Faculty of Engineering and Built Environment

School of
Electrical and Electronic Engineering

TU027 Bachelor of Engineering Technology (BEngTech)

Validation Conditions and Recommendations –
TU027 Team Responses

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BEngTech *Electrical Services Engineering Validation Conditions/Responses*
School of Electrical and Electronic Engineering, TU Dublin

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1. Introduction

The TU027 programme team greatly appreciates the validation panel's thorough evaluation and review of the proposed TU027 programme, and for the opportunity to further improve the programme by responding to the conditions and recommendations presented herein.

2. Validation Panel Conditions & School Responses

The Validation Panel's prescribed conditions and the School Responses are provided in the following table.

Conditions of Approval

1.	A schedule of assessments should be produced to ensure that the balance of assessments for all modules is considered to avoid periods of particularly heavy workload for students. This schedule should also indicate where feedback on assessments is provided to students.

Response to condition #1

An assessment schedule has been developed through which, and on the basis of the semester and associated week range, students will be able to appreciate their workload for the semester. The proposed schedule template (available in **Appendix A**) will facilitate an avoidance of assessment bottlenecks through a more balanced assessment strategy, while facilitating the students the appropriate opportunity to prioritise their assessment engagement across the semester. Further, this schedule will be made available through Brightspace, as the Virtual Learning Environment (VLE for the programme and individual modules.

2.	In the context of the programme duration changing from four to three years, there should be a review of the constructive alignment between module learning outcomes and assessment in order to: avoid over-assessment; ensure that learning outcomes are assessed by the most appropriate method and; ensure there is no unnecessary duplication of content between modules. This review should be undertaken in the first year of the programme, through the agreed process for making amendments to modules, and reported back to the panel before the end of the next academic year.

Response to condition #2

The programme team plans for the programme structural alignment to be considered concurrently with the SDG (sustainability) integration strategy (as explained in the response to condition #3). The (high-level) plan to achieve this structural alignment, cognisant of SDG integration and the University UEM, will involve,

- A review of the modules offered to identify the alignment to sustainability (through the Sustainability Tracking, Assessment & Rating System (STARS®) framework as developed by the Association for the Advancement of Sustainability in Higher Education (AASHE),with further details provided in the response to condition #3) under key learning pillars across the programme
- The above review, in identifying where sustainability will be prioritised will further facilitate the opportunity to refine and adapt the modules (to remove any unnecessary overlap) and offer the means to facilitate structural alignment
  - As the School works to embrace the UEM, the programme team need to make sure that any module development work is in line with UEM requirements
  - Programme/Module amendments will be planned in conjunction with the appropriate School/Faculty quality assurance processes
- The programme team will record the associated process to facilitate a framework/template for other School programmes that will undergo structural and sustainability alignment exercises

3.	The Panel is pleased to note that Sustainable Development Goals (SDGs) are being integrated into specific modules within the programme, such as the final project. The Programme Team should now indicate how they will continue to integrate the SDGs throughout all stages of the programme.

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| ***Response to condition #3*** |
| In the integration of sustainability into the TU027 programme, it is essential that two conditions are adhered to:

1. The integration is cognisant of the Engineers Ireland requirements, so as to ensure that the Associate Engineer (AEng) professional title is possible for the TU027 cohort, and
2. In conjunction with the structural alignment exercise as described in the response to condition #2, the integration must be cognisant of the evolving UEM.

The programme has been carefully considered to facilitate the requirements of programme area #7 pertaining to sustainability, within the engineering accreditation criteria as prescribed by Engineers Ireland. Further, and in the context of the evolving UEM and the School embracing the seven fundamentals, the programme development is also cognisant of fundamental #7, and development (or refinement) of module learning outcomes that encapsulate learning for Sustainability.

The Sustainability Tracking, Assessment & Rating System (STARS®) is a transparent, self-reporting framework to gauge relative progress toward sustainability. STARS was developed by the Association for the Advancement of Sustainability in Higher Education (AASHE) with broad participation from the higher education community. STARS offers a means to organise the programme in terms of module contributions and as such

- Provides a framework for understanding sustainability in all sectors of higher education,
- Enables meaningful comparisons over time using a common set of measurements developed with broad participation from the University's sustainability community,
- Creates incentives for continual improvement toward sustainability,
- Facilitates information sharing about higher education sustainability practices and performance,
- Facilitates a stronger, more diverse campus sustainability community in the context of the proposed UEM (mindful of the seventh fundamental).

