



Curriculum Review and Enhancement Process Steering Committee Final Report

March 2017



University College Dublin
Ireland's Global University



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Executive Summary

The UCD Strategy 2015-2020 highlights the institution's commitment to educational excellence through a strong student-focused, research-led, educational experience. UCD is committed to supporting and enabling its students to reach their full potential and as graduates UCD students will make a valuable contribution to society, carrying with them a strong sense of UCD's values: excellence, integrity, collegiality, engagement and diversity.

In support of attaining educational excellence UCD committed to undertaking a robust curriculum review of its taught programme portfolio. Having passed the ten year anniversary of the introduction of a fully modularised and semesterised structure, it was timely to consider a review of the now well-established modularised structure against the macro-level outcomes of the university's programmes.

In April 2015, a working group was tasked with developing an approach to the successful articulation of programme outcomes across the taught programme portfolio, as governed by the University Programme Board (UPB). The working group proposed a framework for an institutional curriculum review and enhancement process (CREP), which was approved by the Registrar and Deputy President for Academic Affairs in September 2015. The Registrar appointed the Curriculum Review and Enhancement Steering Committee (CRESC), to manage the project, ensuring delivery within an agreed timeframe of 15 months.

The CREP focused on the taught programme portfolio (over 600 programmes across the Programme Boards, Graduate School Boards and Boards of Studies). The process placed a strong emphasis on gaining a programme-level focus aimed at enhancing programme coherence and sequencing, and addressing some of the less positive effects of modularisation. A number of programme enhancement themes, identified by the University Management Team (UMT), informed the CREP, namely:

- embedding research in the undergraduate experience
- the development of discipline-specific as well as a wider set of attributes and capabilities
- effective and efficient definition and assessment of outcomes
- an expansion of the use of technology to enhance learning

Through the CREP, programme vision and values statements and programme outcomes have been articulated for 598 taught programmes. A curriculum mapping exercise was subsequently undertaken whereby contributing modules were mapped to the programme outcomes. Programme Review Teams finally drew together their mapping analysis and key programme information to discuss and agree opportunities for programme development and change.

Following the review discussions, Programme Action and Implementation Plans were developed, detailing the proposed programme enhancements, and the timeline, milestones and deliverables for implementation of the planned changes. As a final deliverable to the CREP, reports were submitted providing a high-level summary of the proposed actions for the suite of taught programmes associated with each of the university's Programme Boards and Graduate School

Boards. A number of recurring themes have emerged across the four CREP enhancement themes, as summarised below.

Enhancement Theme	Actions
Embedding research in the undergraduate experience	<ul style="list-style-type: none"> • Develop a structured approach across programme: developing students' research skills, engaging students with research and with carrying out research • Addition of research project into programmes • Resource lab and field-based research
The development of discipline-specific as well as a wider set of attributes and capabilities	<ul style="list-style-type: none"> • Develop transferable skills audit tool and e-portfolio • Develop internship and professional placement opportunities • Increase group/teamwork project opportunities
Effective and efficient definition and assessment of outcomes	<ul style="list-style-type: none"> • Address balance between formative and summative assessment • Audit assessment as a starting point for developing programme-level assessment strategy • Address provision of feedback at a programme level (quality, methods and timing)
An expansion of the use of technology to enhance learning	<ul style="list-style-type: none"> • Explore opportunities for online assessment and feedback • Incorporate e-portfolios evidencing students' skills development • Introduce software and simulation technology

The Curriculum Review and Enhancement Process was an ambitious process, which was successfully undertaken within the projected timeline for approximately 90% of the institution's taught programme portfolio. The majority of programme areas engaged well with the process, with the notable exception of Law, where no deliverables were submitted beyond the production of an initial draft detailing the local process plan.

The Curriculum Review and Enhancement Steering Committee Report provides an overview of the process structure and timelines along with details of system development supporting data capture in respect of the taught programme portfolio. The report makes recommendations in support of maximizing the full potential for enhancement of programmes as programme areas move to implement their action plans.

CRESC Recommendations	
1	Maintain/increase staffing levels to match UCD's ambition to deliver world-class education
2	Develop a plan for the upgrade and refurbishment of the institution's teaching and learning spaces, ensuring the physical/AV infrastructure matches our vision of a high quality educational experience
3	Review our existing educational quality assurance and programme review processes in light of CREP, and provide a framework to support regular evidence-based review activity
4	Develop an institutional strategy and define priority objectives in respect of technology enhanced and technology supported teaching and learning
5	Agree an institutional definition and expectation in respect of transferable skills
6	Develop institutional frameworks that guides programme teams towards the formulation of a programme-level assessment and feedback strategy
7	Leverage the Performance and Development system (P4G), which is currently being designed by HR, as a means of clarifying and providing for development needs and preferences
8	Support the engagement, particularly of early career faculty, with certified training in University Teaching and Learning
9	Review and hone existing professional development provision, particularly in the areas of assessment design and use of the VLE
10	Review and revise the Module Descriptor Tool to enhance the capture of more accurate and specific information on assessment
11	Incorporate the InfoHub tool developed to support the CRE process into the Curriculum Management System
12	Facilitate implementation of actions and retain a programme-level focus through consideration of policy, procedural and operational amendments
13	Publish Programme Vision and Values statements and Programme Outcomes
14	Highlight existing and developing/emerging good practice examples across the four CRE enhancement themes
15	Board-level implementation oversight plans, deliverables, milestones and key indicators of success should be formally submitted to UPB for approval and monitoring of progress
16	Undertake a critical review of CRE Process

1. Introduction and Context

The UCD Strategy 2015-2020 highlights the institution's commitment to educational excellence through a strong student-focused, research-led, educational experience. UCD is committed to supporting and enabling its students to reach their full potential and as graduates UCD students will make a valuable contribution to society, carrying with them a strong sense of UCD's values: excellence, integrity, collegiality, engagement and diversity.

Strategic Initiative 2 of the UCD Strategy has firmly established an institution-wide commitment to defining and achieving educational excellence, with a multi-layered approach taken, encompassing the student and staff experience of the curricular, co-curricular and extra-curricular educational experience. A key component of Strategic Initiative 2 has been the Curriculum Review and Enhancement Process (CREP), requiring a comprehensive appraisal of UCD's taught programme portfolio.

A fully modularised and semesterised structure, introduced in UCD in 2006, has resulted in significant gains for UCD students, allowing them to widen their choice of modules and study subjects beyond their core discipline. It has increased the students' capacity to become more internationally mobile during their studies and has enhanced the attractiveness of UCD as a university destination for international students for both short and longer-term periods. However, O'Neill et al. (2014) note that modularisation can also have a less positive impact on overall coherence, sequencing, and relevance of the content in a student's programme of study and curriculum design experts such as Diana Laurillard have recommended reviewing modularised curricula to ensure coherence between the overall educational objectives of the programme and the emerging learning patterns of students in the constituent modules (Laurillard, 2010).

A review of UCD's well-established modularised structure against the macro-level outcomes of the university's programmes was therefore considered timely, providing the opportunity to address perceptions of curriculum fragmentation, created through a predominant focus at individual module level, with a relatively weaker focus on programme-level integration and coherence.

2. Curriculum Review and Enhancement Process overview

In April 2015, a working group was tasked with developing an approach to and a framework for the successful articulation of programme outcomes across the taught programme portfolio, as governed by the UCD University Programme Board (UPB). The working group proposed a framework for an institutional curriculum review and enhancement process (CREP), which was approved by the Registrar and Deputy President for Academic Affairs in September 2015. The Registrar appointed the Curriculum Review and Enhancement Steering Committee (CRESC), to manage the project, ensuring delivery within the agreed timeframe. The CRESC membership is presented in Appendix 1.

The CREP was defined as a four-stage process, as outlined in Figure 1. The process placed a strong emphasis on the articulation of outcomes, with a focus on coherently organising, delivering and

assessing our curricula to embed and assure these outcomes for students. A number of specific programme enhancement themes informed the process, namely:

- embedding research in the undergraduate experience
- the development of discipline-specific as well as a wider set of attributes and capabilities
- effective and efficient definition and assessment of outcomes
- an expansion of the use of technology to enhance learning

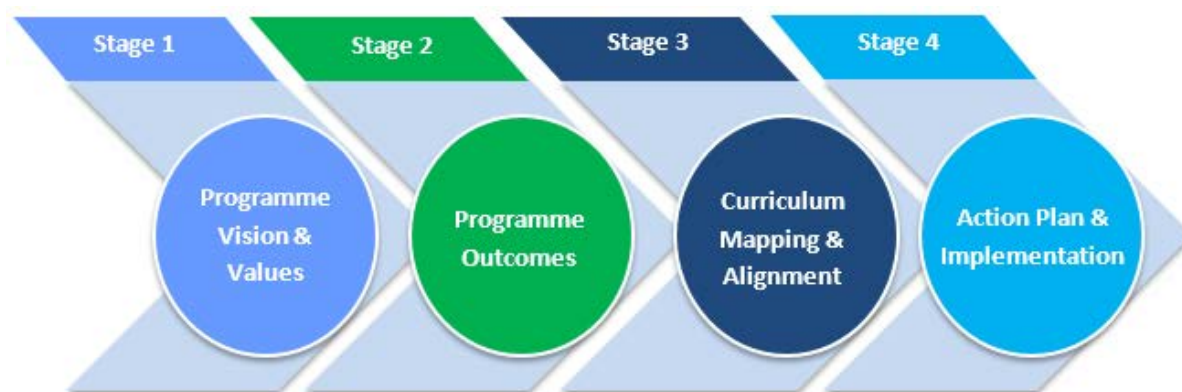


Figure 1. Curriculum Review and Enhancement Process

2.1 Organisational structure and communication

Curriculum review and enhancement is a key theme within the wide-ranging scope of work defined within Strategic Initiative 2, as shown in Table 1. Given the interdependency of the work programme themes, cross-theme progress communication and updating was required to allow successful delivery on the overall intent. Cross-theme communication was facilitated primarily through updates at the UMT Education Group and discussion within the Registrar's Strategic Initiative 2 Advisory Group.

