagogical principle - **active learning**. This underpinning principle shapes how our students engage with knowledge, develop skills, and apply their learning in real-world contexts.

Active learning places students at the centre of the learning process, encouraging participation through collaboration, critical thinking, application and reflection. Grounded in constructivist theory, it enables students to:

- Engage deeply with knowledge and concepts
- Apply theory to real-world problems
- Build collaborative and communication skills
- Reflect on their development and progress

Active learning is not a single method but a flexible approach that can be embedded across the curriculum - from small interactions within sessions such as questioning, discussion or peer feedback, to more deliberate, structured strategies within curriculum and assessment design.

Active learning can be embedded through purposeful pedagogical approaches including **problem-based**, **experiential**, **collaborative** and **reflective learning**. These approaches help students to participate fully and meaningfully in their education.

Watch Sara Marsham, Academic Lead for the Leading Edge Curriculum explain more.
Click to watch video on ReCap and access the transcript.

All programmes must:

2.1. Embed **active learning** as the core pedagogical principle.

2.2. Incorporate **problem-based**, **experiential**, **collaborative**, **and reflective learning** in ways appropriate to their disciplinary context. There must be at least one instance per programme of **experiential learning**, and instances of each of **problem-based** and **collaborative learning**. **Reflective learning** must feature in all stages, scaffolded across the programme journey.

2.3. Apply **inclusive design** to learning and teaching approaches, ensuring equitable access for all students.

2.4. Foster **psychologically safe** learning environments that support participation and growth.

2.5. **Integrate AI tools** where appropriate, in ways that are ethical, inclusive, and supportive of learning.

2.6. Take a **team-based collaborative programme design and ownership approach** to ensure consistency, innovation, and shared ownership of quality.

All modules (or units of learning) must:

2.7. Consist of elements of **synchronous delivery**, **asynchronous directed learning** and **students' independent learning**.

2.8. Include **online materials that scaffold and support** synchronous delivery as part of the asynchronous directed learning.

All academic units must:

2.9. Embed team taught approaches to modules, and where taking a different approach provide a rationale to Faculty Education Teams. **The expectation is that compulsory modules will always be team taught**.

Programme teams will use these principles to:

- Enable encounters with the leading edge of research, industry, practice, and society.
- Develop students' Education for Life skills and attributes.
- Support inclusive, flexible and future-ready learning

3.

Principles of assessment

Meaningfully connecting to students' futures

Assessment is an essential part of the student learning experience – it shapes what and how students learn and provides vital feedback to support their development. Within the Framework, assessment is designed to be equitable, transparent, and meaningful, with practices developed at programme level to ensure coherence, inclusivity, and manageable workloads.

The following principles enable programme teams to create assessment strategies that reflect disciplinary needs and promote student success.

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All programmes must:

3.1. Have an assessment strategy that is **planned**, **designed**, **and implemented at programme level**. The module level assessment design will evidence achievement against the module level learning outcomes that are directly linked to programme level learning outcomes. The assessment strategy and module level assessment design must be clearly communicated with both students and colleagues.

3.2. Ensure the **integrity of the award** through the combined assessment journey.

3.3. Incorporate assessment tasks that **meaningfully connect to students' futures** beyond the classroom. These should progress in complexity throughout the programme, enabling students to develop and apply skills and attributes they recognise as relevant for their futures.

Connecting with the requirements for Encounters with the Leading Edge (see Section 6), at each stage at least two substantive pieces of assessment (contributing at least 50% of a module) must meaningfully connect to the students' futures beyond the classroom.

3.4. Use a **diverse range of assessment types** across a programme, including those that challenge and help students develop and evidence relevant skills and attributes.

3.5. Embed **inclusive assessment practice** in assessment design and delivery to ensure that students are not excluded or disadvantaged in the way that they are assessed. All modules where the assessment type presents known barriers to inclusion must have **alternative assessment** defined at design stage.