As described at the recent Engineers Ireland Webinar[1], the STARS categorisation can apply to courses and modules as well such that strategic consideration as to what modules are optimal in achieving an appropriate focus on sustainability across the programme. The associated work will be supplemented by training (such as the Connecting the Dots afternoon of workshops on innovative teaching and learning practices, where the Sustainability Team will partner with the LTA Team and the University Education Model Team to host an afternoon of workshops on innovative teaching and learning practices. The new Sustainability Education Toolkit will also be launched during the event. |

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[1] McMachon & McKeever. Sustainable Education - a circular approach [webinar]. [Online]. Engineers Ireland, 22 February 2023. https://www.youtube.com/watch?v=x7Pu6ybcZUs
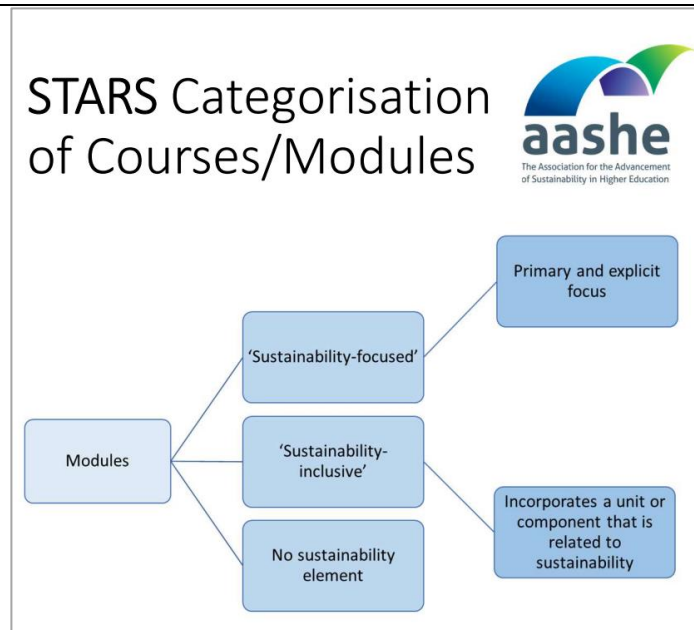
The STARS methodology is the means through which the programme team plans to a sustainability focus. At the same time, assurances with respect to structural alignment across the programme will be safeguarded. While facilitating an inspection concerning individual modules, it is important to highlight that the project module (ELEC 2005 Electrical Serv. Project), as a capstone project emulating the essential learning acquired in the programme, has been designed such that to facilitate evidence of a sustainability focus within the programme. Therefore, the process includes an individual modular assessment for sustainability emphases, and the influence of said modules on the project. Therefore a cyclical, iterative process is required to ensure that sustainability is not only available in individual modules, but also throughout the programme and emulated within the (capstone) project.

The process involved is described by the following flow diagram.
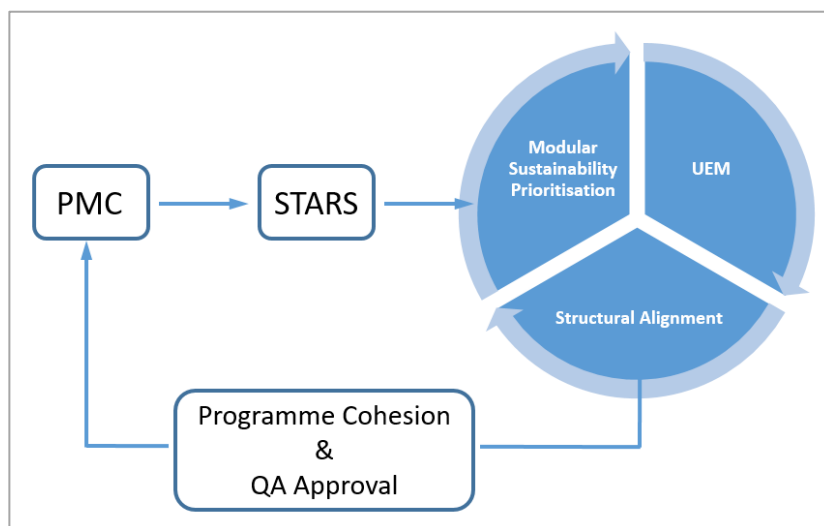
The process can be summarised as follows:

- The programme module catalogue reference for TU027 will be appraised (STARS) in terms of sustainability,
- The appraised modules, through a prioritisation, UEM and structural alignment exercise will facilitate a revised programme (modular) offering that may lead to structural amendments being required in the programme,
- The amended/revised programme will eventually be put through the Faculty Academic

	Quality Enhancement process for final approval, before the PMC is updated with a 'sustainability assured' School offering. The programme team, in realising the strategic integration of sustainability will capitalise on the plethora of tools and resources available[2][3][4].
4.	The module learning outcomes for some modules should be reviewed to ensure that appropriate terminology is used.

Response to condition #4

The programme team prioritised a feasible structure that could accommodate the requisite learning for a BEngTech (part-time) within three years. In this regard, two new modules were proposed (in the areas of Building Automation, and a refined project facilitation) and the learning within existing TU019/022 modules was retained so that a structural alignment exercise could take place over the 2023-24 academic year. As described in the response to condition #2, the same opportunity will be taken to ensure that SDG integration and alignment is also facilitated and that the overall learning model aligns with the requirements of the UEM.

In terms of the immediate exercise to bring the existing modules up to standard from an AKARI/PMC perspective, staff were engaged after the validation to review their modules as provided in the validation report and in terms of the marked -up book of modules submitted to the programme team after the validation event. The review and actions taken are described in **Appendix B** with respect to AKARI. Therefore, the book of modules in AKARI (containing the University Programme Modula Catalogue) for each module is appropriately cognisant of condition #4, and also conditions #5, #6. Moreover, **Appendix B** (as captured within the '*Summary of changes made (if relevant)*' column) summarises where module amendments were carried out (post validation event) for Quality Assurance consideration(s). This is notwithstanding the programme entering a phase of structural alignment (incorporating sustainability integration) next academic year (as specified in the response to condition #2).

