

# National College of Ireland

## Quality Assurance Handbook



### 13 Programmes Using Technology Mediated Learning

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### 13.1 POLICY, PROCEDURES AND GUIDELINES FOR PROGRAMMES USING TECHNOLOGY MEDIATED LEARNING

This policy is designed in order to ensure quality of design, delivery and infrastructure supporting online delivery of programmes and modules at the National College of Ireland. Its purpose is to support lecturers, support staff and management in ensuring that blended and online delivery is crafted and monitored in such a way that it provides the maximum benefit to the learner.

The term '**Technology Mediated Learning**' is used to cover both blended and online learning.

NCI's strategy for technology mediated learning is reviewed in conjunction with the College's Learning, Teaching & Assessment Strategy

NCI's current E-Learning Strategy defines, "**Blended Learning**" as: *the integrated combination of a number of pedagogic approaches – usually traditional learning with e-learning approaches*. In this definition the important words are integrated combination – this means that blended learning is not a collection or mixture of pedagogic approaches – it is the planned and appropriate use of different media, learning environments and teaching scenarios to deliver more engaging and effective learning experiences

All or components of a programme may be delivered in Blended Learning mode and where **this is the case NCI's Blended Learning Standards will be applied**.

The rationale for incorporating blended learning into the teaching, learning and assessment practices of College includes:

- **Flexible and adaptive learning to suit students' needs**
- Expanded collaboration and goal-oriented activities
- Promoting self-directed and autonomous learners
- Catering for individual learners through engagement and multiple modes of learning (e.g. visualization, animation, simulation, narrative and interactivity).
- Supporting effective teaching strategies such as problem based learning, meaningful contexts and case studies, learner collaboration, open and continuous assessments, simulations, learning by doing and many others.

**Programmes and that are delivered in Blended Learning Mode utilise the College's Virtual Learning Environment (VLE<sup>1</sup>) and virtual classroom technology<sup>2</sup> platform to present, organise and manage student learning activities.**

Instructional settings to be used in the delivery of a blended learning programme:

- Traditional Class

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<sup>1</sup> This is currently the Moodle platform

<sup>2</sup> This is currently the Adobe Acrobat virtual classroom environment

- On-line Class - fixed time schedule with opportunities for student interaction (uses virtual classroom technology)
- Flexible Activities
  - Digital Actions - online activities that are time flexible
  - Independent Learning - **students' self**-directed learning using on-line, print and other sources
  - Collaboration - student collaborating with others.

### 13.2 NCI'S STANDARDS FOR BLENDED LEARNING

- Students on blended learning programmes are students of NCI and entitled to similar access to library, college supports, school and administrative structures.
- Students are advised in advance of commencement of the course of the technical requirements and pre-requisite skills for effective participation on the course.
- Students are provided with support during course induction on how to use the learning technologies associated with the course.
- NCI provides technical support for College systems (e.g. VLE, virtual class room, Student Portal etc.).
- It is the responsibility of students to ensure they have the required local access and technical facilities when they are participating off-campus.
- Programme and module learning outcomes and associated assessments are the same for all modes of delivery except where specifically specified and approved.
- Lecturers are encouraged to apply good pedagogic design to their production and planning of student learning activities - this is achieved by mapping such activities against specific learning outcomes.
- Support and ongoing professional development is provided to college staff in the design, production and use of new technologies in teaching and learning.
- Where possible, the amount of student contact hours should be the same - in a **Blended Learning context "contact hours" are designated as:**
  - Learning events (e.g. Class, On-line class) where students have opportunities to ask questions contiguously (immediately following on).
  - Guided learning activities (e.g. interactive exercises that are pedagogically designed to enable the student to achieve a specific learning outcome)
- Students should be provided with opportunities to review archived instructional sequences for revision and assignment purposes.
- Student assignments are to be submitted electronically through the LMS and Turnitin software unless otherwise specified.

### 13.3 ROLES AND RESPONSIBILITIES

For each programme or module that is delivered in an Online Delivery mode, accountable key roles have be identified.

