



TUS

**Technological University of the Shannon:
Midlands Midwest**
Ollscoil Teicneolaíochta na Sionainne:
Lár Tíre Iarthar Láir

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Engineering and Informatics

Civil Engineering and Trades

Report of Differential Validation Panel

for the

Master of Engineering in Engineering Management (Full-time & Part-time) (90 ECTS)

with embedded

Postgraduate Diploma in Engineering in Engineering Management (Full-time & Part-time) (60 ECTS)

and the

Master of Engineering in Energy Infrastructure (Part-time) (90 ECTS)

with embedded

Postgraduate Diploma in Engineering in Energy Infrastructure (Part-time) (60 ECTS)

2nd May 2024

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1.0 INTRODUCTION

This report outlines, in summary form, the proceedings of the differential validation visit for the listed programmes in the Department of Civil Engineering and Trades and the findings and conclusions of the Panel held on 2nd May 2024. The validation was undertaken in accordance with TUS Academic Regulations. A differential validation panel makes an independent impartial judgement on a programme proposal.

2.0 GENERAL INFORMATION

2.1 Higher Education Provider

Institute: Technological University of the Sahnnon (TUS)
Faculty: Engineering and Informatics
Department: Civil Engineering and Trades
Date of Visit: 2nd May 2024

2.2 Programmes Evaluated

Programme	Master of Engineering in Engineering Management
Award Title	Master of Engineering
NFQ Level	Level 9
ECTS Credits	90
Format	Masters Degree
Delivery Mode	Full-time/Part
Proposed Start Date	September 2024
Duration	1.0 Year

Programme	Postgraduate Diploma in Engineering in Engineering Management
Award Title	Postgraduate Diploma
NFQ Level	Level 9
ECTS Credits	60
Format	Postgraduate Diploma
Delivery Mode	Full-time/Part-time
Proposed Start Date	September 2024
Duration	1.0 Year

Programme	Master of Engineering in Energy Infrastructure
Award Title	Master of Engineering
NFQ Level	Level 9
ECTS Credits	90
Format	Masters Degree
Delivery Mode	Full-time/Part
Proposed Start Date	September 2024
Duration	1.0 Year

Programme	Postgraduate Diploma in Engineering in Engineering Infrastructure
Award Title	Postgraduate Diploma
NFQ Level	Level 9
ECTS Credits	60
Format	Postgraduate Diploma
Delivery Mode	Full-time/Part-time
Proposed Start Date	September 2024
Duration	1.0 Year

2.3 Differential Validation Panel of Expert Assessors

<u>Name</u>	<u>Affiliation</u>
Emeritus Prof. Dan Hannevig	Marie Parker Jenkins, University of Limerick
Prof. Colum Foley	VE Energy
Ronan Niland	Dublin City University
	Student Representative & National Programme Implementation Networks

2.4 Institute Staff

Dean of Faculty of Engineering & Informatics	Dr. Sean Lyons
Head of Department of Civil Engineering & Trades	Mr. Alan Duffy

Programme Team

Dr. Cyril Morris
Christoffer Hannevig
Dr. Mark Cashin
Fiona Walshe

2.5 Documentation

1. Proposed Programme Documents.
2. Summary of Rationale for the Proposal.
3. Summary of Comparative Programme Changes.
4. Report of Original Programme Validation Panel.
5. TUS Policy and Procedures for Differential Validation Policy if a Major Award.

3.0 FINDINGS AND RECOMMENDATIONS OF EXTERNAL VALIDATION PANEL

3.1 Main Findings

The Panel of Assessors recommends approval of the proposed:

- Master of Engineering in Engineering Management (Full-time & Part-time) (90 ECTS)
- Postgraduate Diploma in Engineering in Engineering Management (Full-time & Part-time) (60 ECTS)

- Master of Engineering in Energy Infrastructure (Part-time) (90 ECTS)
- Postgraduate Diploma in Engineering in Energy Infrastructure (Part-time) (60 ECTS)

3.2 Conditions

No conditions apply.

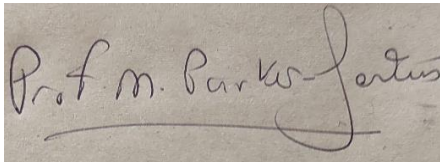
3.3 Recommendations

- 1) Continue to support staff with appropriate CPD to support student independent learning and its assessment.
- 2) Consider how an early in-person meeting/workshop could be facilitated for online student cohorts to promote student engagement and programme identity.
- 3) Conduct a review of the impact of the programme changes on student engagement and success rates, as part of ongoing monitoring.