5.	It is noted that many modules refer to continuous assessment type as 'To Be Confirmed', within the Programme & Module Catalogue. Assessment types should be clearly specified.

Response to condition #5

Please refer to the response to Condition #4; this requirement has been addressed and the associated detail(s) is/are captured in **Appendix B**.

6.	Module information should be correctly populated within the Programme & Module Catalogue to facilitate module approval.

Response to condition #6

Please refer to the response to Condition #4; this requirement will be addressed and the associated detail(s) is/are captured in **Appendix B**.

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[2] Brian Gormley (Head of Sustainability Education, TU Dublin) - https://www.tudublin.ie/intranet/faculties/faculty-of-computing-digital-data/learning-teaching-assessment/events/embedding-sustainability-in-the-curriculum.php

[3] UCC – **SDG Toolkit**: https://www.ucc.ie/en/sdg-toolkit/teaching/

[4] DeMontford –**SDG Planning Toolkits**: https://esdg.our.dmu.ac.uk/

7.	The transition arrangements to the new programme should be clarified and communicated to existing students.

Response to condition #7

The operational (planned) implementation of TU027, and the phasing out of TU019 and TU022, is illustrated in the figure provided on the following page.

Procedural Changes - *prioritising* TU027	TU027				TU019		TU022	
	Year 1	**Year 2**	**Year 3**		**Stage 2**	**Stage 3**	**Stage 4**	**Stage 5**
2022-23					C_{TU019}-2022		C_{TU022}-2022	
2023-24	C_{TU027}-2023	$(C_{TU027}$-2023)*				C_{TU019}-2022	$(C_{TU022}$-2023)	C_{TU022}-2022
2024-25	C_{TU027}-2024	C_{TU027}-2023	$(C_{TU027}$-2023)					$(C_{TU022}$-2023)
2025-26	C_{TU027}-2025	C_{TU027}-2024	C_{TU027}-2023					

*On the basis of successfully completing TU019

- 2023-24
  - Year one of TU027 comes on stream. Year two of TU019 is not offered but year three of TU019 facilitates existing students the ability to complete TU019 and achieve a Higher Certificate in Electrical Services Engineering;
  - Stage four of TU022 is not offered and instead, students enrolled on TU022 are granted (advanced) entry on to TU027, year two.
- 2024-25
  - TU019 is not offered
  - Neither is TU022 as the associated students will be engaged instead on TU027
- 2025-26
  - The TU027 is fully embedded into the School's offerings and in its second year of full operation.

Correspondence shall be provided to the relevant cohorts to explain the transition arrangements for the TU027 programme as presented in **Appendix C**.

The (2023-24) student cohorts that will be contacted (prior to the end of semester 2, of the 2022-23 academic year) and the rationale for the correspondence is presented in the following table:

Student Cohort	Rationale for the contact/correspondence
TU019-2[5]	This correspondence relates to students already collated through the school part-time admissions process as TU019 programme entrants for the 2023-24 academic year. These students will be informed that instead of a higher-certificate in Electrical Services and the subsequent BEngTech in Electrical Services Engineering ((2+2) years), they can instead complete the BEngTech in 3 years (as opposed to the previous 4-year requirement)
TU022-4[6]	This correspondence relates to students already collated through the school part-time admissions process as TU022 programme entrants for the 2023-24 academic year. These students will be informed that instead of completing the TU022 programme, they will instead be afforded advanced entry into second year of TU027. Moreover, the students will be advised that the new programme will achieve the same programme outcomes as prescribed through TU022, but with an enhanced project requirement. Further, the duration of their studies to achieve the BEngTech (in Electrical Services Engineering) will be unchanged
TU019-3	The proposed TU027 programme facilitates graduates from TU019 advanced entry into year 2 of the programme. Students entering into TU019-3 will need to complete the 2023-24 academic year successfully before availing of the advanced entry option. Therefore, and in terms of a condensed programme of studies, the proposed TU027 , in prioritising the Engineers Ireland AEng competence requirements, will not afford a more concise route to complete the BEng in Electrical Services.
TU022-5	While these students are in the final year of their studies for the BEngTech (Electrical Services Engineering), they will be contacted as a courtesy to ensure that the new programme offers a revised means to achieve the BEngTech, but the existing TU022 retains its academic relevance and value as acknowledged by the existing Engineers Ireland AEng accreditation.

3. Validation Panel Recommendations & School Responses

The Validation Panel's considered recommendations and the School Responses are provided in the following table.

Recommendations
1. The Panel notes that the School has sought advice and input from industry into programme developments. It recommends that these links are formalised to allow maximum benefit of this relationship for both sides (for example, the establishment of an Industry Liaison Board).
Response to recommendation #1
The School re-introduced an industrial liaison panel to consider energy, energy services and energy management themes in some of its level 8[7] and level 9[8] offerings. A report was produced highlighting how the industry panel was collated, organised and how the workshop progressed into a cohesive medium-term plan. A similar approach is planned for the TU027 programme (along with the TU706 programme, which facilitates a level 7 (BEngTech) in Electrical Services Engineering).

