

Validation Report



BN417[†]

Bachelor of Science (Honours) in Entrepreneurship in Engineering

(60 ECTS credits leading to NFQ Level 8 Award)

BN419

Bachelor of Science (Honours) in Entrepreneurship in Horticulture

(60 ECTS credits leading to NFQ Level 8 Award)

BN421

Bachelor of Science (Honours) in Entrepreneurship in Information Technology

(60 ECTS credits leading to NFQ Level 8 Award)

[†] The original proposal was for one programme namely, BN417 Bachelor of Science (Honours) in Entrepreneurship, with three different discipline specific streams. However the panel was of the opinion that the programme title should reflect the discipline and thus separated the programme into three separate offerings each discipline specific with common entrepreneurial modules.

Introduction

The mission of the Institute is to serve its students and the community by meeting the skills needs in the economy and increasing the level of participation in third-level education and training, particularly in Dublin North-West and its environs.

The Institute in 2006 was awarded delegated authority enabling the development, validation, implementation and continuous improvement of its existing taught higher education and training programmes up to and including level 9 of the National Framework of Qualifications.

The purpose of this document is to report on the findings of the peer review panel established to validate this proposed programme against the criteria for the validation of programmes as stipulated in the Institute policy document 2MP01¹.

This submission by the School of Informatics and Engineering supported by the Learning and Innovation Centre (LINC) and the School of Business and Humanities evolved through:

- examining the competence, expertise and experience of it's staff in addition to the strategy of the department/school/Institute and government educational policy
- identifying through research the need to develop a stronger entrepreneurial culture among the graduate population

¹ 2MP01 Design, validation and accreditation of new academic programmes

Programme overview

The proposed programme is for a one year add on Bachelor of Science (Honours) award in the field of entrepreneurship at the School of Informatics and Engineering, supported by the Learning and Innovation Centre (LINC) and the School of Business and Humanities.

The aim of this programme is to produce horticulture, engineering and information technology graduates who are competent in their core technical skills, who can apply these skills in product development challenges and who have a mindset capable of recognising and pursuing business opportunities in an entrepreneurial manner. It represents a departure from traditional offerings in that it seeks to build students cross disciplinary awareness of creativity, innovation, teamwork and entrepreneurship whilst providing a framework for recognising and assessing business opportunities.

The programme is centred on two core modules on new venture development. These along with the final-year project provide a central focus to the programme and are, therefore, closely integrated. Information, skills and techniques learned in the other supporting modules will be combined in as realistic a business environment as possible to enable the students to develop their abilities to bring a concept through the different stages of research, design and development to a fully developed business case. The new venture development modules and the project will be supported by the following core business and entrepreneurship modules:

- Creativity & Innovation
- Enterprise and Operations
- Marketing and Sales for Enterprise Development
- New Venture Finance
- Legal and Regulatory Framework for Business and Commercialisation

This integrative approach will embed entrepreneurship within the programme and build the skills and mindset to prepare students for both entrepreneurial and intrapreneurial careers.

The programme has been developed under the SIF¹ II sponsored Accelerating Campus Entrepreneurship (ACE) initiative which is a cross-institutional project aimed at promoting campus entrepreneurship. The core mandatory modules of the proposed programme have recently been validated as part of a new

¹ Strategic Innovation Fund

programme in Dundalk Institute of Technology titled: Bachelor of Science (Honours) in Engineering Entrepreneurship. The proposed programme wishes to build on this initiative to provide progression opportunities to level 7 graduates of other disciplines outside of engineering and proposes to do same through the use of elective streams of pre-validated ITB modules in information technology¹ and horticulture. In addition to the core mandatory entrepreneurial and project modules students will register on one discipline specific elective module in each semester. Students must also register on one discipline specific mandatory module in the second semester which can be selected from the following pre-validated modules:

<u>Discipline</u>	<u>Module code</u>	<u>Module title</u>
Engineering	MECH H5011	Engineering Design
IT	COMP H6028	Strategic Planning for Enterprise IT
Horticulture ^{II}	HTSC H4016	Arboriculture 2

To date the natural progression route for graduates of NFQ level 7 informatics, engineering and horticulture programmes has been limited to that of a level 8 honours degree within each discipline, where a more in-depth coverage of theory is balanced by a strong design component and significant additional project work. However, the research carried out under the auspices of the ACE project indicates that an alternative progression route for such graduates is to imbue them with business and entrepreneurial theory, skill, practice and mindset, whilst at the same time further developing the students' understanding of their original specialisation. To this end the proposed NFQ level 8 add on award offers a new, and exciting, progression route for graduates of NFQ level 7 informatics, engineering and horticulture programmes.

