Developing your Trinity Elective Descriptor: Pedagogic Considerations

Rationale

Trinity Electives are one of the seven features of the Trinity Undergraduate Education, which provides a programme-focused and research-centred curriculum that employs a range of teaching, learning and assessment strategies supported by technology-enhanced approaches. The curriculum consists of structured and flexible pathways that support the achievement of programme learning outcomes and the development of four Graduate Attributes - 'To Act Responsibility', 'To Develop Continuously', 'To Think Independently', and 'To Communicate Effectively'. Trinity Electives seek to link research and teaching in an innovative way. Their purpose is to add breadth to the undergraduate curriculum by providing students with meaningful and distinctive learning experiences beyond their main discipline(s)/subject(s) and with opportunities to develop the Trinity Graduate Attributes. They are stand-alone modules, with no prerequisites, which may be taken by undergraduate students from across the University in their Senior Fresh and Junior Sophister years. They are weighted at 5 ECTS and are taught and assessed within one semester. Trinity Electives may be linked specifically to the Trinity research themes or address key societal challenges from a contemporary and/or historical perspective. **All should seek to connect student learning with our research activity and enable students to engage with the societal impact of research.**

Offering a Trinity Elective gives Schools, Trinity Research Institutes and Trinity-led National Research Centres the opportunity to introduce their discipline/s to a much wider range of students and to highlight key research directions. In this way, Trinity Electives visibly link research and teaching by exposing students to cutting-edge research across the university. This, in turn, can encourage interaction between academics in different disciplines that may generate other benefits including development of new teaching or research activity.

Learning Outcomes: Pedagogy and Principles

A learning outcome is a student-centred statement clarifying the knowledge, skills and behaviours that the student should be able to demonstrate upon completion of a particular Trinity Elective. Learning outcomes influence module content, delivery mode, and assessment strategy. In curriculum design terms, **constructive alignment** is desirable (e.g. coherence between assessment activity, teaching and learning activities, and learning outcomes). Clearly articulating learning outcomes for a Trinity Elective is an essential step in curriculum design with important implications for teaching, learning, and assessment.

Learning outcomes:

- Specify the knowledge, skills, and/or behaviours a learner is expected to acquire or develop on completion of the module.
- Are written in the future tense, e.g. 'by the end of this Trinity Elective, you will be able to… [+verb]'.
- Are explicitly and clearly expressed with an assessable verb.
- Should be limited in number (typically 4 - 5).
- Should be at an appropriate intellectual level for a Senior Fresh/Junior Sophister student.

It can be useful to look at taxonomies when constructing learning outcomes. Perhaps the most influential taxonomy is Bloom's *Taxonomy of Educational Objectives* which categorises learning into three domains: cognitive, affective and psychomotor:

• The **cognitive domain** includes recall, recognition of knowledge and the development of intellectual skills/abilities.
• The **affective domain** incorporates emotion, feeling and character.
•The **psychomotor domain** concerns physical movement and coordination

Learning outcomes in higher education are most commonly related to the cognitive domain. Learning outcomes designed for Trinity Electives (e.g. connecting to or developing softer skills such as reflexivity, creativity, leadership, negotiation, confidence) are likely to draw on more than one domain.

Questions to consider:

- Are Trinity Elective learning outcomes 'outcomes' and not just a list of syllabus aims or objectives?
- Does the assessment strategy enable students to demonstrate their achievement of learning outcomes?
- Is the balance of learning outcomes across domains appropriate for the Trinity Elective?
- Are all of these learning outcomes necessary? Less is more: limit the number of learning outcomes to no more than 5 per Trinity Elective.
- Are the learning outcomes for the Trinity Elective drafted using appropriate verbs? Are they clearly and concisely articulated?

Supplementary Academic Practice materials on learning outcomes may be useful for you as well.

All Trinity Electives should be built around core common objectives:

1. Examine current and/or past critical issues using techniques and approaches from multiple disciplines.
2. Expose students to new domains of knowledge, methods of enquiry and epistemologies, and the wider implications/consequences of the challenge/topic.
3. Foster reflection, inquisitiveness, skills of analysis and critical thinking.
4. Engage students in learning opportunities in diverse/heterogeneous groups.
5. Provide students with opportunities to develop the **Trinity Graduate Attributes** [to think independently, to communicate effectively, to develop continuously, to act responsibly].