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[5] The entry point into TU019 is year 2. Therefore, students undertake two years of study (years 2 and 3) to complete the Higher Certificate in Electrical Services Engineering

[6] The entry point onto TU022 is stage 4. Students undertake two years of study (stages 4 and 5) to complete the BEngTech in Electrical Services Engineering

[7] BSc. in Electrical Services & Energy Management [TU802/820/025]

[8] MSc. in Energy Management [TU208/215]

The Industrial Liaison Panel engagement report that was organised ahead of the Energy Institute accreditation (2022) is available here:

IAB (Energy)
Workshop 2021.pdf

2.	A number of modules should be reviewed with a view to reducing the number of learning outcomes.

Response to recommendation #2

The initial steps to addressing this will occur during the review as outlined in the response to condition #4 above. However, and in association with the required structural and sustainability alignment exercise (as described in the response to condition #2), a more comprehensive exercise will take place to ensure that an appropriate number of achievable learning outcomes are prescribed per module.

3.	In relation to the delivery of blended learning, the Programme Team should continue to engage with training and be guided by best practice in this regard.

Response to recommendation #3

The programme modules are all facilitated through the University VLE, Brightspace. Staff in the delivery of the existing TU019 and TU022 programmes are active in developing integrated learning strategies and assessment strategies that utilise rubrics that encapsulate the learning outcomes associated with the programme. Moreover, the programme lecturers are active in training engagement opportunities as facilitated through the [VLE Hub]. This engagement/work will be transferred into the new TU027 programme as a priority to ensure best practices for the new TU027 programme are retained. Further, the School embraces the modalities for delivery in the UEM and this approach will inform our blended learning.

4.	It is important that teaching and learning within the programme supports peer to peer learning including collaborative work and the Panel recommends that the Programme Team consider such activities.

Response to recommendation #4

In designing the new TU027 programme, a 'community of learning' was prioritised. Notwithstanding the preference expressed by existing TU019 and TU022 students to picot entirely to online learning, the programme team feels strongly, that to ensure that TU027 students feel part of the school and its community, the students must be mandated to spend some of their learning on-site, physically present at Grangegorman where an inclusive learning culture can be encouraged and where bonds that facilitate peer-learning can be assured. This notwithstanding, the programme team acknowledges the excellent tools available that facilitate effective online learning and support. Therefore, the mix (blended learning) will ensure an effective opportunity for programme delivery and student success.

As part of the above learning modality, the programme team will use the opportunity for structural alignment (as discussed in the response to condition #2) and SDG integration (also discussed in the response to condition #2 and further elaborated in the response to condition #3) to develop learning and assessment strategies that encapsulate team and group learning initiatives. Further, the programme will make use of the informal and formal learning space in the new campus to facilitate the wider community of learners on the programme.

5.	The Panel acknowledges the efforts the Programme Team has made in relation to diversity within the programme and it recommends that it continues this engagement in order to meet EDI requirements into the future.

Response to recommendation #5
The Programme Team plans to enhance its engagement with the Faculty/University marketing efforts to further highlight the opportunities that a career in electrical services engineering can provide. This effort will be in conjunction with the Industrial Liaison Body (as highlighted in the response to recommendation # 1) to assist the attraction to electrical services engineering as a career option concurrently with the identification of the TU027 programme as an avenue of choice for an exceptional learning opportunity.   The programme also plans to investigate the mentoring opportunities available through the ESTeEM initiative and its applicability to the TU027 cohort – both in terms of a learning opportunity, but also in the context of recruitment.

Appendix A: TU027 Assessment Schedule (cognizant of conditions #1)

Module	Module Title	Lecturer	# CAs	CA1	CA2	CA3	CA4
PFDV 2213	Prof. Development &Key Skills1	L. Shoemaker	4	3	6	11	13
ELEC 2001	BIM Electrical	C. Conway	2	6	12		
MATH 2212	Engineering Maths 1	B. Redmond	1	8			
ENSC 2210	Engineering Science Module 1	J. Donnelly	2	5	10		
ELSD 2211	Electrical Services Design 3	T. Kealy	0 CA (Labs)				
BLDS 3313	Building Services Module 1	A. Colohan	2	6	12		
ELSP 3315	Electrical Serv Plant Mod 1	P. Leamy	3	4	8	13	
REEN 2204	Renewable Energy Plant 1	L. Donohoe	2	6	12		
PRJM 3316	Project Management Module 1	E. McLean	1+3	6	3	6	9
REEN 4402	Renewable Energy Plant 2	L. Donohoe	3 quiz + 3 Labs	Qz 1: Wk 5, Lab 1: Wk4	Qz 2: Wk 7, Lab 2: Wk 8	Qz 3: Wk 11, Lab 3: Wk 12	
ELSD 4020	Electrical Serv Design 4	P. Leamy	2	8	13		
BUAU 4025	Building Automation	J. Teehan	3	3	6	During 6-12 - 4 online quizzes	
ELSP 4024	Electrical Serv Plant Module 2	P. Leamy	2	5	11		
MATH 4019	Engineering Maths	B. Redmond	1	7			
ELEC 2005	Electrical Serv Project	M. Barrett; T. Kealy	1	15			
ELEC 3002	BIM Electrical	M. McDonald	2	6	12		
ELSD 5026	Electrical Services Design (Adv)	M. Barrett	4	3	6	11	12
BLDS 5025	Building Services Module 2	A. Colohan	2	6			