3.6. Include a **capstone module**, the assessment design for which will require students to integrate and apply knowledge, skills and attributes acquired throughout their programme (see Section 4).

The following policy requirements set out how our assessment will be delivered by us and experienced by students:

3.7. Every stage of every programme must **scaffold** students' learning through planned formative elements. This can include formative assessment, practice or low-stake summative assessments as appropriate to the stage of study, discipline and programme design.

3.8. Where **collaborative assessments** are used summatively and contribute towards an award they must include an individual component to support student engagement and recognise contributions.

3.9. Assessment **workloads** for students and colleagues must be manageable, and assessments must be sequenced to allow colleagues time to provide marks and feedback, and students to act upon previous feedback. Assessment workload should be mapped on a week-by-week basis across each semester to avoid deadline bunching for compulsory modules, minimise bunching for optional modules and ensure that students have adequate time to complete assessments alongside timetabled and study preparation tasks.

3.10. As a minimum, every programme must deliver synchronous activities that develop students' **assessment and feedback literacy**. These activities must be delivered in the first semester of the programme within a compulsory module.

Programmes should build on this in later stages, particularly where new forms of assessment are encountered. This will help students recognise and interpret feedback, provide feedback to others, and become self-regulated learners capable of evaluating their own performance.

3.11. Each **assessment** must have **clear**, **explicit and transparent information** on learning outcomes, format and assessment criteria to enable full understanding of what is required and expected of students, and why it is important (or how it contributes) to overall programme learning outcomes. This also helps to reduce student anxiety around assessment.
Assessment instructions and materials must adhere to University assessment briefs and use **clear**, **simple and inclusive language / terminology** that considers the full diversity of the student population (e.g. neurodiversity, specific learning difficulties, international students etc.) to ensure all students can easily understand the assessment requirements without misunderstanding or ambiguity.
Each assessment must have clear guidance on the expected student workload.

3.12. **Clear feedback expectations** must be set out at the start of every module in a synchronous session and on the VLE, ensuring students understand what feedback to anticipate across the module, and for each assessment and from which sources (educator, self, or peer), to enable them to act upon it.

3.13. **Criteria-based assessment rubrics** must be developed at programme level and utilised and adapted for specific assessments to support marking efficiencies and consistency and demonstrate connections to module learning outcomes.

3.14. All **feedback must be directly linked to learning outcomes** and incorporate actionable elements that students can apply to current and subsequent tasks. Feedback must be delivered within the established 20-day turnaround time, with **advice for areas of development clearly identifiable**. Feedback format (written, verbal, or recorded) must be appropriate for the specific task and framed in specific, constructive, honest, and supportive language.

4.

Capstone modules

An in-depth learning experience in every programme

A **Capstone module** is part of the final stage of an undergraduate degree or a postgraduate taught programme. In Capstone modules students will demonstrate a deep understanding of their subject, critically evaluate arguments, make judgements and solve complex problems. Capstone modules offer self-direction permitting students to engage with areas of interest.

All programmes must incorporate:

4.1. A **Capstone module** in which students showcase knowledge and skills in their discipline(s).

All Capstone modules must:

4.2. Be a progression of **Encounters with the Leading Edge**, developed across the programme and be authentic to research, industry, practice and society, relevant to discipline, demonstrating relevant skills and attributes.

4.3. Include a **reflective element** in which students articulate the development of their thinking and/or reflect on the skills and attributes they have applied in the Capstone.

4.4. Meet the relevant **FHEQ requirements** (FHEQ 6 for UG, FHEQ 7 for PGT) and relevant **PSRBs**.

4.5. Lead to **an individual submission**. Group work may be included in Capstone modules either as an assessed componet (e.g. group project work no more than 50% of the final mark), or as formative collaborative element leading to an individual output.

Programme teams will determine the format of delivery of Capstone modules (e.g. predominantly supervised or taught). The nature of the work produced by students will vary across disciplines and depend on the nature of the Capstone module. Capstone outputs could either build towards a single project or be a portfolio of work demonstrating a wider range of skills.