Table 1. Overview of Strategic Initiative 2 work programme

Theme No.	Theme Title
1	Outcomes-led curriculum review and enhancement
2	Defining and enabling the UCD degree (structure, duration, flexibility, elective provision)
3	Expanding learning outside the classroom
4	Providing excellence in student academic advice
5	Supporting the providers of the UCD education experience
6	Measurement and demonstration of educational excellence

The CREP focused on the taught programme portfolio (over 600 programmes across the Programme Boards, Graduate School Boards and Boards of Studies). The Programme Boards and

Graduate School Boards, chaired by the Deans/Associate Deans and Graduate School Directors respectively, are responsible for the design, delivery and quality assurance of programmes under their remit. The Deans/Associate Deans and the Graduate School Directors were therefore key participants in the curriculum review and enhancement process, endorsing the vision, committing to the process and promoting and stimulating engagement over the course of the project. The process organisation chart is presented in Figure 2.

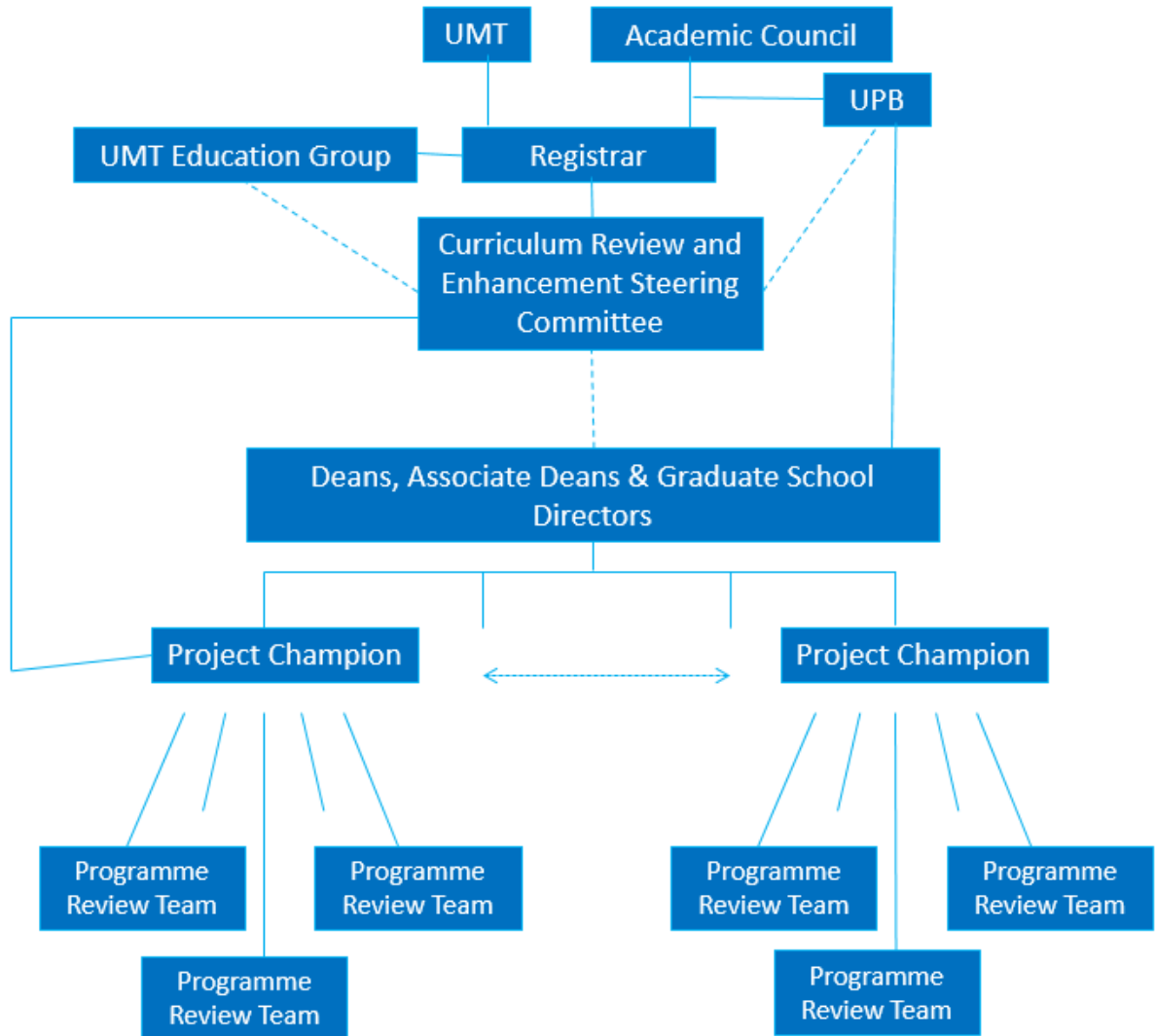


Figure 2. Curriculum Review and Enhancement Project Organisation Chart

In September 2015, the Deans/Associate Deans and Graduate School Directors were requested to seek expressions of interest for the role of a Project Champion for their programme area. The list of appointees is provided in Appendix 2. The Project Champion lead the CREP within their programme area, providing the necessary detailed planning, local organisational structure, co-ordination and support for programme review teams and stakeholder consultation. The Project Champions provided regular report updates to the Programme/Graduate School Board, with monthly progress reports submitted to the Chair of the CRESC.

In the case of Boards of Studies, the overall co-ordination and process management role was undertaken by the board Chair, or their nominee.

The CREP, being a large-scale institutional process, required the engagement of all academic staff, many support staff and students during the project timeline. Communication to the many internal stakeholders regarding the expectations relating to the nature and timing of their input was key to the success of the project and the CRESC maintained 'Communication planning' as a standing item on their agenda throughout the process.

2.2 Support and resourcing

Given the overall scope of work, the magnitude of the taught programme portfolio, the desired stakeholder consultation processes and the overall timeline envisaged, the task required a well-defined methodology. The methodology was based on good practice in curriculum design and enhancement, drawing on the literature and the experience and expertise available within UCD Teaching & Learning. Guideline documentation was developed and a series of workshops were run, to support the work of the Project Champions in developing expertise and progressing the review and enhancement process in a research-informed manner, at local level.

The Registrar acknowledged the level of commitment required on the part of the Project Champions, in order to successfully execute and deliver on the process. Facilitating this, the Registrar provided a resource in the form of a budget, allocated to the Project Champion's School, to permit a time commitment to the project. The Project Champions, subject to eligibility, were encouraged to take the opportunity to obtain CPD credit, aligned with the work being undertaken. Further, they were encouraged to develop an appropriate dissemination plan, enhancing both personal and institutional impact in the scholarship of teaching, learning and academic development.

2.3 Data capture and system support

Formal reporting deliverables and document submission templates and procedures were specified at the outset of the project. Given the significant amount of valuable programme data that was to be accumulated, a comprehensive data capture tool was designed with the support of the IT Services Management Services Unit. The tool provided a repository for the programme vision and values statements and the programme outcomes. Furthermore, the tool facilitated curriculum mapping for each programme, providing visual maps to aid Programme Review Teams in evaluating their programmes, enabling identification of any gaps or alignment issues. See below a screenshot of the Curriculum Review and Enhancement InfoHub tool.



Curriculum Review & Enhancement



- > **Curriculum Review & Enhancement**
 Help on how to use the Curriculum Review & Enhancement System ☆
- > **Programme Goals and Competencies by Area**
 Record and review programmes goals and competencies for majors associated with your programme board. ☆
- > **Vision/Values & Programme Outcomes by Area**
 Record and review vision/values statements and programmes outcomes for majors associated with your programme board. ☆
- > **Curriculum Review Programme Dashboard**
 View vision/values statements and programmes outcomes by programme board ☆
- > **Curriculum Map for My Programme Area**
 View the curriculum maps (summary tables) for majors associated with my programme board. ☆
- > **Curriculum Review Administration**
 Reports to aid administration and management of the curriculum review process. ☆
- > **Programme Directors listing**
 Add/Edit Programme Director (i.e. the academic lead) for each major. ☆
- > **My Accreditation Bodies**
 Maintain accreditation bodies ☆

2.4 Timeline and engagement

The Curriculum Review and Enhancement Process was an ambitious process, which was successfully undertaken within the projected timeline for approximately 90% of the institution's taught programme portfolio. Engagement was good across the majority of programme areas, with the notable exception of Law, where no deliverables were submitted beyond the production of a draft process plan. The CREP experience varied across the programme areas, with the Public Health, Physiotherapy and Sports Science programme area reporting a very high level of compliance with the process while the Engineering programme area noted significant difficulties in collecting programme interim reports, despite good engagement with mapping of programme modules to the expressed programme outcomes. Despite several reminders many interim reports are outstanding for this programme area. For the College of Social Sciences and Law graduate programme area, the main challenge reported was skepticism regarding the benefits of the process. On the other hand, Nursing, Midwifery and Health Systems particularly highlighted that the response to the CREP had been proactive and meaningful.