2023-24 Academic Calendar

Wk.	Sem 1	*Uni. Event*	Wk.	Sem 2	*Uni. Event*
1	18-Sep-23		1	22-Jan-24	
2	25-Sep-23		2	29-Jan-24	
3	02-Oct-23		3	05-Feb-24	
4	09-Oct-23		4	12-Feb-24	
5	16-Oct-23		5	19-Feb-24	
6	23-Oct-23		6	26-Feb-24	
7	30-Oct-23	Review Week	7	04-Mar-24	
8	06-Nov-23		8	11-Mar-24	
9	13-Nov-23		9	18-Mar-24	
10	20-Nov-23		10	25-Mar-24	Spring Break
11	27-Nov-23		11	01-Apr-24	Spring Break
12	04-Dec-23		12	08-Apr-24	
13	11-Dec-23		13	15-Apr-24	
14	18-Dec-23	Winter Break	14	22-Apr-24	
15	25-Dec-23	Winter Break	15	29-Apr-24	Review Week
16	01-Jan-24	Exams	16	06-May-24	Exams
17	08-Jan-24	Exams	17	13-May-24	Exams
18	15-Jan-24		18	20-May-24	

Week of term CA is Due

Appendix B: TU027 *Post Validation Event* Module Amendments (cognizant of conditions #4-6)

Year	S1; S2; 1	Module Code	Module Title	ECTS Credits	Module Coordinator	Summary of changes made (where relevant)
1	S1	PFDV 2213	Prof. Development &Key Skills1	5	L. Shoemaker	*LO's updated; reading list updated; over all tidying of module*
1	S1	ELEC 2001	BIM Electrical	5	C. Conway	*No changes requested. Module reviewed and no changes necessary at this time.*
1	S1	MATH 2212	Engineering Maths 1	5	B. Redmond	*MATH2212 module has been amended as a solid foundation in the fundamentals of mathematics that is required to progress with the engineering studies of the learner, as well as being a stand-alone module in mathematics.*
1	S2	ENSC 2210	Engineering Science Module 1	5	J. Donnelly	*Learning and teaching methods clarified. Learning outcomes updated. Reading list updated.*
1	S2	ELSD 2211	Electrical Services Design 3	10	T. Kealy	*Changes made to learning outcomes (ML06) and assessment roles*
1	S1	BLDS 3313	Building Services Module 1	5	A. Colohan	*Recently updated and approved by AQAWG. Reading list and learning outcome terminology updated.*
1	S1	ELSP 3315	Electrical Serv Plant Mod 1	5	P. Leamy	*Removed LO7 (covered by LO1), action verb in LO8 updated using provided guide on writing learning outcomes, reading list updated, unable to remove links under "Other Resources" as highlighted in validation panel feedback.*
1	S2	REEN 2204	Renewable Energy Plant 1	5	L. Donohoe	
2	S2	PRJM 3316	Project Management Module 1	10	E. McLean	*Changes made to tidy up, update reading list and fix errors in LOs*
2	S1	REEN 4402	Renewable Energy Plant 2	5	L. Donohoe	
2	S1	ELSD 4020	Electrical Serv Design 4	5	P. Leamy	*No changes requested. Two versions on AKARI, retain most recent.*
2	S2	BUAU 4025	Building Automation	10	J. Teehan	*Processed through AQAWG. No further action required*
2	S2	ELSP 4024	Electrical Serv Plant Module 2	5	P. Leamy	*Updated action verbs and terminology for learning outcomes as requested, updated "assessment role" to individual for both elements, reading list updated.*
2	S2	MATH 4019	Engineering Maths	5	B. Redmond	*Revisions made to LOs (reduced number) with a better alignment for the associated examination*
3	`	ELEC 2005	Electrical Serv Project	20	M. Barrett; T. Kealy	*Processed through AQAWG. No further action required*
3	S1	ELEC 3002	BIM Electrical	5	M. McDonald	*No changes requested. Module reviewed and no changes necessary at this time.*
3	S1	ELSD 5026	ELEC 3001 Electrical Services Design (Adv)	5	M. Barrett	*Adjusted learning outcomes. Updated reading list*
3	S2	BLDS 5025	Building Services Module 2	5	A. Colohan	*Improved learning outcome terminology, module information correctly populated and updated the reading list*

Appendix C: Student correspondence & the School Plans for the introduction of TU027

Correspondence Reference: TU019-2	
Subject:	Validation of TU027 (BEngTech in Electrical Services Engineering) and its implications for your planned studies

Dear TU019 Applicant,

You may be aware that the School has been working on the development of a new programme, a BEngTech in Electrical Services Engineering. This programme is the consolidation of both the TU019 (formerly known as DT078) and TU022 (formerly known as DT083). The proposed programme retains the core learning contained within the TU019 and TU022 programmes (namely, electrical building services engineering and facilities management, underpinned by building/industrial automation and project management), but achieves the programme outcomes, that we believe will be required for it to be accredited (AEng) by Engineers Ireland, within a three-year learning period.