3.4 Commendations and Observations

- 1) The panel thank the programme team for the comprehensive documentation including the rationale for the programme changes, comparative mapping and revised programme documents.
- 2) The panel commend the adjustment and reallocation of class contact to independent learning in a manner that is constructive.
- 3) The panel commend the team for utilising the opportunity to refresh the overall programme offering, including the revised streams and module assessment strategies.
- 4) The panel appreciated the detailed and constructive discussions and the helpful clarifications provided by Management and the Programme Team.

- 5) The panel commend that the programme team viewed international students as a positive that helps enhance the programme, offering global perspectives.

A handwritten signature in black ink on a light brown background. The signature reads "Prof. M. Parkes-Jentles" in a cursive script. There is a horizontal line drawn under the signature.

Signature of Chairperson

Date: 20/08/2024

4.0 APPENDIX

9.30am PRIVATE MEETING OF ASSESSORS

The Chairperson, Prof. Marie Parker Jenkins welcomed all members and outlined the purpose and context of the meeting and noted that the panel acts on behalf of the Academic Council to validate new programmes for the University. The Chairperson asked panel members to introduce themselves and to give their initial impressions with respect to the programme and the documentation.

The Chairperson noted that the programmes has been previously validated and through a programmatic review process. They are now being presented as part of the current differential validation process to align the programmes with the *TUS Framework for Taught Masters Programmes* approved by TUS Academic Council in December 2023. The presentation of the programmes through differential validation is to align them with this principle and to adjust the associated directed and independent learning hours. The Chair person asked the panel to outline their initial impressions of the proposal. The panel noted that the documentation is comprehensive and that the proposed changes to the programme have been thought through. The rationale would further emerge as the meeting progressed. A timetabling error had been referenced in the documentation and this could be further queried

10.30am MEETING WITH SENIOR MANAGEMENT

TUS Senior Management was represented by the Dean of Faculty of Engineering & Informatics and Dr. Sean Lyons, Head of Department of Civil Engineering & Trades, Mr. Alan Duffy. The panel and team introduced themselves. The Chairperson thanked TUS for the invitation to review the proposed programme.

Strategic Focus

The Management team outlined the context of the differential validation in accordance with the Academic Council approved Framework for Taught Masters programmes. In keeping with the pedagogical principle of independent learner development, the TUS Framework specifies that “the contact delivery of a taught Masters programme is not more than 14 hours”. The Dean of Faculty, Dr. Sean Lyons, outlined that the team felt that there was a capacity for a reduction of learning hours and this would assist in making the

programme sustainable, particularly for the typical profile of students. It was also noted that there were some changes to programme streams proposed.

A short presentation was provided by Head of Department, Mr Alan Duffy, outlining the context of the programme and the proposed changes in more specific detail. It was noted that the M. Eng. in Engineering Management is delivered for both Full-time and Part-time modes. The Part-time offering currently has 41 students registered and has linked DASBE funding support.- It is delivered online to a mainly mature cohort. The Full-time version commenced in 2023 delivered to international student with 12 students registered and hope to grow it significantly. The programme streams were outlined and it was noted that a new module in Renewable Energy & Sustainability replaces an existing module and this will provide for better delivery of the programme outcomes of this elective stream.

The M. Eng, in Energy infrastructure was overviewed and it was noted that it commenced in January 2022 and is Spring Board funded. It is springboard funded and delivered online to mature student cohort who typically have diverse backgrounds. There are currently 25 students registered. There are no proposed changes to learning outcomes, module content or assessment.

The programme team informed the panel that the teaching hours have been reduced to a maximum of 14 hours for 10 ECTS modules and to a max of 4 hrs and 5 ECTS modules, thereby aligning with the framework to a total of 14 hours per week.

The panel queried the error in the programme schedule and the panel confirmed that it did not result in a timetabling error in that the timetabled hours were correct. The panel commended the team in getting the programmes Springboard funded. In terms of the online hours, these are delivered as 2 by 2 hour blocks.

Relevant Staffing, Facilities and Resource Issues

The panel discussed staffing, facilities and resources with the programme team it was confirmed that there was adequate staffing in place and in hours expertise to cover the curriculum. It was also noted that the bulk of the programmes are delivered online, and all staffing, facilities and resources are in place for the Full-time cohort in Engineering Management are in situ.

10.30am MEETING WITH PROGRAMME TEAM.

The Chairperson welcomed the programme team to the meeting and both members of the panel and programme team briefly introduced themselves. The Chairperson thanked the team for the detailed documentation provided in advance which was of great assistance to the panel members. The Chairperson also acknowledged the succinct presentation made by the Head of Department which gave an excellent overview of the proposed changes.