The timeline and task list for the curriculum review and enhancement process as outlined above is illustrated in Appendix 3. The enhancement timeline presented challenges across the programme areas. For Business, the more than one-year timeframe for the CRE project made it difficult to maintain momentum amongst Programme Directors and programme teams. In the Medicine programme area, 'project fatigue' was noted as one of the major challenges encountered. For the College of Arts and Humanities Graduate School, managing deadlines set by the Steering Committee was a major difficulty and extension of deadlines was necessary. Due to changes being proposed for undergraduate programmes in the College of Arts and Humanities and the College of Social Sciences and Law, it was noted that staff encountered overlapping and sometimes parallel discussions to the CREP, relating to the future structure of these programmes.

The summary in Table 2 provides high-level detail on process engagement. In addition, the tables in Appendices 4 and 5 indicate programme area engagement with the process.

Table 2. High-level process engagement information

Project Champion final reports have been received from 14 (of 15) programme areas
Programme Vision & Values Statements and Programme Outcomes captured in respect of 619 programmes
48% of programmes are 100% mapped
75% of programmes are \geq 80% mapped
13% of programmes are $<$ 50% mapped

2.5 Recommendations

It is recommended the Curriculum Review and Enhancement process is evaluated, to identify the specific strengths and weaknesses of the approach taken, to inform the structuring of future institutional-level projects and initiatives.

Programme areas have suggested that it might have been preferable if the CRE process had initially been undertaken on the undergraduate programmes, followed by a more specifically tailored process progressing for the graduate programmes.

3. Programme Mapping Key Findings

A summary overview of the key programme mapping findings is outlined below.

3.1 Alignment, gaps and repetition

In general, programmes are deemed to be aligned with the expressed outcomes. It was noted that revisions to programme outcomes will be forthcoming following mapping review discussions. Programme review teams have undertaken to review modules that are not addressing programme outcomes and programme structure changes have been recommended where programme outcomes are not deemed to be achieved or are insufficiently addressed through the current programme.

Programme review teams identified a need for more research-led project work, broader skills development across programme stages and professional career development training.

3.2 Assessment and feedback

Over assessment has been identified by many as an issue, however further analysis is required by many programmes to establish the true picture of the timing, type and weighting of assessments by

semester, stage and programme. Capturing more specific information on timing, weighting and assessment methods in the module descriptor would support this analysis. However if Programme Review Teams are planning to conduct an audit of assessment in the coming academic session they will be working with the information currently captured by module descriptors, supplemented by locally gathered information.

Science reported that detailed module information, presently being captured in a paper-based way, will inform a more detailed programme-level view and analysis of assessment. This information currently supports a requirement for Study Abroad students who need to provide their home institutions with detailed information about the modules they have taken at UCD. This paper-based capture approach is currently necessary, as the current module descriptor tool does not facilitate the capture of the level of detail required.

Programme Review Teams identified a strong weighting towards summative assessment of programmes with an over-reliance in some areas on end of semester examinations. An emphasis on assessment of discipline-specific knowledge and skills was been identified with wider skills noted as being less frequently assessed.

Feedback on assessments was identified as an issue with the development of a local feedback protocol actioned in one programme area. The use of peer feedback and online feedback mechanisms were highlighted for further exploration.

3.3 Assessment type

In general, the range of assessment methods being used is considered appropriate. Some programme areas, however, identified an overuse of particular methods and others note that student diversity is not being catered for in the range of assessment strategies currently in use. More guidance on the selection of appropriate assessment strategies is required. A specific need for training in the use of negotiated assessment methods, within masters programmes, has been highlighted.



Efficient and effective methods for assessing large classes were considered a challenge for some programme areas. Management and assessment of groupwork was particularly noted as an area requiring development and support. Further deployment of OSCE examinations in the early stages of health programmes was deemed appropriate, however resourcing was identified as a barrier to further expansion of this assessment mode.

The potential for technology to support enhancement of assessment was documented by many programme areas, however a lack of local expertise was identified as a barrier to progress. For those engaging in online assessment the issue of campus venues for running moderated online assessment was raised. Programme areas less experienced with technology enhanced learning and assessment highlighted a requirement for resources and training to support e-learning development.

While many programme areas identified a need for more formative assessment there was an observation that students may not engage in low-weighted or ungraded formative assessment.

3.4 Integrated assessment

Some programme areas noted that assessment across modules/subject areas is already in place (Stage 3 and Stage 4). Potential for integrated assessment, at particular programme stages, was identified in some programme areas. The modular system was viewed by some programme areas to be a barrier to programme or stage-level outcome assessment.

It was noted that research project and internship modules (typically 10 to 30 ECTS) address and assess multiple programme outcomes, generally incorporating learning from other programme modules.

The use of a programme ePortfolio evidencing achievement of programme outcomes was proposed. While it is not intended that the ePortfolio itself would be assessed, it would serve the purpose of drawing together assessment and learning information from across the programme.

3.5 Resources

Support for staff, tutors, industry engagement and the need for physical infrastructure and technology development were noted by many as high priority.

Many programme areas cited a need for education and technology advice and support to realise opportunities for technology enhanced learning. Specific staff training needs relating to aspects of assessment and feedback were identified (e.g. appropriate assessment strategies, online assessment and feedback, negotiated assessment, groupwork assessment).

3.6 Summary

Programme Review Teams have the ability to solve many of the issues identified without intervention or support. More effective use of the module descriptor would provide Programme Review Teams with more valuable and detailed assessment information. While more appropriate use of the current module descriptor tool would support programme review, further enhancement

of the module descriptor tool could serve to support programme areas. For example the collation of detailed module information could be usefully systematised. The ability to produce a semester assessment timing map from the collation of module descriptor information would also be beneficial as a design tool for Programme Review Teams and ultimately for students.

Training needs have been identified in respect of selection of appropriate assessment strategies/types, the use of groupwork and the use of online assessment tools/methodologies. Project Champions have alluded to the benefits of staff having engaged in Teaching & Learning qualifications and the development of appropriate and valuable expertise following this engagement with added enhancement for programmes/students. While many do not wish to study for a qualification they could benefit from some short, focused workshops/courses.

The ability to support moderated on and off campus online assessment requires further consideration.

4. Overview of Programme Area Enhancement Plans

4.1 Enhancement review themes

The expressed enhancement themes in respect of the Curriculum Review and Enhancement Process were:

- embedding research in the undergraduate experience
- the development of discipline-specific as well as a wider set of attributes and capabilities
- effective and efficient definition and assessment of outcomes
- an expansion of the use of technology to enhance learning

The primary actions emerging under each theme are outlined in this section of the report.

4.1.1 Embedding research in the undergraduate experience

Introduction

A common theme across all of the CREP final reports is that UCD programmes are designed and delivered by active researchers. From the design of module and programme content, to the pedagogical approaches taken within these, this is viewed as one of the primary means of embedding research in the curriculum, whereby students are exposed to the latest research and findings in their fields. There is a consistent commitment in the CREP reports to continuously review the communication of the research carried out in a particular discipline to undergraduate students (e.g. Architecture, Landscape, Planning and Environmental Policy (ALPEP)).

While the CRESC acknowledges the valuable impact of the sharing of research activities and findings with students, the literature, and the work of recent UCD Fellows in Teaching & Academic

Development¹, present a more holistic viewpoint on research-teaching linkages within the curriculum, highlighting the multi-faceted value and research opportunities associated with education within a research-intensive institution. The UCD Fellows' research highlights the interlinking and staging of opportunities to: develop an awareness of research activity, develop and practice research skills and undertake research, with significant impact reported where students have proximal opportunity to apply research skills following introduction of these skills within the curriculum.



Proposed actions

Proposed actions from a number of programme areas build on this multi-faceted approach. Some programme areas outline a staged approach within undergraduate programmes, commencing with stage one modules on research skills that introduce students to some key research tools such as critical thinking, literature searches, referencing and academic writing (Nursing, Midwifery and Health Systems (NMHS); Agriculture and Food Science (AFS); Engineering; Science; Arts; Business) while also addressing the transition to, and engagement with, academic life for a student in university.