Learning outcomes for Trinity electives should thus feature:

1. A LO which addresses the big picture (the 'what' and 'why').
2. A LO which helps students understand the 'how'.
3. A LO which includes an international dimension or comparative perspective.
4. A LO which addresses collaborative learning/ innovative assessment techniques.
5. A LO linked to the Graduate Attributes.

Assessment: Pedagogy and Principles

Assessment for a Trinity Elective should include innovative methods and ensure students take an active and self-regulated approach to their own learning. Among the key themes to consider as you identify an assessment strategy appropriate to your Trinity Elective are:

- Alignment of the assessment to learning outcomes.
- Nature of assessment (e.g. traditional/ outward-facing; abstract/applied; qualitative/quantitative).
- Modality of assessment across the module (e.g. formative/summative).
- Weighting of the assessment components.
- Size of assessment (measured in terms of workload and ECTS hours).

As Trinity Electives should incorporate blended delivery, consider where digital assessment practices are appropriate. The resources in the Gateway to Digital Assessment Resource Hub are intended to support colleagues to develop insight into broad principles of digital assessment.

The two examples below highlight how the same outcome might be assessed in different ways:

Sample Learning Outcome:

(1) Evaluate and justify the benefits of exercise to health and in the prevention of disease.

Sample Assessment Briefs:

Example 1: Discuss/evaluate the benefits of exercise to health and in the prevention of disease. (3000 words).	**Traditional assignment**: abstract, discursive, theoretical
Example 2: Develop a one-page infographic in poster format to advertise the recommended physical activity guidelines and outline the evidence base of the benefits of physical activity to health and wellbeing.	**Outward-facing ('authentic') assessment**: Research-informed, applied, potentially relevant to professional context

It's also appropriate to consider where and how do formative assessment practices and feedback feature in the assessment plan (e.g. assessment for and as learning). Is it appropriate or desirable for feedback to be provided to students enrolled in your module only at the end of the module? Howdo teaching and learning activities across the module build/lead towards assessment?

Might an assessment be 'stepped'? If using example 2 above ('infographic'), participants would have to: 1. Identify their audience and present aims/objectives to peers; 2. Develop a research bibliography informing their project plan; 3. Develop a draft project plan; 4. Develop their infographic pitch; 5. Submit a final version. Might peer-review of early draft(s) of steps 1 – 4 be used to provide feedback to participants

without increasing workload for the teaching team?

Bear in mind that the grand sum of assessment 'time' (e.g. including all time spent preparing for/doing assessment of all kinds across the module) should be appropriate to the 5 ECTS value of the TE module. How is the final award of the module to be calculated, e.g. what are the assessment features that characterise a pass/fail or distinct grade areas? What does high-stakes summative assessment (e.g. assessment 'of' learning) look like in the Trinity Elective? What does reassessment look like?

When developing your module assessment strategy, you may find it beneficial to review thefollowing prompts:

- How does assessment enable learners to demonstrate their achievement of learning outcomes?
- Is accessible for the Trinity Elective accessible to students from a range of disciplines?
- How and where does feedback feature in the Trinity Elective assessment strategy?
- How much assessment is too much or too little, e.g. the integrity of the award vs the workload for student/ assessor?
- Are traditional assessments (e.g. essays/exams) appropriate for the learner profile enrolled on the programme or might applied assessments be more appropriate?
- Is there any choice in assessment activity (e.g. pre-recorded or live presentation, essay or presentation, portfolio, visual or digital artefact)?
- When and where does assessment take place across the structured programme of your module, e.g. are weekly assignments a feature of your curriculum design? Do these contribute to or build towards a final summative assessment?

Teaching & Learning Methods: Design & Principles

Trinity Electives should be suitable for students from multidisciplinary backgrounds and either linked to Trinity research themes or address key societal challenges from a contemporary and/or historical perspective. The content of a Trinity Elective should adhere to common Trinity Elective objectives as outlined above.

The design of a Trinity Elective should take account of the following:

1. Students from a range of disciplines should be able to engage meaningfully with the content at the appropriate intellectual level.
2. Trinity Electives should be thematically coherent, e.g. not a series of 'show and tell' lectures or a sequence of multidisciplinary topics.

The table below outlines a range of teaching and learning approaches commonly aligned to particular learning outcomes using Bloom's revised Taxonomy as a framework. Keep in mind that baseline expectations of knowledge acquisition and retention often underpin learning outcomes framing complex knowledge, skills, and behaviours.