The choice of outputs can also be defined by programme teams and where appropriate, co-created with students. Options include, but are not limited to: dissertation, oral presentation, poster, portfolio, case studies, report, business plans, policy document, creative media (podcast) and may also incorporate a collaborative element (see 4.5).

The format of the Capstone might be chosen to be consistent across a suite of aligned programmes to facilitate inter-disciplinary activities.

Programmes may offer more than one version of a Capstone module or variations in approaches within a single module as appropriate. Capstone options are in addition to the optional modules permitted at each stage in the QCPDF.

All students should:

4.6. Be given **choice** regarding both the topic and format of their Capstone project, except in case where requirements are stipulated by PSRBs.

Programme teams can opt to:

- Have a Capstone module of 40 (UG) or 60 (PGT) credits in one semester; or
- Deliver the Capstone module (40 credits UG or 60 credits PGT) across the semesters in the Stage (i.e. across 2 semesters in UG or up to 3 semesters in PGT), respecting the 20-credit split (e.g. UG 20/20; PGT 40/20, 20/40, 20/20/20).

The division between semesters should follow a single model within a programme, (i.e. only one of the two options above) to ensure that all students will have the same choice of standard optional modules offered at the Stage irrespective of their chosen Capstone module.

Where a research proposal is required to be completed prior to the final stage, which contributes to the summative assessment for the Capstone module, the learning hours and assessment can be considered as a constituent part of the Capstone.

Integrated Masters programmes may consider offering a 40 credit Capstone at Stage 3 and a 60 credit Capstone at Stage 4 to provide exit routes at Stage 3. In this case the Stage 3 Capstone may follow a predominantly taught route within the parameters given above.

5.

Education for Life Skills and Attributes: curriculum parameters

Our universal set of skills and attributes built into every programme design

Our Education for Life Skills and Attributes are designed to develop the whole person to enable them to navigate and shape a changing world through integrated academic, professional, and personal growth. They are **anchored in our aspirational values of excellence, creativity, and impact**. This shared approach within and beyond the curriculum aims to prepare students for their futures by embedding essential knowledge, skills, and attributes into both their academic studies and wider student experience.

It aims to ensure all students engage meaningfully with opportunities for academic, personal, and professional development throughout their time at Newcastle.

These curriculum parameters support programme teams to embed the skills and attributes into degree programmes through programme-level curriculum design, development, and delivery. It aims to ensure all students have equitable, visible, and meaningful opportunities to develop the skills and attributes most relevant to their discipline and future.

Students should be supported to **identify**, **explore**, **apply**, and **reflect** on these skills and attributes as part of their learning journey. This approach balances flexibility for disciplines with coherence across the university, guided by the Newcastle growth mindset clusters: Excellence, Creativity, and Impact.