In the latter stages of undergraduate programmes research projects form a central part of many degrees (Engineering; Science; Public Health, Physiotherapy and Population Science (PHPSS)) in addition to relevant work placements (AFS). There are plans to increase the size of these undergraduate research projects for some subjects (Arts; Medicine), in addition to introducing research project work into the penultimate year of some degrees (Science). Examples include embedding the redeveloped Veterinary Nursing project into the curriculum (Veterinary), the provision of clinical interactions to Biomedical Health and Life Science (BHLS) students who do not currently have them as part of their research project in addition to a module that deals with IP and commercialisation (Medicine). Some particular examples of research areas at undergraduate level include the sustainable and resilient urban future (ALPEP, Landscape Architecture), research through professional work experience (AFS), the increasing size of research projects in the

¹ UCD Teaching & Learning
<http://www.ucd.ie/teaching/resources/curriculumreviewandenhancement/learningthroughresearch/>

Mathematical and Physical Sciences (Science), the increased footprint of modules based on symposia delivered by UCD and invited researchers (Science), and plans to include more substantial research-led projects at level three in some subjects (Arts).

Most taught graduate degrees, by their nature, have a strong component of research work embedded in them through the completion of a research-based dissertation (Arts; Science; Engineering; AFS). The content is often delivered in small-class colloquium or research seminar style (Arts). Some CREP reports highlight the challenge faced when students return to research projects in graduate education after a prolonged absence (Medicine) and the steps needed to address this issues. Research skills modules are also delivered in stage 1 of some taught graduate programmes (ALPEP; Arts). Some particular examples of research at taught graduate level includes the dissertation module in Equine Sports Management (Veterinary), the four dissertation pathways in the Nursing Masters programmes (NMHS), urban design and environmental policy (ALPEP), the MSc in Environmental Science (Engineering), capstone research projects and consultancy type projects (Business), project based experiential work (PHPSS) and collaborative research projects with other institutions (Arts).

Resource implications are cited throughout the CREP reports for the embedding of research either through the planning of these initiatives (BHLS, Medicine), laboratory and field based research (AFS) and seed funding for research based initiatives in the graduate curriculum (Science).

Recommendations

The CRESC recommends engagement with the literature on research-teaching linkages, including the contribution to scholarship made by the UCD Fellows in Teaching & Academic Development. Particular consideration should be given to the sequencing and support within programmes to 1) develop research awareness, 2) acquire and apply research skills and 3) engage in undertaking research.

It is further recommended that good practice examples of integrated structured approaches to embedding research in the curriculum are shared.

4.1.2 The development of discipline-specific as well as a wider set of attributes and capabilities

Introduction and Context

Submitted Programme Board reports address the topic of transferable skills, in the sense of wider attributes and capabilities, in different ways. In some areas, discipline-specific and wider capabilities and attributes are seen as knowledge based areas such as accounting, contract law and research skills and in other reports reference is made to written and oral communications, presentation skills and, for example, team work. Transferable skills within the curriculum appear therefore to have emerged and evolved locally and organically in line with the changing needs of disciplines and professions (*for example the need for students of engineering to grasp basic law and business skills or to meet the requirements of professional bodies such as clinical competency to practice in areas such as Nursing*).

However, a broader external perspective when defining and developing students' transferable skills is less often apparent and one report only (Agriculture and Food Science) situated the development of transferable skills within the broader context of Ireland's projected skills needs, citing the National Skills Strategy 2025 (Department of Education and Skills), The 2015 National Employer Survey: Employers' Views on Irish Further and Higher Education and Training Outcomes (Higher Education Authority) amongst other references when addressing skills. As such, UCD may wish to consider whether labour market intelligence and reports from statutory bodies such as the Department of Jobs, Enterprise and Innovation, the Department of Education and Skills and the Higher Education Authority have a role to play in prompting regular review and action to close national skills gaps and facilitate further Ireland's economic recovery and development. The National Skills Strategy cites a need for more graduates with appropriate:

Higher level cognitive skills, interpersonal skills, strategic skills such as leadership, management of virtual teams, project management, cultural awareness, customer service and care, business planning, Technology based skills, e-commerce, marketing and selling, foreign language capability, design and creative skills.

The national position around students' broader skills, capabilities and attributes is not all negative, however, and the 2015 National Employer Survey: Employers' Views on Irish Further and Higher Education and Training Outcomes reported that employers (particularly large employers) were very satisfied with graduates across a range of workplace and personal attributes. These included ICT; teamwork; communication; adaptability and flexibility; positive attitude and energy. A lower level of satisfaction was noted for foreign language capability, entrepreneurial skills and business acumen/awareness.



Skills referenced in Programme Board Reports

There was a degree of variation in the extent to which the Programme Board Reports addressed the development of transferable skills. This ranged from no explicit reference to transferable skills in one report through to very well developed ideas that are in train, for example, the *Transferable Skills Mapping Tool and e-portfolio* being developed at the UCD School of Agriculture and Food Science to enable students to develop and document evidence of their transferable skills.

Table 3. Summary and Categorisation of Transferable Skills referenced by Programme Boards.

General Skills & Knowledge	Management Skills	Attitudes and Attributes
Business skills e.g. accounting, business writing	Presentation skills	Professionalism (Inc. preparation for internships)
Legal skills e.g. contract	Team work	Social Responsibility
ICT	Leadership	Global citizenship
Research Skills	Managing information	Independent learning
Communication <ul style="list-style-type: none"> • written • oral 	Negotiation	Critical thinking
CV production	Project Management	Decision-making
Interview skills and techniques		Entrepreneurship

Enabling the development of transferable skills

A range of vehicles by which Programme Boards see transferable skills being developed at UCD are proposed and in the main, may be summarised:

- Introduction of a Professional Placement Module (*for example in Chemistry, Geology, Biomolecular and Biomedical Sciences, modules in Science and Biology and Environmental Sciences*).
- Development of new internship opportunities (*for example in Arts and Humanities, Computer Science & Data Science*),
- Enhancement of existing internship/placements (*Clinical Nutrition & Dietetics- Public Health, Physiotherapy and Sports Science*),
- “Practical” Placements e.g. Planning Practice Independent Project module to include work shadowing (*Planning- Architecture, Planning and Environmental Policy*),
- Making use of on-line portfolios/skills audits to help students recognise, develop and evidence skills (*School of Agriculture and Food Science*),
- Growth of group projects to develop team work skills although whether the dynamics of effective groups, preferred team work styles etc. will be in place for students prior to exposure to group projects is not clear (*for example, Graduate Taught in Science*,
- Introduction of assessment methods that develop transferable skills (*for example, the BA programme, Child Art Psychotherapy- Medicine, professionalism- Veterinary Medicine*),
- Using expertise at the Career Development Centre to develop students’ transferable skills (*for example, Agriculture and Food Science*).

Whether skills are developed implicitly through activities embedded within the curriculum or develop outside the classroom, it is often important that students are facilitated in recognising the skills, attitudes and attributes developed at University, can identify their skills gaps and can plan to redress these.



Students need to be able to articulate their skills in writing and again verbally when engaging in graduate recruitment and selection. In addition, students need to appreciate and understand the application of skills in environments and contexts external to UCD. This may require facilitation and support for students as they progress through their university career.

Recommendations

The CRESC recommends the development of an institutional definition of transferable skills to clarify the expectations in respect of our programme offerings. The CRESC further recommends that programme areas be encouraged to draw on the expertise and resources of the Career Development Centre in respect of the skills development of their students.

Programme action and enhancement plans should be informed through consultation with the literature and government reports on, for example, future skills needs. In the Irish context, this may include but is not restricted to, the National Skills Strategy, 2025 or national surveys of employers available at that time. Programme Boards should be requested to give further consideration to how the literature and documents cited can serve to enhance skills development within their programmes.

It is recommended that students should be facilitated, through their programme of study, in preparing to develop and practice skills such as team work and delivering presentations and are not only exposed to the activity itself (*For example, being required to deliver a presentation does not necessarily develop good presentation skills. Being exposed to group work does not necessarily enable students to understand the dynamics of how teams form and operate and the roles people play within them. Preparatory sessions should be built into modules and delivered by Faculty or appropriate support staff such as Career & Skills Consultants*). Programme review teams and programme coordinators should be encouraged to incorporate opportunities for students to both prepare for and practice pertinent skills within their programme.

4.1.3 Effective and efficient definition and assessment of outcomes

Introduction and Context

Enhancement plans focus on establishing the extent of assessment and feedback currently in place across programmes with a view to using the information for future programme enhancement. There is a desire to provide more opportunities for formative assessment, to optimize the range of assessments offered, and to investigate opportunities for assessment across a number of modules or at stage or programme level. These approaches are in line with current thinking on the effectiveness and efficiency of assessment for staff and students at third and fourth level (O'Neill, 2015). Descriptions of assessment in terms of assessment *of* learning (summative) and assessment *for* and *as* learning (formative assessment) are evident in several enhancement plans; for others ensuring this variety in assessment will form part of future enhancements. It is clear that getting the “programme view” of assessment will be critical for enhancement if a shift in the summative/formative assessment balance, or a reduction in overall assessment load, is to be achieved.



Assessment and feedback

Several enhancement plans (Agriculture and Food Science (AFS); Engineering; Medicine; Science; Veterinary) commit to conducting an audit of existing formative and summative assessments and feedback across programmes to establish the current state of play and to develop programme level assessment strategies. In particular, there is a lack of data on formative assessment. Following review by programme teams the information collected will be used to make changes, where deemed necessary, to the current level, weighting and timing of assessments, and to the provision of feedback to students.

