



Report of Validation Panel

Date of Meeting: 31 March 2011

Named Award: Bachelor of Engineering (Honours)
Programme Title: Bachelor of Engineering (Honours) in Marine & Plant Engineering
Award Type: Honours Degree
Award Class: Major
NFQ Level: 8
Proposed First Intake: September 2011
ECTS Credits: 60

PANEL MEMBERS

| Name |
|---|
| Dr Thomas Dooley, Department of Civil & Environmental Engineering, Dundalk Institute of Technology (CHAIR). |
| Dr Michael Hartnett, Department of Civil Engineering, NUI Galway |
| Mr Gerard O'Donnell, Department of Mechanical & Industrial Engineering, GMIT |
| Mr Ean Wallace, Marine Surveyors Office, Department of Transport |
| Mr Ed Riordan, Deputy Registrar & Head of Academic Quality, CIT |

PROPOSING TEAM MEMBERS - NMCI

| Name |
|--|
| Captain John Clarence, Head of College |
| Dr Noel Barry |
| Mr Dermot O'Reilly |
| Mr Albert McGrath |
| Mr Michael O'Donovan |
| Mr Gerard Horan |
| Mr Jody Power |

BACKGROUND TO THE PROPOSED PROGRAMME

The proposed programme has been developed to align with the Institute's strategic goal of providing Level 8 progression routes for all level 6/7 programmes. This proposal is for a one-year, add-on Level 8 honours degree, to follow the existing Bachelor of Engineering in Marine & Plant Engineering. Certain amendments to the level 7 degree were also proposed. Currently, progression from the B Eng level 7 is via the professional certification route, i.e. graduates combine their level 7 awards with sea time and further Department of Transport examinations to obtain Certificates of Competency. The NMCI states and the Panel agrees that an honours degree would assist lifelong career and continuing educational prospects.

FINDINGS OF THE PANEL

1. The panel commends the NMCI proposing team for taking the initiative in pursuing the development of the honours degree. The panel notes that such a degree would complement the professional certification of the Department of Transport. The Panel also commends the long-standing and effective co-operation between the DoT and NMCI, which underpins the operation of the College. The Panel was appreciative of the proposers' clear and lively engagement in the discussions regarding the proposal.
2. The panel supports the development of a Level 8 programme in Marine & Plant Engineering, which would have benefits for the graduates and for the country .
3. Following its review of the documentation provided and a lengthy discussion with the proposing team, the panel finds that as presented, the programme does not currently meet all the necessary standards for a Level 8 Honours Bachelor Degree in Engineering as outlined in the HETAC Level 8 Engineering Standards.
4. The programme as presented is highly practice-based, and this in itself is by no means a weakness. However, there is insufficient evidence in the modules and programme structure of the following areas: Mathematics, Design, Information & Communications Technology, and the ability to operate in unfamiliar settings.
5. The panel recommends that the proposal be thoroughly revised to address the following issues.
 - 5a. The language used in the respective Level 7 and Level 8 programme outcomes should be distinctly different and should indicate a clear step-up in the level of learning from Level 7 to 8. This is not evident from the programme document.
 - 5b. The level 7 programme of study incorporates (for almost all students) a very substantial element of sea time, which only attracts 5 ECTS credits. This should be reconsidered; learning during sea time may not currently be given due weight in terms of credits and also in contributing to the outcomes required for a level 8 degree. The sea-time learning should be referenced in the programme outcomes

5c. The level of mathematics of the proposed programme needs to be augmented. This should be addressed by infusing mathematical skills into relevant modules. A higher mathematics elective might also be offered in the level 7 award stage.

5d. A possible approach to be considered by the NMCI would be as follows: Consider bundling thirty credits (built on the DoT Certificates of Competency content) into a special purpose award in the short term; while raising the academic/engineering standard of the remaining thirty credits with a specific focus on the HETAC engineering outcomes.

5e. The panel strongly recommends that the proposed programme should be benchmarked against similar Level 8 offerings nationally and internationally. The NMCI must also ensure that graduates from their level 8 programme would be able to progress to Masters level with confidence.

6. The proposers stated to the Panel that Engineers Ireland accreditation would not be sought for this programme. However, professional accreditation from EI or IMarEST should be kept in mind when revising the proposal. The present Level 7 degree is recognised for registration on the I.Eng. register through the Dublin Accord via the IMAREST Course Accreditation policy. It is important that the new programme demonstrate a further step on the route to Chartered Engineer for potential graduates.

Recommendation to Academic Council

That the proposal be referred back for further development as outlined in paragraphs 3 to 6 above.