The programme recently went through a University validation exercise successfully on May 23, so once some (non-onerous) associated conditions and recommendation are satisfied, we will be in a position to offer the programme this coming September for the 2023/24 academic year.

So how does this affect you as incoming students (and applicants to TU019)?

With the advent of this new programme, we will no longer offer TU019. So, subject to an admissions check, you will be directly enrolled onto the new offering (TU027), thereby facilitating a more streamlined route to a BEngTech in Electrical Services Engineering.

Is there anything I need to be aware of?

In order to facilitate a streamlined route, the number of ECTS required in year one has increased. This is offset by a reducing ECTS burden as you progress through the three years of study. This structure was purposely designed into the programme as our experience with TU019 students is that they are self-motivated, enthusiastic and engaged. The structural design builds towards a comprehensive capstone project in year three. In other words, the learning is designed to facilitate the best opportunity for a comprehensive project rendering immediate graduate readiness for industry upon successful programme completion.

The programme structure is provided below.

	Year	S1 / S2 / Yr-long	Module	
1	1	S1	PFDV 2213 Prof. Development &Key Skills1	5
2	1	S1	ELEC 2001 BIM Electrical	5
3	1	S1	MATH 2212 Engineering Maths 1	5
4	1	S1	ELSD 2211 Electrical Services Design 3	10
5	1	S2	ENSC 2210 Engineering Science Module 1	5
6	1	S2	BLDS 3313 Building Services Module 1	5
7	1	S2	ELSP 3315 Electrical Serv Plant Mod 1	5
8	1	S2	REEN 2204 Renewable Energy Plant 1	5
			Year 1 ECTS	45
9	2	S1	REEN 4402 Renewable Energy Plant 2	5
10	2	S1	ELSP 4024 Electrical Serv Plant Module 2	5
11	2	S1	PRJM 3316 Project Management Module 1	10
12	2	S2	BUAU3100 Building Automation	10
13	2	S2	ELSD 4020 Electrical Serv Design 4	5
14	2	S2	MATH 4019 Engineering Maths	5
			Year 2 ECTS	40
15	3	1	ELEC2005 Electrical Services Engineering Project	20
16	3	S1	ELEC 3002 BIM Electrical	5
17	3	S1	ELEC 3001 Electrical Services Desg (Adv)	5
18	3	S2	BLDS 5025 Building Services Module 2	5
			Year 3 ECTS	35
			Total ECTS	**180**

Inclusive of RPL on admission

Cells coloured in ▭ make-up the new award. RPL stands for 'recognised prior learning' (both academic qualifications and experience) and applicants are appraised on having achieved prior learning in advance of programme admission.

How will the programme be facilitated?

This is a part-time, evening programme offered over three evenings per week. The programme will leverage a blended learning approach. This means that there is a mix of in-person and online learning facilitated. The programme team is encapsulating enhanced learning delivery online with the learning community, peer-focused environment available through in-person delivery. The balance foreseen will be one day on-site at Grangegorman with two evenings facilitated online. Maximum use of the THU Dublin virtual learning environment (VLE), Brightspace, will be utilised.

What if I have any questions?

If you have questions, please direct them to Mr. Joseph Kellegher (Head of Discipline, Electrical Services Engineering). Joe can be contacted at **joseph.kellegher@tudublin.ie**. For now, details on the new programme are available in the student handbook[9].

We will be in touch closer to programme commencement to advise on induction/orientation where more information.

We look forward to welcoming you in September!

Kind regards,

……..

Correspondence Reference: TU022-4	
Subject:	Validation of TU027 (BEngTech in Electrical Services Engineering) and its implications for your planned studies
Dear TU022 Applicants,	

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[9] The Student Handbook provided at the validation event will accompany this email correspondence.

You may be aware that the School has been working on the development of a new programme, a BEngTech in Electrical Services Engineering. This programme is the consolidation of both the TU019 (formerly known as DT078) and TU022 (formerly known as DT083). The proposed programme retains the core learning contained within the TU019 and TU022 programmes (namely, electrical building services engineering and facilities management, underpinned by building/industrial automation and project management), but achieves the programme outcomes, that we believe will be required for it to be accredited (AEng) by Engineers Ireland, within a three-year learning period.

The programme recently went through a University validation exercise successfully on May 23, so once some (non-onerous) associated conditions and recommendation are satisfied, we will be in a position to offer the programme this coming September for the 2023/24 academic year.

So how does this affect you as incoming students?

With the advent of this new programme, we will no longer offer TU022. So, subject to admissions check, you will be directly enrolled onto year two of the new offering (TU027).

Is there anything I need to be aware of?

The new TU027 programme structure, from a TU022 perspective, is very similar to the existing TU022 programme. The structural design builds towards a comprehensive capstone project in year three. In other words, the programme retains the best opportunity for immediate graduate readiness for industry upon successful programme completion.

The programme structure is provided below.