The development of tools to capture the assessment and feedback data in a usable format is identified in several enhancement plans (AFS; ALPEP; Veterinary). Better management of assignment deadlines is also identified (Engineering) and the use of an online Calendar to capture submission dates across some programmes will be piloted (ALPEP).

Consistency in assessment workload will be considered by evaluation of the type, number and weighting of assessments of modules of similar and differing credit weightings (e.g. 5 versus 10 credit modules) (ALEP; NMHS). Over assessment is identified in some plans (Medicine, Social Science and Law) and there a desire to reduce the level of assessment (AFS; Arts; Medicine; Science, Social Science and Law). The latter could be achieved through a reduction in continuous assessment or its retention with elimination of the end of semester examination (Science).

A desire to ensure adequate and timely provision of feedback (Arts; Business; Science; Veterinary) and to initiate or increase peer assessment or peer-to-peer feedback (ALPEP; Veterinary) is expressed. In some instances, a commitment to provide opportunities for staff to upskill in methods of effective assessment and feedback, or to share best practice in assessment and feedback, is made (AFS; ALPEP, Business, NMHS).

Assessment types

More formative assessment and the use of e-portfolios, Blackboard functionality, online methods and in-class smartphone apps for assessment purposes are identified in some enhancement plans (AFS; ALPEP; Arts; Science).

There are plans to agree a variety and balance of assessment types across programmes (ALPEP; Arts; Business) and to introduce 'must-pass' components in some programmes (e.g. Medicine; Science).

Integrated assessment

Some enhancement plans express a commitment to investigate options for stage or programme assessment (AFS; Arts; Science, Veterinary). Others mention assessment across a number of modules (e.g. ALPEP; Medicine) or the creation of larger credit value modules (Medicine, NMHS, Science); both approaches could contribute to a reduction in overall number of assessments.

Conclusions

Enhancement plans varied in their responses in the area of effectiveness and efficiency of assessment. For some, getting a picture of assessment at a programme level is identified as a first step towards future enhancement. Others identify particular areas for enhancement including more formative assessment and feedback or reducing overall assessment. For some, no enhancement was deemed necessary.

Recommendations

To enable future enhancement of assessment practices across programmes it is critical in the CRESC's view that a system be developed to report on assessment at a programme level.

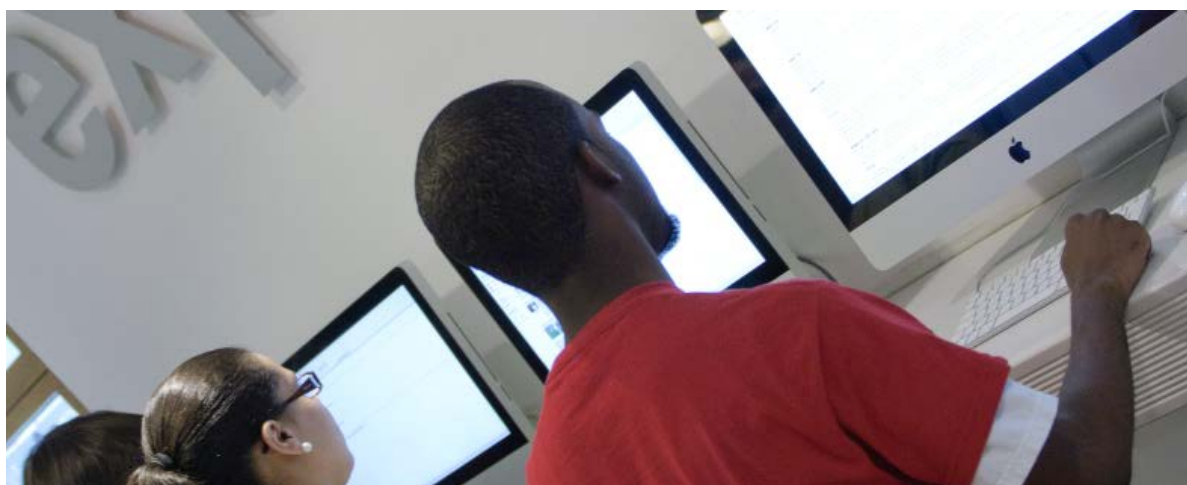
The programme coordinator's role in respect of oversight and direction of assessment strategies should be clarified.

4.1.4 An expansion of use of technology to enhance learning

Introduction and Context

Laurillard (2012, p2-4) notes the strong link between technology and education, while remarking that education has predominantly adopted technology rather than driven its development for educational purposes. Laurillard recommends challenging technologies to serve educational enhancement, noting however that we need clarity of purpose and direction in order to harness the potential.

The recently published Department of Education and Skills Action Plan for Education 2017(DES, 2017), sets out the national ambitions across all levels of education in Ireland. This document highlights the development of high-level ICT skills at NFQ Levels 8 and above, in addition to leveraging technology to enhance teaching, learning and assessment. The document confirms a commitment to implementation of the recommendations of the Roadmap for Enhancement in a Digital World 2015-2017 (National Forum, 2015). It is anticipated that the successful implementation of these recommendations will lead to the development of institutional-level technology enhanced learning (TEL) strategies and implementation plans.



The use of technology in teaching and learning in UCD currently spans the full spectrum from web-facilitated delivery (i.e. use of VLE to support face-to-face teaching), to blended and online delivery of modules and programmes. The Project Champion Final Reports convey programme area recognition of the potential for technology enhancement of the learning experience, however it is evident that the level of expertise and planning is variable across programme areas. In many instances staff training is cited as an enabler for TEL development, with the availability of local expertise and time frequently noted as constraints in the current context.

Technology Enhanced Learning Planning

The School of Nursing, Midwifery and Health Systems and the School of Veterinary Medicine have developed TEL strategies. These Schools have in-place a SNMHS Technology-Enhanced Teaching and Learning team and a School VetEd Hub, respectively, to support the implementation of their strategies in respect of TEL, including online and blended learning development. The School of

Business also supports an eLearning team who work with staff to facilitate the adoption of appropriate technology to support learning.

The School of Agriculture and Food Science will consider technology development in respect of the enhancement of assessment and learning, and propose an audit of their current provision to support the development of a School Assessment Strategy. The School of Architecture, Planning and Environmental Policy cite a number of areas for development and propose the development of a strategy for improved use of technology in their curricula, noting strong potential for cross-programme collaboration.

Technology Enhancement Opportunities Identified

Opportunities for TEL have been identified in respect of assessment, most particularly formative assessment, and feedback (AFS; ALPEP; Business; Medicine; NMHS; Veterinary; Arts). The use of ePortfolios has been proposed (AFS, Medicine; Veterinary; Academic Affairs) with particular reference to evidencing skills development across modules and programmes.

In general, programme areas are proposing blended learning enhancements, however the development of online modules is proposed as an enabler for recruitment, facilitating flexibility in respect of part-time and CPD learners (Engineering; Medicine). Many programme areas already successfully deliver online opportunities for distance learners.

Introduction of simulation technology, and a variety of software training opportunities have been proposed to enhance learning and skills development (Engineering; ALPEP; Business; Medicine).

Training and Resources

A variety of resourcing and training needs have been highlighted across the programme areas, including:

- College Educational Technologists
- Staff training (including part-time and overseas staff)
- Tutor training
- AV support (clinical site linking)
- IT support: hardware, software, licences, new technologies
- Newman technology-related facilities development and support
- Multi-media language facilities

Recommendations

It is evident that programme areas recognise the potential for technology enhancement of their curricula. UCD has an opportunity to take a planned approach to technology enhanced learning, supporting programme areas in planning, resourcing and upskilling. A collaborative approach to technology enhancement has the potential for greatest impact. The CRESC recommend that UCD develops a strategy addressing technology enhancement of learning, building on the good practice already in place and providing institutional vision and targets, in respect of digital capacity, including facility investment and training and development plans. Further, this strategy should encompass expectations in respect of the role of technology in supporting personal learning and progression.

4.2 Staff Support and Training Requirements

Background: Professional Development for those who teach in higher education

The European Commission's modernisation agenda for higher education in the EU commits to improving the quality and relevance of teaching and learning as one of five key priorities. Towards addressing this priority, the High Level Group on the Modernisation of Higher Education has issued two reports to date. The first report focused on the importance of continuous professional education of teachers to enable them to update their skills throughout their academic career, while the second report articulated the imperative to embrace technology to enhance teaching and learning across an expanded higher education system. The National Forum for the Enhancement of Teaching and Learning, informed by European trends, recently launched the National Professional Development Framework for all staff who teach in the Irish higher education sector. The framework provides guidance for the professional development of individuals across five domains: (i) The Self; (ii) Professional Identity, Values & Development; (iii) Professional Communication & Dialogue; (iv) Professional Knowledge & Skills; and (v) Personal & Professional Digital Capacity.

Through the Irish Survey of Student Engagement (2016), our students have raised concerns about the effectiveness of our teaching and assessment practices² and it is incumbent on us to address areas of weakness through a range of interventions including the professional development of staff.