- Programme Director: Responsible for the academic management of the programme in accordance with policy in the quality assurance handbook
- Programme co-ordinator: Responsible for administrative support of the programme in accordance with the quality assurance handbook
- Module developer: Responsible for the module content and working with the instructional designer ensures that the module is designed to be delivered using technology. The module developer may be, but will not always be the lecturer.
- Instructional Designer: In association with the module developer, assists in the development of appropriate content
- Learning Experience Monitor: Responsible for guiding and monitoring the development and implementation of the Online Delivery
- Lecturer: Responsible for the delivery and assessment of the module as outlined in the approved programme document.

#### 13.4 VALIDATION OF BLENDED LEARNING AND ONLINE PROGRAMMES

Online and Blended learning programmes are subject to the programme development, validation, evaluation and review processes policies and procedures of the College. Where appropriate, the initial validation of a programme should consider whether part or all of the programme can be delivered online.

Where a programme has already been validated by QQI or recognised by a professional body, the addition of this mode of delivery will require a differential validation as outlined in the quality assurance procedures for programme validation.

Programmes may not be delivered using this mode of delivery until approval to do so is received from the awarding body.

Proposals to develop programmes using online learning or those being considered at initial validation are subject to business case approval for viability and sustainability as outlined in the quality assurance procedures for programme development and validation.

Any additional costs associated with development, review and evaluation must be considered. These include but are not limited to

1. Instructional design support
2. Assessment facilitation
3. Content updating
4. Recording facilities

These must be thoroughly explored before proposing any programme using online learning.

#### 13.5 LEARNING & TEACHING STRATEGIES FOR ONLINE DELIVERY

Lecturers may need to adapt their lecturing style to promote engagement in the online classroom. The experience should be as close to the face to face classroom as possible. This includes teaching strategies that include formative assessment and feedback. In order to ensure an appropriate mapping of face to face delivery techniques to an online medium,

the module developer must fill out and discuss a module planning form with the instructional designer. This will ensure that the mapping of both the lecturing style and the assessment strategy will be appropriate to both the online format and to the learning outcomes

## 13.6 ASSESSMENT IN BLENDED LEARNING & ONLINE PROGRAMMES

Online and Blended learning programmes are subject to all assessment policy and procedures of the College. The assessment strategy, content and delivery for an online cohort will, where possible, be close or identical to the face to face delivery.

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### 13.6.1 Proctoring of Online Assessment

In order to provide a fully online programme, it is necessary to provide students with the option of taking their assessment in an online environment. This environment must in turn be a straightforward, secure and student catered offering which ensures not only the integrity of the exam process, but does not advantage or disadvantage the student in any way. These procedures are **informed by the College's policy and procedures on invigilation** and ensuring ***the security and integrity of the assessment process***.

The following requirements have been identified as being necessary for the proctoring of online assessment.

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### 13.6.2 Invigilation/Proctoring

Traditional face to face terminal assessments are proctored (invigilated). Online versions of these same examinations shall also be proctored, be this by a live proctoring system, or recordings which are subsequently reviewed.

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### 13.6.3 Recording

To ensure **the integrity of the students' exam environments, the following details must be captured**.

1. Screen recording
2. Audio recording
3. Webcam recording

Each of these recordings must be complete, with no breaks in coverage for the duration of the exam.

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### 13.6.4 Internet reliance

Students who engage in an online offering of a course generally do so from home. This means that it is unrealistic to expect solid broadband connections at all times. Therefore any technical solution must not be reliant on a consistent internet connection. This is not to say that the solution may not use the internet at all, rather that the reliance on a solid, uninterrupted connection is not viable. To this end, technical solutions which rely on streaming in any way are not appropriate.

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### 13.6.5 Data Capture

Reliance on data capture by an external organisation should be minimised where possible. Any external solution provider must be compliant with data protection laws, and the data

held within the EEA.

As with internal terminal examinations, student scripts must be kept for a year and a day.

**Where possible examinations should be delivered through NCI's own Learning Management System and scripts should be captured through same.**

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### 13.6.6 Technical specifications

Any technical solutions must be able to run on all machines matching the minimum necessary technical specifications provided to students by the college on BYOD/Online courses.