Questions to consider:

- Which teaching strategies will guide and facilitate learners towards the achievement of learning outcomes?
- How will these strategies be implemented in the blended delivery context of a Trinity Elective? (N.b. Electives should incorporate **blended delivery** on a spectrum from 80%+ - to 20% on-site (see' Guide to Blended Delivery' below).
- How will teaching and learning interactions be facilitated in the context of online or blended delivery (e.g. through asynchronous discussion boards, synchronous online teaching events using break-out groups etc)?

Teaching strategies may be used as part of problem-based learning, inquiry-based learning, case-based learning and other teaching and learning approaches. Strategies outlined below are neither exhaustive nor prescriptive.

Learning outcome linked to:	Related verbs:	Teaching strategies typically used to support the achievement of this learningoutcome type
Knowledge acquisition and retention	Recognise, Recall, State, Outline, Identify, Describe, Match, Order, Name, Label, Reproduce.	• Lecture / Didactic teaching • Didactic tutorial / Seminar • Self-directed learning • Classroom assessment techniques (e.g. minute papers, polling, 3-2-1 structured engagement, Think-Pair-Share)
Understanding and comprehension	Interpret, Exemplify, Clarify, Classify, Paraphrase, Summarise, Infer, Compare, Explain, Represent, Translate, Illustrate, Categorise.	• Lecture / Interactive teaching • Interactive tutorial / Seminar • Scaffolded discussion • Role play • Simulation • Group work • Self and peer assessment • Peer teaching • Self-directed learning • Independent research • Conducting fieldwork • Experimental lab work (Individual/in pairs or groups) • Artefact creation (e.g. essay/multimedia artefact • Classroom assessment techniques (e.g. minute papers, polling, 3-2-1 structured engagement, Think-Pair-Share)
Application of knowledge in a given situation.	Apply, Implement, Demonstrate, Illustrate, Interpret, Execute.	• Role play • Simulation • Group work • Peer teaching • Research enquiry • Conducting fieldwork • Experimental lab work (Individual/in pairs or groups)
Analysis, classification, structural understanding,	Analyse, Differentiate, Organise, Attribute, Appraise, Critique, Compare.	• Lecture / Interactive teaching • Interactive tutorial / Seminar • Scaffolded discussion

hypothesis testing, andevidencing.		• Role play • Simulation • Group work • Self and peer assessment • Peer teaching • Self-directed learning • Independent research • Conducting fieldwork • Experimental lab work (Individual/in pairs or groups) • Artefact creation (e.g. essay/multimedia artefact)
Evaluating, evidencing and defending judgment or analysis.	Evaluate, Critique, Appraise, Argue, Justify, Explain, Predict, Support, Defend.	• Interactive tutorial / Seminar • Panel discussion • Role play • Simulation • Group work • Self and peer assessment • Peer teaching • Scoping or comparative analysis • Conducting fieldwork • Experimental lab work (Individual/in pairs or groups) • Artefact creation (e.g. essay/multimedia artefact
Creating, integrating, or synthesising ideas, concepts or practices coherently.	Create, Generate, Plan, Produce, Design, Modify, Develop, Invent, Write.	• Role play • Simulation • Group work • Peer teaching • Conducting fieldwork • Experimental lab work (Individual/in pairs or groups) • Artefact creation (e.g. essay/multimedia artefact

Guide to Blended Delivery		
Proportion of Content Delivered Online	**Type of Course**	**Typical Description**
1-29%	Web Facilitated	Course which uses web-based technology to facilitate what is essentially a face-to-face course. Uses a course management system (CMS) or web pages to make the Trinity elective syllabus and assignments visible to learners
30 to 79%	Blended/Hybrid	Course that blends online and face-to-face delivery. Substantial proportion of the content is delivered online, typically uses online discussions, and typically features some physical face-to-face meetings
80+%	Online	A course where most or all of the content is delivered online. Typically have no physically face-to-face meetings.

Keeping your learning outcomes in mind will help you plan effectively and support you to take a holistic approach to Trinity Elective design. Select teaching and learning methodologies which align with your intended learning outcomes. It may seem counter-intuitive but try not to focus on content first. Backwards design philosophies can support you to select teaching and learning methodologies which align with your intended learning outcomes. This means:

1. Articulating learning outcomes.
2. Deciding how to assess the demonstrated achievement of those learning outcomes.
3. Planning your teaching and learning strategies.
4. Mapping the content to be covered

Contact **Academic Practice** (academicpractice@tcd.ie) if you have any questions regarding the design of your Trinity Elective