¹ Non pre-validated module: The following module was proposed and validated at the panel meeting - BSCE H4011 Project Feasibility and Justification in IT – NFQ Level 8 5 ECTS credits.

^{II} Discipline specific mandatory module update – this was originally Horticultural Business Management Operations HTSC H4013 in the original submission document and changed at the request of the design team. This change was supported by the validation panel.

Programme detail

Programme title	Bachelor of Science (Honours) in Entrepreneurship
Award title	Bachelor of Science (Honours)
Award type	Major – Add on
NFQ^I level	8
ECTS^{II} credits	60
Programme code	BN417
Banner code	BN_EBSCE_B

Panel members

Chairperson	Mr. Tony Quinlan Galway-Mayo Institute of Technology (Registrar retired)
Panel member 1	Ms. Therese Moylan Dun Laoghaire Institute of Art, Design and Technology
Panel member 2	Mr. Ivan McPhillips Galway-Mayo Institute of Technology
Panel member 3	Mr. Niall Connolly Consultant
In attendance	Dr. Diarmuid O'Callaghan IT Blanchardstown Mr. Michael Keane IT Blanchardstown
Date of Panel Meeting	Wednesday 16 th June 2010

^I National Framework of Qualifications

^{II} European Credit Transfer and Accumulation System

Institute staff present

Head of School

Mr. Larry McNutt Head of School of Informatics and Engineering

Head of Departments

Mr. Richard Gallery Head of Department of Engineering

Dr. Brian Nolan Head of Department of Informatics

Mr. Pat O'Connor Head of Department of Business

Programme leaders

Mr. Cormac MacMahon

Ms. Assumpta Harvey

Mr. Tom Nolan

Guest attendees

Dr. Cecillia Hegarty Dundalk Institute of Technology

Mr. Seán Mac Entee Dundalk Institute of Technology

Panel findings

In evaluating the appropriateness, quality and proposed operation of this programme the following criteria has been considered and is hereby reported upon:

Strategic planning

The panel was satisfied that the programme is in keeping with the Institute's mission, that it does not constitute redundant provision and that it makes efficient use of resources.

Evidence of consultation

Through discussion with Institute staff, the panel found that a comprehensive research effort was undertaken to validate the need for, and the preferred structure and characteristics of the proposed programme. This included a comprehensive undergraduate and post-graduate student survey across ACE partner institutions, an enterprise survey and a national/international study of best practice in entrepreneurship education. The panel commended the design team on the depth of this consultation.

Rationale

Currently there is limited availability of undergraduate entrepreneurship programmes to students from science, technology and engineering disciplines across the third level sector in Ireland. The benefits of entrepreneurship education are not limited to the creation of new business ventures (subsequently new job creation) and include the development of key entrepreneurial competencies of students and their mindsets. By developing an entrepreneurial capacity among science, technology and engineering graduates, Ireland's economic and social well-being will be enhanced at a time when it is needed the most.

Learner employment potential

On completion, students may have the opportunity to progress to the Master of Science in Technology Entrepreneurship BN523 where they will gain far greater exposure to risk and the commercial realities of venturing. However, it is expected that many of the students will migrate to entrepreneurial careers, either as key members of technology start-up teams, of social enterprises or of 'intrapreneurial' organisations renowned for innovation capability.

Protection of learners

Section 43 of the Act¹ does not apply.

Quality assurance

The panel was informed of how the submission had been developed and approved internally whilst complying with the Institute's quality assurance policies and procedures. The panel concurred that said policies and procedures had been applied to the development of the proposed programme.

Programme titles and award titles

Following discussion, the panel was satisfied that the title of the proposed programme is clear, accurate and fit for the purpose of informing prospective learners and other stakeholders and consistent with HETAC^{II} award titles. However the panel was of the opinion that the programme title should reflect the discipline specific nature of the programme. See panel conditions and recommendations.