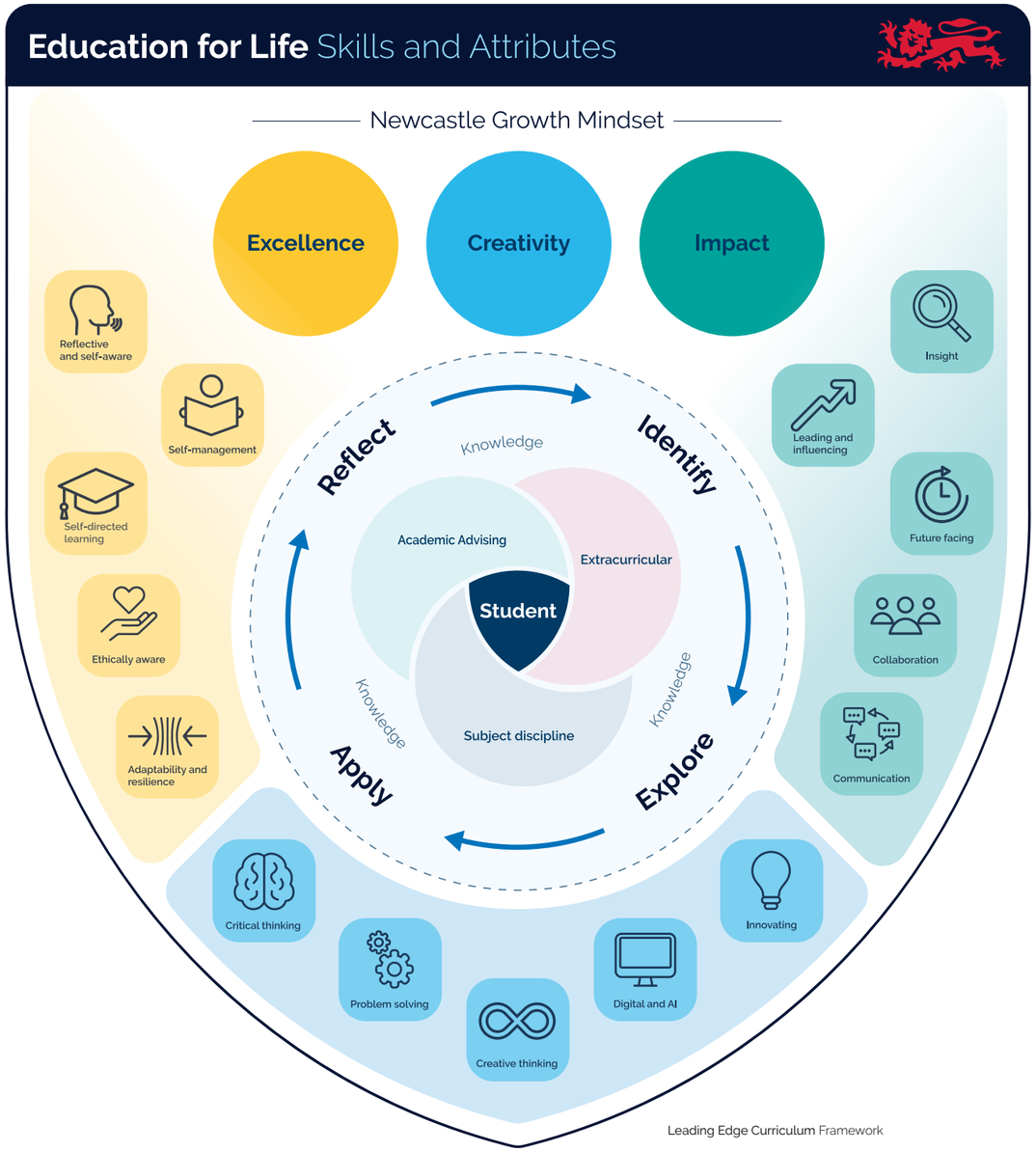
All programmes must include:

5.1. **Undergraduate** – at least six skills and attributes per stage, with at least two skills and attributes from each growth mindset cluster per stage; skills can repeat across stages.

5.2. **Postgraduate taught** – at least six skills and attributes per programme, with at least two from each growth mindset cluster.

5.3. At each stage of an undergraduate degree / whole PGT programme, at least one structured opportunity for students to reflect on their development of skills and attributes. This should happen within compulsory modules. Students should be supported to evaluate their progress, evidence their 'distance travelled' development, and have meaningful conversations about their learning.

Programme teams will be supported to embed the Education for Life Skills and Attributes through the curriculum design processes.



All programme teams must ensure that:

5.4. All skills and attributes are considered within the programme design process. Some programmes may naturally embed more skills and attributes, depending on disciplinary context and learning opportunities. There is no requirement for all 15 skills and attributes to be embedded in every programme (see 5.1 and 5.2).

5.5. Skills and attributes are selected and embedded in alignment with relevant FHEQ levels, subject benchmark statements, and any applicable professional accreditation requirements. The growth mindset clusters offer a structure to guide balanced integration across the programme.