	Year	S1 / S2 / Yr-long	Module	
1	1	S1	PFDV 2213 Prof. Development &Key Skills1	5
2	1	S1	ELEC 2001 BIM Electrical	5
3	1	S1	MATH 2212 Engineering Maths 1	5
4	1	S1	ELSD 2211 Electrical Services Design 3	10
5	1	S2	ENSC 2210 Engineering Science Module 1	5
6	1	S2	BLDS 3313 Building Services Module 1	5
7	1	S2	ELSP 3315 Electrical Serv Plant Mod 1	5
8	1	S2	REEN 2204 Renewable Energy Plant 1	5
			Year 1 ECTS	*45*
9	2	S1	REEN 4402 Renewable Energy Plant 2	5
10	2	S1	ELSP 4024 Electrical Serv Plant Module 2	5
11	2	S1	PRJM 3316 Project Management Module 1	10
12	2	S2	BUAU3100 Building Automation	10
13	2	S2	ELSD 4020 Electrical Serv Design 4	5
14	2	S2	MATH 4019 Engineering Maths	5
			Year 2 ECTS	*40*
15	3	1	ELEC2005 Electrical Services Engineering Project	20
16	3	S1	ELEC 3002 BIM Electrical	5
17	3	S1	ELEC 3001 Electrical Services Desg (Adv)	5
18	3	S2	BLDS 5025 Building Services Module 2	5
			Year 3 ECTS	*35*
			Total ECTS	**180**

Inclusive of RPL on admission

Cells coloured in ☐ make-up the new award. RPL stands for 'recognised prior learning' (both academic qualifications and experience) and applicants are appraised on having achieved prior learning in advance of programme admission.

How will the programme be facilitated?

This is a part-time, evening programme offered over three evenings per week. The programme will leverage a blended learning approach. This means that there is a mix of in-person and online learning facilitated. The programme team is encapsulating enhanced learning delivery online with the learning community, peer-focused environment available through in-person delivery. The balance foreseen will be one day on-site at Grangegorman with two evenings facilitated online. Maximum use of the TU Dublin virtual learning environment (VLE), Brightspace, will be utilised.

What if I have any questions?

If you have questions, please direct them to Mr. Joseph Kellegher (Head of Discipline, Electrical Services Engineering). Joe can be contacted at **joseph.kellegher@tudublin.ie**. For now, details on the new programme are available in the student handbook[10].

We will be in touch closer to programme commencement to advise on induction/orientation where more information.

We look forward to welcoming you in September!

Kind regards,

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Correspondence Reference: TU019-3

Subject:	Validation of TU027 (BEngTech in Electrical Services Engineering) and its implications for your planned studies

Dear TU019-3 students

You may be aware that the School has been working on the development of a new programme, a BEngTech in Electrical Services Engineering. This programme is the consolidation of both the TU019 (formerly known as DT078) and TU022 (formerly known as DT083). The proposed programme retains the core learning contained within the TU019 and TU022 programmes (namely, electrical building services engineering and facilities management, underpinned by building/industrial automation and project management), but achieves the programme outcomes, that we believe will be required for it to be accredited (AEng) by Engineers Ireland, within a three-year learning period.

The programme recently went through a University validation exercise successfully on May 23, so once some (non-onerous) associated conditions and recommendation are satisfied, we will be in a position to offer the programme this coming September for the 2023/24 academic year.

So how does this affect you as existing students?

In terms of TU019, it doesn't affect you. However, should you decide to move forward, instead of TU022, you will instead engage with TU027 as an advanced entry candidate, commencing at year two. Please note, for advanced entry into year two of the TU027 programme, applicants are required to have successfully completed TU019.

Is there anything I need to be aware of?

The new TU027 programme structure, from a TU022 perspective, is very similar to the existing TU022 programme. The structural design builds towards a comprehensive capstone project in year three. In other words, the programme retains the best opportunity for immediate graduate readiness for industry upon successful programme completion.

The programme structure is provided below.

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[10] The Student Handbook provided at the validation event will accompany this email correspondence.

	Year	S1 / S2 / Yr-long	Module	
1	1	S1	PFDV 2213 Prof. Development &Key Skills1	5
2	1	S1	ELEC 2001 BIM Electrical	5
3	1	S1	MATH 2212 Engineering Maths 1	5
4	1	S1	ELSD 2211 Electrical Services Design 3	10
5	1	S2	ENSC 2210 Engineering Science Module 1	5
6	1	S2	BLDS 3313 Building Services Module 1	5
7	1	S2	ELSP 3315 Electrical Serv Plant Mod 1	5
8	1	S2	REEN 2204 Renewable Energy Plant 1	5
			Year 1 ECTS	45
9	2	S1	REEN 4402 Renewable Energy Plant 2	5
10	2	S1	ELSP 4024 Electrical Serv Plant Module 2	5
11	2	S1	PRJM 3316 Project Management Module 1	10
12	2	S2	BUAU3100 Building Automation	10
13	2	S2	ELSD 4020 Electrical Serv Design 4	5
14	2	S2	MATH 4019 Engineering Maths	5
			Year 2 ECTS	40
15	3	1	ELEC2005 Electrical Services Engineering Project	20
16	3	S1	ELEC 3002 BIM Electrical	5
17	3	S1	ELEC 3001 Electrical Services Desg (Adv)	5
18	3	S2	BLDS 5025 Building Services Module 2	5
			Year 3 ECTS	35
			Total ECTS	**180**

Inclusive of RPL on admission

Cells coloured in ▭ make-up the new award. RPL stands for 'recognised prior learning' (both academic qualifications and experience) and applicants are appraised on having achieved prior learning in advance of programme admission.