Ethics

The panel was satisfied that the Institute has internal policies and procedures in place to ensure that all teaching, learning or research activity across the spectrum of NFQ levels is conducted / delivered in a manner that is both morally and professionally ethical.

Unity

The panel found that the programme design is consistent with HETAC's policy on Accumulation of Credits and Certification of Subjects, that it has an underlying unifying theme with modules bonded by linkages being either implicit or explicit. It was also clear to the panel how the standards of knowledge, skill and competence evolve throughout the programme as a whole.

¹ Qualifications (Education and Training) Act, 1999

^{II} Higher Education and Training Awards Council

Teaching and learning

The panel discussed with staff of the Institute the various modes of interaction practised with learners. Evidence of a clear dialogue was confirmed, enabling learners to develop and have available to them the support of academic staff. Course management arrangements were discussed and deemed adequate.

Entry requirements

Admission to this programme will be considered from graduates of a relevant (engineering, information technology or horticulture) Ordinary Degree (NFQ level 7) programme at pass level with a GPA of 2.0 or above. See conditions and recommendations.

Learner assessment

Through discussion with the design team, and from the submission document itself it was explained in detail to the panel the multiple modes of assessment, both formal and informal that will be employed. The scale of learner assessment however was deemed by the panel to be over excessive and recommended that a programme assessment strategy be developed whilst using integrated cross modular assessments to reduce the volume of assessment. See panel recommendations.

Standards of knowledge, skill and competence

The panel felt having reviewed the syllabi and assessment methods that learners would be capable of attaining the standards of knowledge, skill or competence relevant for this award.

Access, transfer and progression

The programme incorporates the established procedures for access, transfer and progression while accommodating a variety of access and entry requirements from applicants with expertise in related disciplines. However the panel recommended that the entry requirements be reviewed to more clearly articulate same for each of the discipline specific cohorts of applicants. See conditions of validation.

Decision of the panel

The panel recognised the design team's wish to reflect within the programme title the strong sense of identity represented by each discipline, as proposed, and following discussion recommended that the programme be split into three separate Bachelor of Science (Honours) offerings each with a core suite of mandatory entrepreneurial modules. The panel recommends the validation of the following programmes:

Bachelor of Science (Honours) in Entrepreneurship in Engineering

Award title	Bachelor of Science (Honours)
Award format	Add on
NFQ level	8
ECTS credits	60
Programme code	BN417
Banner code	BN_EBSEE_B

Bachelor of Science (Honours) in Entrepreneurship in Information Technology

Award title	Bachelor of Science (Honours)
Award format	Add on
NFQ level	8
ECTS credits	60
Programme code	BN421
Banner code	BN_EBSEI_B

Bachelor of Science (Honours) in Entrepreneurship in Horticulture

Award title	Bachelor of Science (Honours)
Award format	Add on
NFQ level	8
ECTS credits	60
Programme code	BN419
Banner code	BN_EBSEH_B

Panel conditions

This validation is subject to the following conditions:

1. The panel was of the opinion that the field of entrepreneurship and the learning involved in developing an entrepreneurial mindset is still evolving. Hence, the programme titles, as proposed, are to be reviewed for fitness of purpose, following the completion of one cycle and that students, the academic community and industry be consulted as part of this review process.
2. The entry requirements for each of the discipline specific cohorts of applicants must be clearly articulated. The selection criteria for entry to the programme must be transparent and be made available to all applicants.

Panel recommendations

The following specific recommendations were made by the panel:

1. Review the number and terminology of the programme learning outcomes and integrate throughout the module learning outcomes to facilitate the creation of an overall programme assessment strategy.
2. Clearly articulate repeat assessment mechanisms for all modules and include in each of the course handbooks.
3. Consider the use of cross modular assessments to reduce the overall volume of assessment.
4. Stipulate staff supervised contact hours and self directed learning hours for each module and update the course schedule to reflect same.
5. Review reading lists to clearly differentiate between essential and recommended reading.
6. Make other technical and minor amendments as discussed at the panel meeting.

Panel observations

The panel commended and congratulated the design team on the interdepartmental synergy and cross institute cooperation in this initiative to provide a new and exciting progression route for graduates of NFQ level 7 informatics, engineering and horticulture programmes.

Panel signatures

Chairperson

Mr. William (Tony) Quinlan _____ Date _____

Secretary

Dr. Diarmuid O'Callaghan _____ Date _____