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### 13.6.7 Criteria for the Selection of Software & Provider

Any provider or software selected for the provision of remote proctoring services must fulfil the following criteria

1. The software must allow for complete lockdown of the learners device to services other than those permitted by the faculty member and/or programme team
2. The software must allow for the unambiguous identification of the student
3. The software must require a 360 degree overview of the testing environment
4. The process must make a copy of all recordings available at the end of the assessment
5. Reports from the process must be available within 3 days of the assessment
6. Proctors employed by the provider must be trained and evidence of that training provided
7. The provider used must have the capability to store recordings for at least 4 months
8. **The provider must hold its data in a secure location within Europe or within a 'safe-harbour' environment**

## 13.7 PROTOCOL FOR THE USE OF REMOTE PROCTORING

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### 13.7.1 Purpose

To outline the process by which the invigilation of assessment undertaken under **'examination' conditions is managed in the following circumstances**

- 1 The module is delivered online
- 2 The learner is unable to attend an assessment for a validated reason and has been given permission by the Registrar to undertake the assessment in this manner

**This applies to 'in class tests' and 'terminal examinations' and any time constrained assessment**

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### 13.7.2 Obligations of the School and Programme Team

The Programme Director/Vice Dean must ensure that learners are afforded an opportunity to

1. Test that their environment will facilitate access to the remote proctoring service
2. Take a dry run assessment to understand how the process works at least 3 weeks before the assessment is scheduled. This assessment must be similar to the one that learners are expected to take.

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### 13.7.3 Conditions which a learner must agree with in order to take a remotely proctored assessment

1. The learner's technical environment must meet the required specification as laid out in the programme information
2. Learners must permit the installation of the software used for this process on their device
3. Learners are required to establish identity following the procedures outlined by the software provider instructions.

Learners are responsible for self-testing the functionality of the system well in advance of all Remote Proctored exams in their courses, so that any troubleshooting that is required can be accomplished

Learners must agree to the storing of their name, email address and a recording of the assessment on **the software providers' server**. This will be deleted at the end of the assessment period and after all appeals are completed.

The test environment must replicate the traditional environment and conform to the following:

- A quiet, secure, fully lighted room for the examination
- No other people in the room
- Sit at a clean desk or clean table (not in a bed or sofa)
- No talking out loud or communicating with others by any means (with the exception of contact with the faculty member in an emergency)
- No leaving the room--this includes taking the computer.
- **The exam should be taken in the same room that the "Exam Environment View" is completed in/**
- There should be nothing except computer and external cameras/microphone on the desktop, tabletop or floor surrounding the learner .
- Bottles of water are allowed. All labelling must be removed
- All books, papers, notebooks, or other materials should be removed from the environment, unless specifically permitted in written guidelines for a particular examination
- No writing visible on desk or on walls
- No music playing
- No other computers running in the room used
- No headphones or ear buds allowed
- No hats, scarves or other headgear are allowed except with permission.

Learners are not allowed to use the following unless otherwise noted by instructor/exam giver:

- Excel
- Word
- PowerPoint
- Calculator (online/computer or handheld devices)
- Textbooks (online/computer or hardcopy books)
- Notes (online/computer or hardcopy notes)
- Pen and Paper (for the purpose of taking notes during exam or calculations)
- Other websites

Cameras must be an external device and placed on the lid of the laptop/monitor or in a location where it will have a constant, uninterrupted view of the test taker.

The web-cam must be correctly situated:

- Web-cam must be focused on individual taking exam at all times
- Nothing covering the lens of the camera at any time during the exam

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#### 13.7.4 Breach of Protocol

If the recording of the assessment flags a potential breach of these regulations, the learner will be notified within 5 working days of the assessment taking place.

If a breach of this protocol is confirmed, the learner will be subject to the disciplinary procedures of the College

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#### 13.7.5 Exceptions

If a learner is unable to take an assessment in the environment outlined above, they must attend the assessment at NCI or other agreed location.

If a learner is unwilling to have their data stored by the software provider, they must attend the assessment at NCI or other agreed location

### 13.8 ADMISSION AND REGISTRATION OF LEARNERS TO BLENDED LEARNING & ONLINE PROGRAMMES

**The College's admission and registration** policies apply to all learners applying to, and registered on blended and online learning programmes. (QAH 6)

**The College's administrative systems accommodate**

- online application,
- online interview,
- online registration, payment and curriculum selection processes.
- online requests for extension of assessment deadlines, deferral of assessment, deferral of programme
- online requests for application to financial assistance

Identification cards are posted to online learners

Learners on online or blended programmes are **subject to NCI's *attendance and engagement policy***. Engagement with online services will be monitored by the Education Engagement Officer. (QAH 5)

Learner records, including records of their interactions in an online environment are subject to **NCI's record management, retention and data protection policies**. (QAH 9)

### 13.9 ACCESS TO SERVICES AND LEARNING SUPPORTS

**The College's policy on access to learning supports applies to all learners regardless of their mode of delivery.** Learners are also given the option of availing of all supports and services face to face.