How will the programme be facilitated?

This is a part-time, evening programme offered over three evenings per week. The programme will leverage a blended learning approach. This means that there is a mix of in-person and online learning facilitated. The programme team is encapsulating enhanced learning delivery online with the learning community, peer-focused environment available through in-person delivery. The balance foreseen will be one day on-site at Grangegorman with two evenings facilitated online. Maximum use of the THU Dublin virtual learning environment (VLE), Brightspace, will be utilised.

What if I have any questions?

If you have questions, please direct them to Mr. Joseph Kellegher (Head of Discipline, Electrical Services Engineering). Joe can be contacted at **joseph.kellegher@tudublin.ie**. For now, details on the new programme are available in the student handbook[11].

We will be in touch closer to programme commencement to advise on induction/orientation where more information.

We look forward to welcoming you in September!

Kind regards,

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Correspondence Reference: TU022-5
Subject: Validation of TU027 (BEngTech in Electrical Services Engineering) and its implications for your studies
Dear TU022-5 students

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[11] The Student Handbook provided at the validation event will accompany this email correspondence.

You may be aware that the School has been working on the development of a new programme, a BEngTech in Electrical Services Engineering. This programme is the consolidation of both the TU019 (formerly known as DT078) and TU022 (formerly known as DT083). The proposed programme retains the core learning contained within the TU019 and TU022 programmes (namely, electrical building services engineering and facilities management, underpinned by building/industrial automation and project management), but achieves the programme outcomes, that we believe will be required for it to be accredited (AEng) by Engineers Ireland, within a three-year learning period.

The programme recently went through a University validation exercise successfully on May 23, so once some (non-onerous) associated conditions and recommendation are satisfied, we will be in a position to offer the programme this coming September for the 2023/24 academic year.

So how does this affect you as existing students?

In terms of your TU022 studies, it doesn't affect you. You are completing your BEngTech in Electrical Services Engineering and your programme is accredited with Engineers Ireland. This new programme offers the BEngTech in Electrical Services Engineering achievement over the course of three years.

Is there anything I need to be aware of?

The new TU027 programme structure, and more specifically, years two and three, is very similar to the existing TU022 programme. The programme retains the best opportunity for immediate graduate readiness for industry upon successful programme completion.

The programme structure is provided below.

	Year	S1 / S2 / Yr-long	Module	
1	1	S1	PFDV 2213 Prof. Development &Key Skills1	5
2	1	S1	ELEC 2001 BIM Electrical	5
3	1	S1	MATH 2212 Engineering Maths 1	5
4	1	S1	ELSD 2211 Electrical Services Design 3	10
5	1	S2	ENSC 2210 Engineering Science Module 1	5
6	1	S2	BLDS 3313 Building Services Module 1	5
7	1	S2	ELSP 3315 Electrical Serv Plant Mod 1	5
8	1	S2	REEN 2204 Renewable Energy Plant 1	5
			Year 1 ECTS	45
9	2	S1	REEN 4402 Renewable Energy Plant 2	5
10	2	S1	ELSP 4024 Electrical Serv Plant Module 2	5
11	2	S1	PRJM 3316 Project Management Module 1	10
12	2	S2	BUAU3100 Building Automation	10
13	2	S2	ELSD 4020 Electrical Serv Design 4	5
14	2	S2	MATH 4019 Engineering Maths	5
			Year 2 ECTS	40
15	3	1	ELEC2005 Electrical Services Engineering Project	20
16	3	S1	ELEC 3002 BIM Electrical	5
17	3	S1	ELEC 3001 Electrical Services Desg (Adv)	5
18	3	S2	BLDS 5025 Building Services Module 2	5
			Year 3 ECTS	35
			Total ECTS	180

Inclusive of RPL on admission

Cells coloured in ⬜ make-up the new award. RPL stands for 'recognised prior learning' (both academic qualifications and experience) and applicants are appraised on having achieved prior learning in advance of programme admission.

This is a part-time, evening programme offered over three evenings per week. The programme will leverage a blended learning approach. This means that there is a mix of in-person and online learning facilitated. The programme team is encapsulating enhanced learning delivery online with the learning community, peer-focused environment available through in-person delivery. The balance foreseen will be one day on-site at Grangegorman with two evenings facilitated online. Maximum use of the THU Dublin virtual learning environment (VLE), Brightspace, will be utilised.

What if I have any questions?

If you have questions, please direct them to Mr. Joseph Kellegher (Head of Discipline, Electrical Services Engineering). Joe can be contacted at **joseph.kellegher@tudublin.ie**. For now, details on the new programme are available in the student handbook[12].

We will be in touch closer to programme commencement to advise on induction/orientation where more information.

We look forward to welcoming you in September!

Kind regards,

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[12] The Student Handbook provided at the validation event will accompany this email correspondence.