Programme Area Action Plans: Staff Support & Training Requirements

The majority of action plans identified a need for some form of staff training and guidance to support the implementation of planned enhancements. Not unexpectedly the training needs were broadly aligned to the CRE enhancement themes, though heavily weighted towards two of the four themes:

- Effective and efficient assessment
- Expansion of the use of technology to enhance learning.

The interplay between these two themes is clearly evident in the numerous references to upskilling staff in aspects of technology-enhanced assessment, e.g. online MCQs, audio feedback, assessment tools in Blackboard.

² UCD results are statistically significantly lower than the Irish University Sector on all items of the 'Effective Teaching Practices' index. The items that contribute to this index are:

- Provided prompt and detailed feedback on tests or completed assignments
- Provided feedback on a draft or work in progress
- Used examples or illustrations to explain difficult points
- Taught in an organised way
- Clearly explained course goals and requirements

Table 4. Summary of the main training needs identified, linked to CRE enhancement themes

Theme	Topics
Effective and efficient assessment	<ul style="list-style-type: none"> ● Assessment review/audit & development of an assessment strategy for school/programme (e.g. <i>Agriculture & Food Science; Science Grad & UG</i>). ● Formative assessment and feedback (e.g. <i>Agriculture & Food Science; Architecture, Landscape, Planning & Environmental Science</i>). ● Effective and timely feedback, across a variety of assessment types & teaching contexts (e.g. <i>Veterinary Medicine; Agriculture & Food Science</i>). ● Peer assessment (e.g. <i>Architecture, Landscape, Planning & Environmental Science</i>). ● Assessment across modules - integrative assessment (e.g. <i>Nursing, Midwifery & Health Systems; Architecture, Landscape, Planning & Environmental Science; BA</i>). ● Assessing group work (e.g. <i>BA</i>). ● MCQ/SBA assessment, including online formats (e.g. <i>Agriculture & Food Science; Diagnostic Imaging; Veterinary Medicine</i>). ● Clinical Skills teaching & assessment (<i>Nursing, Midwifery & Health Systems</i>).
Expansion of the use of technology to enhance learning	<ul style="list-style-type: none"> ● Scope and use of technology to support assessment (e.g. <i>Business School; Nursing, Midwifery & Health Systems; Veterinary Medicine</i>). ● Better use of Bb functionality, including collaborative learning tools, assessment tools & GradeCentre (e.g. <i>Architecture, Landscape, Planning & Environmental Science; Medicine</i>) ● Technology Enhanced Learning (e.g. <i>Science UG & Grad; Engineering; BA</i>). ● Design & development of online modules, using eLearning authoring tools (e.g. <i>Engineering; Architecture, Landscape, Planning & Environmental Science; Diagnostic Imaging</i>). ● Use of technology for delivering feedback, e.g. audio feedback (e.g. . ● Assessment using ePortfolio (e.g. <i>Diagnostic Imaging; Veterinary Medicine</i>). ● Virtual simulations (<i>Health Sciences</i>).
Transferrable skills development	<ul style="list-style-type: none"> ● Development and assessment of transferrable skills embedded within the discipline (e.g. <i>Agriculture & Food Science</i>). ● Support and guidance around the development of internships (e.g. <i>Science Grad & UG</i>).
General Teacher Development & other topics	<ul style="list-style-type: none"> ● Training for demonstrators in different teaching, learning and assessment strategies (<i>Science UG</i>). ● Subject-specific tutor training (e.g. <i>Arts & Humanities</i>). ● Development of a Programme Director Guidebook (e.g. <i>Business</i>). ● Staff mentoring (e.g. <i>Architecture, Landscape, Planning & Environmental Science</i> ● Active learning strategies (e.g. <i>BA</i>). ● Cultural awareness and diversity training (e.g. <i>BA</i>). ● Critical Incidents Training (e.g. <i>BA</i>).

In the main, the reports did not specify the preferred type/format of training (e.g. self-study; peer networks; workshops/seminars; structured projects; accredited training) nor the level of training required (e.g. novice, intermediate, advanced). UCD Teaching and Learning and IT Services are identified by some Programme Areas as current or potential sources of training and assistance. A number of programme areas state that faculty are encouraged to undertake formal teacher development/training, though this isn't always feasible due to multiple demands on staff time.

Many of the training topics identified in the action plans are covered through existing professional development provision, such as [Professional Teaching Qualifications](#), [EdTecX series](#), [Blackboard and multi-media training](#), school/college-led seminars, [one-off workshops and symposia](#). Nevertheless, existing provision should be reviewed and honed in light of the CRE process and the action plans.

Each of the action plans without exception highlighted the importance of maintaining or increasing staffing levels (pay budgets) to support the University's ambitions to deliver a world-class education experience, to include faculty, support/administrative staff, technical staff and tutors/demonstrators. Access to an educational technologist within one's school/college was cited as a key enabler of the adoption of technology enhanced learning approaches. Colleges without these staff identified this as a clear need (e.g. Engineering; Science; Arts and Humanities).

Finally it was emphasised that staff need time, space and encouragement to engage meaningfully in educational enhancement and development activities. It was acknowledged that staff who had received certified training had implemented enhancement within their module portfolio.

Equipment and Facilities

- Poor quality teaching facilities and AV equipment in the Newman Building were identified as a barrier to increased use of technology enhanced learning.
- A multimedia language lab is a key requirement for effective teaching and learning of modern languages
- School of Architecture, Planning & Environmental Policy identified their lack of technical resources in Richview, such as hardware and software licenses, as a serious concern.

4.3 Overview of Enhancement Timeline

It is evident that programme areas are aware of their responsibilities in respect of the implementation of the action and enhancement plans. Despite this awareness, however, the level of detail provided in respect of the programme board implementation oversight plans (timelines, milestones and deliverables) did vary considerably. Nursing, Midwifery and Health Systems have outlined timelines and deliverables for the period Sept 2016-2018 on a Gantt chart, while Agriculture and Food Science had provided detailed programme-level timelines with a number of school-level enhancement issues identified, including the development of a 'Transferable Skills' mapping tool/e-portfolio and addressing assessment and feedback. Medicine had identified three time points for reporting purposes in 2017 (April, August and November), however, no detail is provided in respect of deliverables at these reporting points. The report does note that the Project Champion in this area will communicate with Programme Directors in respect of the three reporting points. The Science programme board area outlines plans to review progress at the end of each semester, with an annual board meeting dedicated to sharing of curriculum enhancement experiences.

Details across board areas in respect of the programme board oversight plans, timelines, milestones and deliverables, are presented in Appendix 5.

5. Summary

The Curriculum Review and Enhancement Process was an ambitious process, which was successfully undertaken within the projected timeline for approximately 90% of the institution's taught programme portfolio. The process enabled a programme-level focus, and the expression and systematic capture of valuable programme information in the form of vision and values statements and programme outcomes. Programme review was assisted by the development of a programme mapping tool, which facilitates mapping of programme core and option modules to the expressed programme outcomes. Furthermore, the tool functionality was augmented to capture higher-level programme goals and more detailed programme competencies, supporting the accreditation processes undertaken in professional programme areas. The valuable information now captured should be fully exploited, and made available in a useful way to students, faculty, employers, prospective students and other appropriate stakeholders.



Four specific enhancement themes provided particular focus for the review and this report has summarised the main themes and actions emerging under these enhancement themes. Further the CRESC has made a number of recommendations following review of the programme area action and enhancement plans, as summarised in Table 5. There was a recurring request across programme areas for the review and revision of the module descriptor, to support the provision of better quality data on assessment across programmes.

Successful implementation of the programme enhancement action plans as currently articulated does not in the main require significant changes to institutional policy or regulations. Whether or not this reflects a compatibility between desired programme enhancements and existing

governance infrastructure, or rather reflects a cautious approach to change or lack of understanding of the possibilities inherent in the underpinning principles of the first iteration of CREP is unclear. As the process of ongoing curriculum review and enhancement rolls forward, it may be that further requirements are identified.

The need for staff support and training came through strongly, however clarity should be sought on the level and type/format of training required. Many training topics identified are already accommodated through existing professional development provision, however existing training provision should be reviewed in light of the needs identified through the CRE process. The value of certified training is acknowledged in the Project Champion Final Reports, however it has been emphasised that staff need encouragement, time and space to engage in training and development activities.

All programme areas highlighted the importance of maintaining or increasing staffing levels (faculty, support and technical staff, tutors and demonstrators) to support the institutions ambition to deliver world-class education. Equally, the need for clarity around role descriptors for Stage and Programme Co-ordinators was highlighted as requiring University level action.