**The College's** IT infrastructure uses virtual desktops which allows off-campus access to all IT services regardless of the mode of delivery of the programme

The Library & Information service provides significant online resources in the form of e-books and journal articles. A postal service is available to off-campus learners where required.

The Maths Support service has developed a significant number of online resources available to learners available via the Virtual Learning Environment

Learning Supports e.g. academic writing are provided using online delivery technologies

Computing Support is provided using online delivery technologies

### 13.10 TRAINING AND SUPPORT OF STAFF DEVELOPING, DELIVERING AND SUPPORTING BLENDED AND ONLINE PROGRAMMES

Both lecturing and support staff are provided with training in both the pedagogic and technical knowledge needed to provide an optimum level of support for students who are accessing those supports online.

Key support staff in the following departments will be required to train with the online classroom systems.

- Computing support
- Maths support
- Learning support
- Disability support

Any staff member asked to participate in online delivery is required to undertake training sessions aimed at improving online pedagogy and ensuring consistent and appropriate teaching methodologies, regardless of prior online delivery experience outside of NCI.

Staff will have the option of retraining each academic year.

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#### 13.10.1 Training for Synchronous Online Delivery

Training on the use of the virtual classroom platform is currently modelled on University of Maryland Sloan online training. It addresses 5 key competencies

- System training
- Avoiding standard practice
- Discussing motivation
- Course design
- Institutional support

Training takes place over 3 sessions

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### 13.11 POLICY ON LEARNING RESOURCES AND DELIVERY MECHANISMS

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#### 13.11.1 Modules for Synchronous Online Delivery (See Figure 1)

Modules set for synchronous online delivery must be run through the module planning form (see figure 3 for example) and discussed with an instructional designer. This both allows the lecturer an opportunity to become cognisant of how their delivery may have to vary in an online mode, and allow for open and honest discussion and feedback about the planned delivery and assets with an online expert.

Each module will have a Learning Experience Monitor (LEM) assigned for the first 2-3 weeks of delivery. The LEM will be an individual trained in pedagogical approaches for online delivery who will assist lecturers in refining their technique and navigating the online system. They will also advise the IT department if there are any technical issues that require monitoring.

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### 13.11.2 Modules/Part Modules to be Delivered Asynchronously

Content developed for asynchronous delivery is subject to the following process. See Figure 2

1. Development of Traditional Content
  - a. The module developer develops content in accordance with the approved module descriptor in traditional text and/or slide style. This includes instructions with respect to assessments and how formative assessment should be accommodated.
  - b. Slides and accompanying text are proof read by a second reader who is a subject expert in the area
2. Treatment by the instructional designer.
  - a. The content is then reviewed by the instructional designer and converted into appropriate content using the VLE or other SCORM based tools.
3. The voice recording is prepared to be overlaid on the content.

The choice of content to be delivered in this manner should be chosen carefully as the resources required to maintain and update this type of delivery are significant. This mode is suitable for historical and/or theoretical concepts that are not likely to change frequently.

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### 13.11.3 Maintenance and Testing of Environments

The programme team will work closely with assigned contacts from the NCI IT department in order to ensure rigorous testing of both the online classroom systems and other technologies such as the virtual desktop environment are appropriately tested.

The IT department is responsible for specifying a set of minimum technical requirements for students to have on their home machines. These specifications will be based on the technologies identified in the Module Planning forms mentioned earlier in this document.