Master of Engineering in Engineering Management (Full-time) Programme

This programme which has an international cohort of students commenced in September 2023 and has been piloted in the current academic year. Currently, there are 12 students on the programme with larger numbers expected to enroll going forward. The International Office provides ongoing supports to these students and additional tutorials and support will be provided going forward. They are a very active and engaged group and interaction between their peers and the lecturing staff is excellent. They provide an enriching and international perspective to the programme overall.

The importance of the Capstone module within the programme was highlighted and also the challenges in terms of securing internships for international students but the long-term goal is always at the forefront by the student. They see it as a stepping stone to securing future employment due to the important skills-set it provides them with. The benefits associated with AI were highlighted and it is considered to be a very valuable tool to the students when used in an appropriate and constructive manner.

Master of Engineering in Energy Infrastructure (Part-time) programme

This programme commenced in January 2021 and is funded by Springboard. It is delivered on-line to mature students. There are 25 registered students on the programme currently, with one intake annually. The importance of facilitating a number of face-to-face meetings with the students in a timely fashion was highlighted by the panel with advance notice given in order to maximise attendance. This would be of great benefit to all parties particularly at the commencement stage of the programme.

The engagement with the team centred around the proposed changes to the existing programmes. The hours allocated to directed learning activities per module were reviewed by the Programme Team to ensure that no excessive teaching hours were in place which would negatively impact on the student experience and conflict with the pedagogical principle of independent learner development. After this review, the hours have now been reduced across all modules to a maximum of 14 hours per Semester, with 10 ECTS credit modules having a maximum of 4 hours and 5 ECTS credit modules having a maximum of 3 hours. These changes took place in accordance with the Academic Council approved TUS Masters Framework. In light of the changes, the panel highlighted the importance of providing support to staff with appropriate CPD to support student independent learning and its assessment. The panel also noted conducting a review of the impact of the programme changes on student engagement and success rates, as part of ongoing monitoring would be important.

The programme team outlined to the panel that in addition to the reduction of hours, a number of other smaller changes were made to specific modules, which are summarised as follows:

- A correction to the number of hours on the module 'Resource Management' was made, in order to bring it in line with the current Timetabled hours, which is 4 hours.
- The module 'Intelligent Design and Modelling' was replaced with the module 'Renewable Energy and Sustainability'. This change was necessitated in order to allow for a more focused Energy and Environmental Stream, which will future proof the delivery of energy infrastructure. It is hoped to introduce it as an elective stream in order to strengthen the programme.
- A correction to the number of hours on the module 'Resource Economics' was made in order to bring it in line with the current Timetabled hours, which is 4 hours.
- A correction to the number of hours on the module 'Data Analytics' was made as the hours were duplicated. Again, this error had been made when the module was being set up. It will now read as 4 hours.

The Chairperson thanked the programme team for their attendance and level of engagement with the panel and wished them well going forward with the programmes in their new format.

11.30am PRIVATE MEETING OF ASSESSORS

The panel reviewed draft minutes and discussed the contributions of Management and the Programme team. The panel indicated that they would be happy to approve the programme, with a small number of recommendations which would enhance the programme when implemented. The detailed recommendations were generated, and these are presented in Section 3.3 of this report. The panel noted several commendations and these are outlined in Section 3.4 of this report.

The panel noted the importance of ensuring that repeat students are appropriately facilitated to complete their programme of study in line with TUS Policy, following the commencement of the revised programme.

12.15pm MEETING WITH SENIOR MANAGEMENT

In the concluding session, the Chairperson of the External Validation Panel, Prof. Marie Parker Jenkins, briefed Dean of Faculty of Engineering & Informatics and Dr. Sean Lyons, Head of Department of Civil Engineering & Trades, Mr. Alan Duffy, and the Programme Coordinator, Ms. Rachel Walsh, on the outcome of the day.

The Chairperson outlined the preliminary views of the validation panel and stated that the panel were happy to approve the proposed programme. The panel would make a small number of recommendations in the spirit of enhancing the programme. The Chairperson then provided an overview of the recommendation and commendations to the team.

Dr. Sean Lyons thanked the panel for their time and the recommendations are very useful and would be implemented. He noted that the programme only works because of a very dedicated and exceptional staff, including academic and support staff. Mr. Alan Duffy welcomed the findings and thanked the Chairperson and panel for their appraisal. Mr. Alan Duffy thanked the programme team for the comprehensive work involved in the redesign of the programmes.

The Chairperson, Prof. Marie Parker Jenkins, thanked the team and the panel for all their contributions.

12.30pm CONCLUSION

The external validation visit concluded.