Table 5. Actions following CRESC review of Project Champion Final Reports

Theme	Actions
Embedding research in the curriculum	<ul style="list-style-type: none"> ● Engage with literature on embedment of research in the curriculum (e.g. UCD Fellows work, UCL Connected Curriculum) ● Showcase good practice examples of research embedment
Development of skills and capabilities	<ul style="list-style-type: none"> ● Agree on institutional definition of transferable skills ● Engage with existing skills needs literature and government documents (e.g. National Skills Strategy 2025, National Employer Survey 2015) ● Provide opportunities for students to develop skills in addition to practicing these skills ● Draw on the support of the UCD Career Development Centre ● Flex the timetabling model to incorporate internships, work placements, and co-curricular activities
Effective and efficient assessment	<ul style="list-style-type: none"> ● Larger credit modules to address over-assessment ● Develop institutional framework for integrated assessment ● Review and revise module descriptor to facilitate capture of better quality data on assessment and feedback ● Engage with resources and participate in training, e.g. effective feedback on assessment ● Enhance assessment supports e.g. Plagiarism identification tools and policy, Supervision guidelines
Expansion of technology to enhance learning	<ul style="list-style-type: none"> ● Clarify UCD's strategy/objectives in respect of technology enhanced learning ● Review technology provision across teaching environments (including clinical sites) ● Engage with resources and training opportunities

	<ul style="list-style-type: none"> • Showcase good practice examples
Staff support and training	<ul style="list-style-type: none"> • Clarify roles and responsibilities • Clarify specific development needs and preferences (e.g. topics/format/level/timing) • Encourage engagement in formal certified training

Having completed a significant review task the CRESC recommend that the institution harnesses the potential for significant enhancement over the coming years. The institution must have clear oversight of progress of implementation of actions, against agreed timelines. To support this, Chairs of boards must ensure that they have clear workable implementation plans and timelines in place, to allow them to drive the implementation of the expressed enhancement plans, providing periodic reporting on progress at institutional level. Programme Boards, Graduate School Boards and Boards of Studies should define key indicators of success for their implementation plans in order that they may monitor and evaluate the impact of enhancement over time.

Through the CRE process a programme-level focus and oversight has been obtained. It is important that this programme-level focus is maintained in respect of continued curricular enhancement and development. Staff contributing to programmes must have a knowledge of the programme vision and values and the expressed programme outcomes to which their module(s) are contributing. The value of programme team collaboration around curriculum enhancement, coupled with engagement with key stakeholders and informed by scholarship, must be reinforced, building on the CRE process experience.

It is recommended that an analysis and critique of the Curriculum Review and Enhancement Process be undertaken in the near future, in order to identify the strengths and weaknesses of the process and inform the structuring of future institutional level projects and initiatives. The approach taken should elicit feedback from key process stakeholders and contributors to the process, through interviews, questionnaires and focus group sessions.

6. Recommendations

Recommendation 1: Maintain/increase staffing levels to match UCD's ambition to deliver world-class education

Many programme areas identify decreasing faculty and staffing levels, with the loss of specific expertise, as significant challenges to the delivery of their programmes. The institution must ensure that staffing levels are maintained at an appropriate level.

Recommendation 2: Develop a plan for the upgrade and refurbishment of the institution's teaching and learning spaces, ensuring the physical/AV infrastructure matches our vision of a high quality educational experience

A review and evaluation of our teaching and learning spaces should be undertaken to inform the development of an upgrade and refurbishment plan. The standard of the physical space and the AV infrastructure is highly variable across the institution.

Recommendation 3: Review our existing educational quality assurance and programme review processes in light of CREP, and provide a framework to support regular evidence-based review activity

A regular cycle of quality review and enhancement of programmes must be established. A programme quality framework should be developed, informed by the CREP.

Recommendation 4: Develop an institutional strategy and define priority objectives in respect of technology enhanced and technology supported teaching and learning

Clear institutional direction should be provided to provide the motivation and direction required to leverage technology to enhance and support teaching and learning.

Recommendation 5: Agree an institutional definition and expectation in respect of transferable skills

It is evident that there is a lack of common understanding of what is meant by the term “transferable skills”. It would serve well to have an expressed institutional definition and expectation, taking into consideration the national and international perspective.

Recommendation 6: Develop institutional frameworks that guides programme teams towards the formulation of a programme-level assessment and feedback strategy

Programme areas have expressed an interest in adopting an integrated approach to assessment, while no specific proposals have emerged at this time. Institutional frameworks would provide a coherent structure and basis to stimulate and support action consequently reducing summative assessment.

Recommendation 7: Leverage the Performance and Development system (P4G), which is currently being designed by HR, as a means of clarifying and providing for development needs and preferences

Clarity should be sought in respect of the specific training and development needs and preferences of faculty (i.e. timing/format/level/topics). The personal and professional development of staff is aligned with the institutional strategy through the Performance and Development System (P4G) being designed by Human Resources.

Recommendation 8: Support the engagement, particularly of early career faculty, with certified training in University Teaching and Learning

The value of certified training in University Teaching and Learning has been clearly articulated in Project Champion reports. Faculty should be supported, by way of opportunity (time) and encouragement, to engage with certified training.

Recommendation 9: Review and hone existing professional development provision, particularly in the areas of assessment design and use of the VLE

In support of the action plans, a review of professional development provision specifically aligned to the enhancement themes on assessment and feedback, and the use of technology to enhance learning, should be undertaken.

Recommendation 10: Review and revise the Module Descriptor Tool to enhance the capture of more accurate and specific information on assessment

The module descriptor tool should be reviewed and redesigned to enhance the capture of more detailed information on assessment (timing, weighting and methods).

Recommendation 11: Incorporate the InfoHub tool developed to support the CRE process into the Curriculum Management System

The tool developed to capture programme information and facilitate mapping should be reviewed, developed and incorporated into the Curriculum Management System.

Recommendation 12: Facilitate implementation of actions and retain a programme-level focus through consideration of policy, procedural and operational amendments

Particular consideration should be given to facilitating the emergence of varied module credit size and enabling integrated assessment. The CRE process has established a programme-level focus which should be supported and maintained in through appropriate revisions to policy, procedures and operational structures.

Recommendation 13: Publish Programme Vision and Values statements and Programme Outcomes

The valuable programme information now captured should be fully exploited, and made available in a useful way to students, faculty, employers, prospective students and other appropriate stakeholders.

Recommendation 14: Highlight existing and developing/emerging good practice examples across the four CRE enhancement themes

The institution should identify and highlight current good practice under the 4 enhancement themes. In addition the emergence of good practice through the implementation of the CRE action plans should be publicised. In support of this aim the institution should consider supporting pilot projects from amongst the proposed actions.

Recommendation 15: Board-level implementation oversight plans, deliverables, milestones and key indicators of success should be formally submitted to UPB for approval and monitoring of progress

Boards are responsible for the implementation of the CRE action and enhancement plans, reporting to the UPB as requested. Board chairs should ensure that clear implementation oversight plans are submitted to UPB, noting timeline, deliverables, milestones and responsibilities

Recommendation 16: Undertake a critical review of CRE Process

It is recommended that an analysis and critique of the Curriculum Review and Enhancement Process be undertaken in the near future, in order to identify the strengths and weaknesses of the process and inform the structuring of future institutional level projects and initiatives.

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Appendix 1: Curriculum Review and Enhancement Steering Committee Membership

Professor Danielle Clarke, Head of School, UCD School of English, Drama & Film (to August 2016)

Dr Sinéad Critchley, Director of University Governance

Ms Danielle Curtis, Students' Union Education Officer (October 2015 to July 2016)

Associate Professor Barbara Dooley, Deputy Registrar and Dean of Graduate Studies

Professor Peter Duffy, UCD School of Physics

Dr David Foster, Director of Career Development & Skills, UCD Career Development Centre

Ms Aine Galvin, Director of the Centre for Teaching & Learning

Associate Professor Amanda Gibney (Chair), VPTL, College of Engineering & Architecture

Mr Kevin Griffin, Director of Registry

Ms Lexi Kilmartin, Students' Union Education Officer (from August 2016)

Professor Martin McNamara, UCD School of Nursing, Midwifery & Health Systems

Professor Frank Monahan, UCD School of Agriculture & Food Science

Professor Bairbre Redmond, Deputy Registrar and Dean of UG Studies (to October 2016)

Appendix 2: Curriculum Review and Enhancement Process Project Champions

Agriculture and Food Science: *Dr Eileen Gibney*

Architecture, Landscape Architecture, Planning & Environmental Policy: *Dr Samantha Martin-McAuliffe & Dr Paula Russell*

Bachelor of Arts: *Dr Fionnuala Dillane*

Business Undergraduate, Graduate Taught & Exec. Ed.: *Dr Linda Dowling-Hetherington*

Engineering: *Associate Professor Aoife Ahern*

Law: *Mr John O'Dowd*

Medicine: *Associate Professor Stuart Bund*

Nursing, Midwifery and Health Systems: *Dr Mary Hughes (to June 2016), Dr Timothy Frawley, Mrs Caroline Keegan (from January 2016 to September 2016), Dr Loretta Crawley (from August 2016), Dr Carmel Davies (from August 2016)*

Public Health, Physiotherapy & Sports Science: *Associate Professor Eamonn Delahunt*