Figure 1: High Level Process for Synchronous Online Delivery

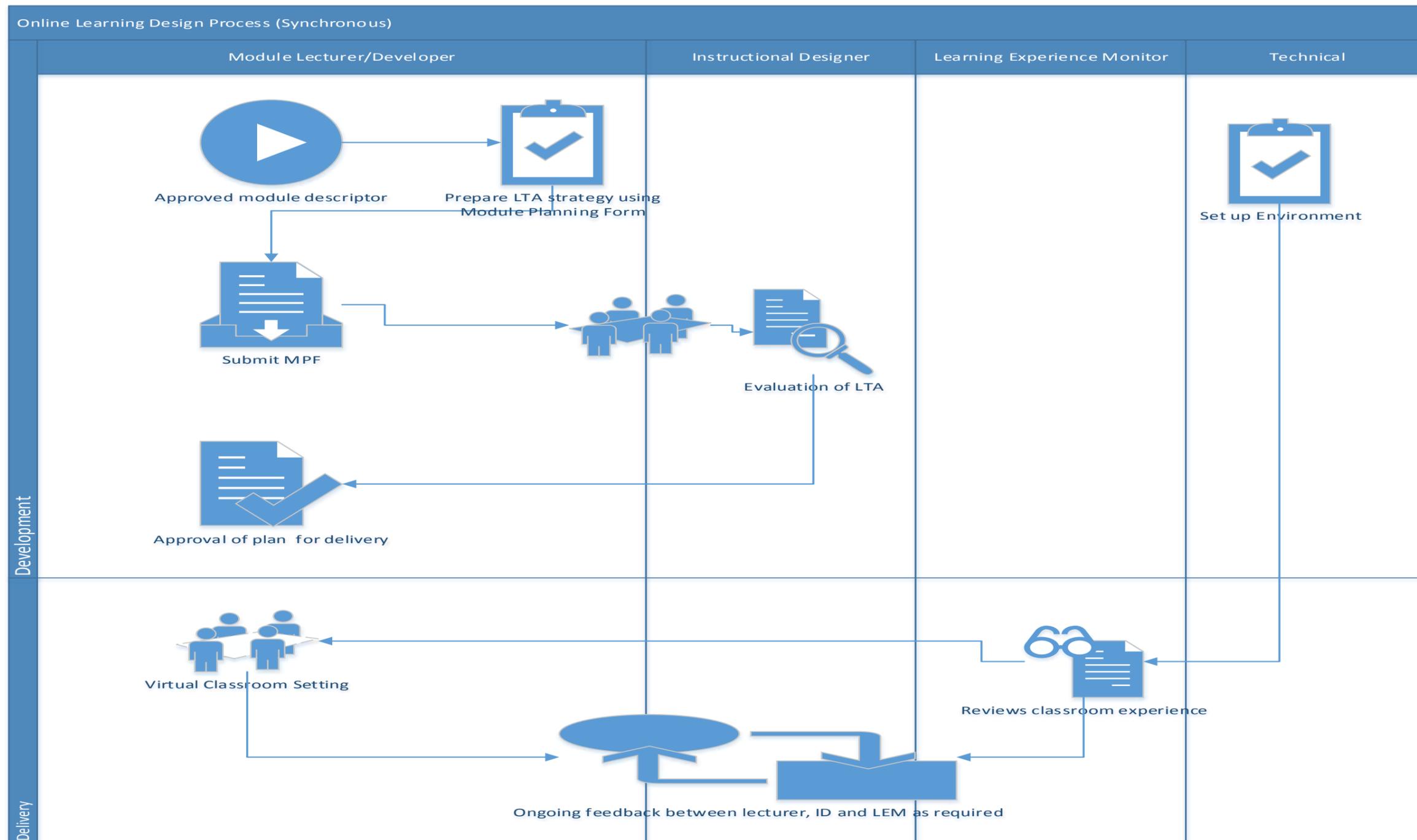


Figure 2: High Level Process for Asynchronous Online Delivery

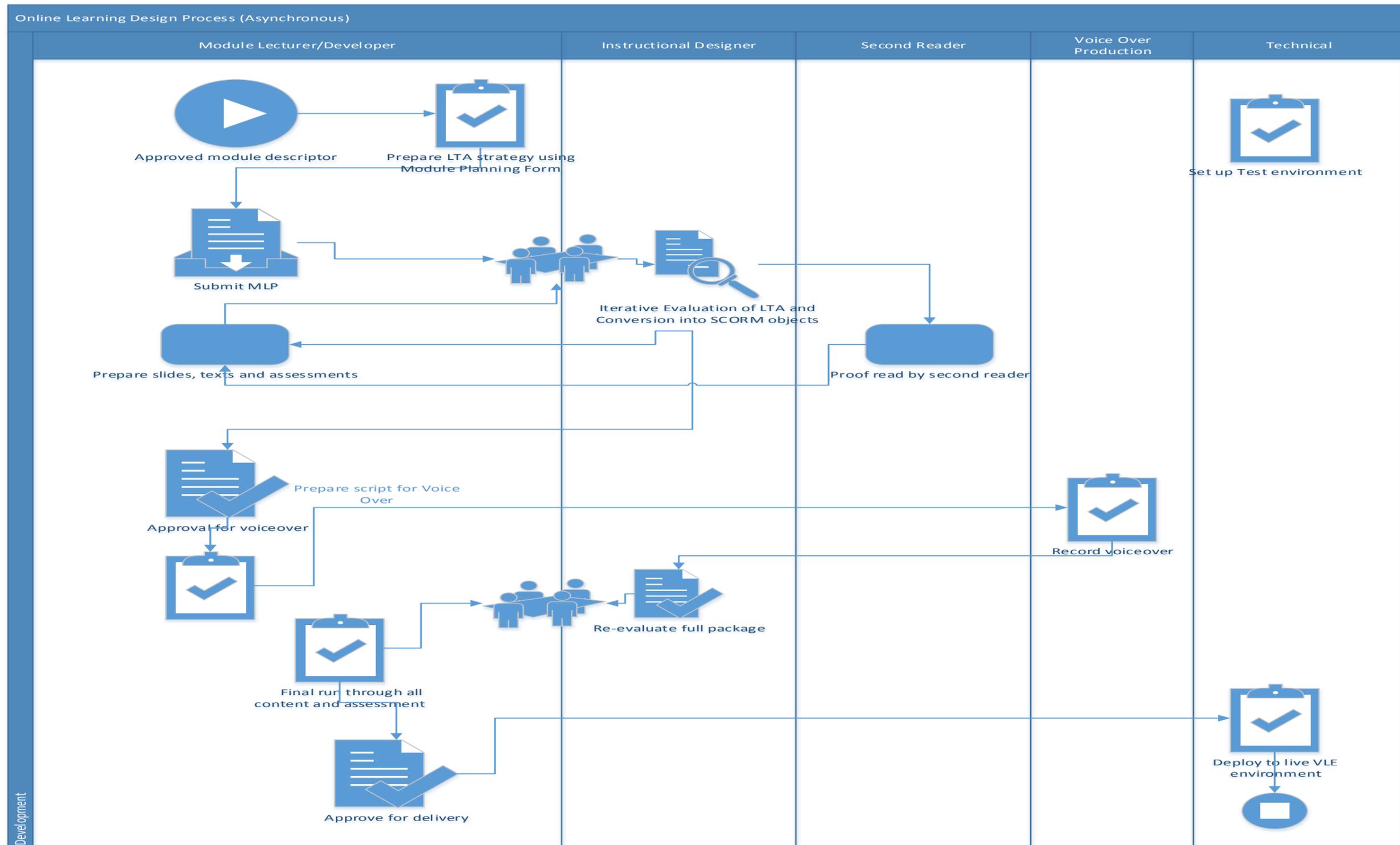


Figure 3: Sample Module Planning Form

Module Curriculum	Category			Delivery Strategy		
	Knowledge	Understanding	Application	Teaching	Learning	Assessment
<b>Insurance and Risk</b>						
Life insurance or assurance, concept of risk and risk transfer mechanism	X			TS		EX
Understanding protection needs	X	X		TS		CA
Forms of Arrangement/Ownership	X			TS		EX
<b>The Life Assurance Market</b>						
Parties in the market	X			OC		EX
Legal Forms ---proprietary, mutual, and captive.	x			OC		EX
Types of Insurance Intermediaries & scope of activity.	x			OC		EX
Creating/Termination of agent / principal relationship.	x			OC		EX
Re-insurance - types, purpose & their role	x			OC		EX
<b>Overview - Authorisation and Regulation of Life Companies</b>						
Authorisation of life assurance undertakings in Ireland.	x			OC		EX
Overview of Solvency & Reserves regulations.	x			OC		EX
Key: TS = Standard Tutorial, OC = Online Class; EX = Examination; CA = Coursework Assessment						