5.6. Selected skills and attributes must be mapped to Programme Learning Outcomes (PLOs), with clear connections to assessment where appropriate. Skills and attributes that are assessed must be explicitly embedded and surfaced within modules.

Active learning approaches are encouraged to support skill and attribute development, but assessment should only include skills and attributes students have had the opportunity to explore and apply.

5.7. All students must have equitable access to embedded skills and attributes, including those on joint or combined honours pathways, part-time students, and those undertaking study abroad. Programme teams must ensure inclusive and coherent design across all student routes.

All programme teams must ensure that in programme delivery:

5.8. Embedded skills and attributes are clearly surfaced in student-facing documentation, including programme and module descriptors, using inclusive and accessible language appropriate for a diverse student population (e.g. neurodiverse, international, or multilingual students).

5.9. Where certain skills and attributes are not embedded within the curriculum, students must be signposted to other University-wide opportunities where they can engage with these skills / attributes.

[Note: work to utilise skills and attributes within extra-curricular activities is being undertaken by Education Strategy project Newcastle Beyond the Curriculum]

5.10. Assessment criteria should reference skills and attributes where these are explicitly developed within the curriculum. Feedback and feedforward should help students understand their progress and identify opportunities for growth.

6.

Encounters with the Leading Edge

A chance to connect with and learn through encounters with research, industry, practice and society

At the heart of our curriculum, learning is enriched through engagement with the leading edge of **research**, **industry**, **practice**, and **society**. These encounters connect academic learning challenging our students to:

- Apply knowledge in real-world contexts
- Engage with expert insight
- Develop the mindset and skills to shape their future and society

While interconnected, each encounter offers a distinct perspective on learning and professional engagement.

Our cross-cutting themes of **Global**, **Digital**, **Social Justice**, and **Sustainability** provide critical lenses to enhance and contextualise learning through encounters.

All programmes must:

6.1. Embed encounters with the Leading Edge across the full programme.

6.2. At each stage of an undergraduate programme and across any PGT programme, programmes must include at least two encounters:

- one focused on research
- one drawn from either industry, practice, and / or society

6.3. Ensure these encounters are meaningful and relevant. Programme teams will be supported to tailor them to their disciplinary context, stage of study, and student needs (see also 2.3).

Encounters with research

Engagement with current research, inquiry processes, and research communities, supporting the development and application of research skills – including independent investigation and knowledge creation.

Encounters with industry

Engagement with current industry challenges, technologies, and professional practices, shaped through collaboration with organisations and leading professionals.

Encounters with practice

Learning enriched by authentic professional or creative practices, standards, and environments aligned with disciplinary or vocational pathways.

Encounters with society

Learning informed by awareness of and engagement with societal needs, values, and the public good - often through real-world projects that create meaningful impact.

7.

Cross-cutting curriculum themes

Global, Digital, Social Justice and Sustainability: lenses through which our programmes can be designed and enriched

Four cross-cutting themes - **Global**, **Digital**, **Social Justice** and **Sustainability** - have been identified as lenses through which programmes can be designed and enriched. These themes are not prescriptive requirements but invitations to engage with ideas that connect learning to the world students live in and the futures they will shape. They are intended as perspectives that inform and enhance curriculum rather than standalone or credit-bearing modules.

Programme teams will be supported to embed the cross-cutting themes through the curriculum design process.

All programmes must ensure that:

7.1. All themes are considered within the programme design process. Some programmes may naturally align with only one or two themes. All programmes must identify how they align with the **Global** theme.

7.2. They are able to communicate as part of programme approval, and to students, how their programme and modules address one or more cross-cutting themes.

8.

Global opportunities and placements

A chance for every student to step into the workplace or explore the world

Whether in the North East, the UK or internationally, first person experience of work or study in a different setting is a crucial way that we offer students an encounter with the leading edge and a chance to develop their skills and attributes beyond their taught programme curriculum.

All undergraduate programmes must:

8.1. Be designed to incorporate an optional 9–12 month placement and include the opportunity to undertake an international study year.

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