Science: *Associate Professor Carmel Hensey*

Social Science: *Dr Stephan Köppe*

Veterinary Medicine and Veterinary Nursing: *Dr Sue Rackard & Ms Diane Cashman*

Arts and Humanities Graduate: *Dr Niamh Pattwell*

Social Sciences Graduate: *Associate Professor Dieter Kogler*

Science Graduate: *Associate Professor Tara McMorrow*

Appendix 3: Curriculum Review and Enhancement Process Timeline

Curriculum Review and Enhancement Timeline 2015/16/17	2015				2016												2017	
	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb
1 Launch Vision, Review & Enhancement Process																		
Registrar formally launches vision and process		■																
Deans/Assoc. Deans, Graduate School Directors launch review and nominate Project Champions		■																
Vision, Values & Outcomes Workshops with Project Champions			■															
Programme Champions develop and refine process plans		■	■															
2 Development of Vision, Values & Outcomes																		
Project Champions host workshops with Programme Review Team Leads			■															
Programme Review Teams develop vision, values and outcomes				■	■	■												
Stakeholder consultation and subsequent refinement of outcomes					■	■	■											
3 Curriculum Mapping & Action & Implementation Plan Development																		
Mapping and Action & Implementation Plan Workshops with Project Champions							■											
Project Champions host workshops with Programme Review Team Leads							■											
Programme Review Teams (using resources and defined methodology)																		
> Map and align programme outcomes (identifying gaps, strengths, overlaps, ratification, opportunities)																		
> Develop programme recommendations, actions and implementation plans																		
> Prepare Interim Programme Review Report and submit to Project Champion																		
4 Programme Review Action Plan & Implementation Report																		
Programme Review Teams (using resources and defined methodology)																		
> Prepare and submit final Programme Evaluation, Development and Enhancement Plan Report defining actions and implementation plan for recommendations and actions																		
5 Action Plan Implementation																		
Programme Review Teams implement action plan																		
Programme Specifications for 2017/18 approved by Boards and submitted to UPB																		

Appendix 4: Project Champion Deliverables

Programme Board	Project Champion	Process Plan	November Report	December Report	January Report	Vision, Values & Outcomes*	February Report	March Report	April Report	May/June Report	Interim Review Report	September Report	October Report	Final Report
Agriculture and Food Science PB	Eileen Gibney	Y	Y	Y	Y	Y	Y	Y	Y	Y	Received Oct 2016 (19 of 21)	Y	Y	Working draft submitted 19/12/16.
Architecture, Planning and Environmental Policy PB	Samantha Martin-Mcauliffe & Paula Russell	Y	Y	Y	Y	Y	Y	Y	Y	Y	Final end Sept 2016 (11 of 12)	Y	Y	Report submitted 1/12/16. Signed-off at Prog Board meeting on 22/2/2017. Updated report following board submitted on 8th March
BAPB	Fionnuala Dillane	Y	Y	Y	Y	Y	Y	Y	Y	Y	Partial (12 of 17)	Y	Y	Draft submitted on 11/1/2017. V1.2 signed-off by Chair of Board submitted 16/1/2017.
Business PB	Linda Dowling-Hetherington	Y	Y	Y	Y	Y	Y	Y	Y	Y	Partial, received 29/8/2016, two additional ones incorporated for 28/9/2016 synthesis update	Y	Y	Submitted 14/12/16. Signed-off by Chairs of both Prog Boards
Engineering Taught PB	Aoife Ahern	Y	Y	Y	Y	Y	Y	Y	Y	Y	Partial (6 of 35). Updated 8/9/2016 (13 of 35)	Y	Y	Draft submitted 5/1/2017
Law PB	John O'Dowd	1st version recd. 30/9/2016	N	N	N	N	N	N	N	N	No	No but 1st draft of plan submitted 30/9/2016, v1.2 submitted 10/10/2016	N	N
Medicine PB	Stuart Bund (Zoe Thompson)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Final 21/9/2016 (57 of 60)	Y	Y	Submitted 15/12/16. Signed-off by Dean
Nursing, Midwifery and Health Systems PB	Mary Hughes, Timothy Frawley, Caroline Keegan Loretta Crawley & Carmel Davies	Y	Y	Y	Y	Y	Y	Y	Y	Y	Partial (46 of 58)	Y	Y	Submitted 19/12/16. Signed-off by Dean. Version 2 submitted 12th January.
Public Health, Physiotherapy and Sports Science PB	Eamonn Delahun	Y	Y	N	Y (joint Dec 2015/Jan 2016 Report)	Y	Y	Y	Y	Y	Submitted 29/8/2016	e-mail update	e-mail 28/10/2016, still awaiting some final plans	Report in template format submitted 9th January
Science PB	Carmel Hensey	Partial 16/10/2015 updated November 2015	Y	Y	Y	Y	Y	Y	Y	Y	Partial (Outstanding Chemistry, Computer Science and Statistics)	Y	Y	Report minus Appendix 2 submitted 9th January. Appendix 2 submitted 13th January
Social Sciences PB	Stephan Köppe	Y	Y	Y	Y	Y	Y	Y	Y	Y	Submitted 14/1/2017	Y	N	Submitted 2nd February following board sign-off on 1/2/2017
Veterinary Medicine PB	Sue Rackard & Diane Cashman	Y	Y	Y	Y	Y	Y	Y	Y	Y	Yes (minus MVB)	Y	Y	Draft submitted 22/12/16. Final report submitted 15/2/2017 following Programme Board sign-off on 31/1/17.
Arts & Humanities GSB	Niamh Pattwell	Y	Y	Y	Y	Y	Y	Y	Y	Y	Summary update submitted 25/8/2016 (3 further reports due)	Y	Y	Report (to be signed off by board) submitted 12/1/2017. Final report submitted 24/2/2017.
Social Sciences & Law GSB	Dieter Kogler	Y	Y	Y	Y	Y	Y	Y	Y	Y	July Report	Y	Interim Report Synthesis	Report submitted 10/1/2017
Science GSB	Tara McMorrow	Y	Y	Y	Y	Y	Y	Y	Y	Y	Partial, updated 30/8/2016 (38 of 68)	Y	Y	Report and Appendix 1 signed off by GSB Chair submitted 12/1/2017

*Not all fully complete. Some programmes/majors missing from InfoHub.

Appendix 5: Programme Area Engagement, Implementation Timelines & Oversight Plans

Programme Area	Appendix 1 (programme engagement)	Appendix 2 (Timeline, Milestones & Deliverables)	Section 4 (Prog Board Implementation Oversight Plan)
Agriculture and Food Science PB	No but tables for programmes noting proposed changes provided	No but the tables for programmes provides some milestones and School Action Plan section tabulates School-level issues to be addressed (under heading of; assessment, transferrable skills, and feedback) noting responsible body/bodies	School-level issues tables serve this purpose
Architecture, Planning and Environmental Policy PB	Yes, programme list indicating tasks completed	Yes. Table detailed by programme area. Responsibility only noted for one programme.	Yes, identifies 3 high-priority areas that Board will focus on. Start date given, no responsibility noted for 3 priorities.
BA PB	Only notes submission of Interim Reports	Yes	Section included, however Prog Board only overseeing major structural changes. Other aspects under the remit of the School Heads of T&L (reporting to School Plenary or Exec) and College T&L Committee.
Business PB	Yes	Yes, short list of actions and dates.	Yes, notes Programme Director Updates in March and requirement for update through annual programme report process.
Engineering Taught PB	Not as requested. List of some programmes with proposed actions and some dates provided.	Yes. Table of 6 deliverables with timeframe, however no ownership noted.	No
Law PB	No report	No report	No report
Medicine PB	Yes	Appendix 2 provided. List of 3 reporting points given but no details on particular initiatives/actions provided.	Section provided noting that PC will communicate with Prog Directors about 3 reporting points.
Nursing, Midwifery and Health Systems PB	List of programme that completed process provided	Yes, actions for programme areas do not note ownership.	Section provided noting that PCs will work with PB, Prog Directors and Module Co-ordinators to support implementation of action plans.

Public Health, Physiotherapy and Sports Science PB	Yes	Appendix 2 provided. Lists activities happening in 3 programmes (accreditation visit noted, programme restructuring noted, decision on 3 to 4 year)	Section provided noting activities in 3 programme areas (as per Appendix 2).
Science PB	Yes	Yes	Yes. Associate Dean and VPTL will review progress at end of each semester. Board will have an annual meeting to share curriculum enhancement experiences.
Social Sciences PB	No. One programme only, however subject level engagement summary overview not provided	Yes - Appendix 1, no responsibilities noted	Section provided. Notes Board will oversee planning, design and implementation of revised programme. Work will be led by Prog Coordinator/Deputy Assoc Dean (new role). Refers to key milestones being provided in appendix.
Veterinary Medicine PB	Yes	Yes	Yes
Arts & Humanities GSB	Yes	Yes (In Appendix 1 spreadsheet)	No, it is noted that the board will review the proposed actions on a regular basis.
Social Sciences & Law GSB	List of programmes, no noting of deliverables	Noted as N/A (not immediately obvious that PC understands the responsibility of the CSSL GSB in respect of oversight of implementation of action plans)	Section provided. Notes that not possible to develop a single oversight plan and timeline. Suggests that GSD takes plans and monitors implementation.
Science GSB	Yes	Yes	List of programmes with particular actions and dates provided. Noted that GSB will have oversight of changes requiring regulatory approval (currently none planned). Also noted that GSB reviews programme changes monthly. Not presented as 'oversight' of implementation of action plans.