Programme Review Report

Bachelor of Science in Laboratory Analyst Studies (TU093) & Higher Certificate in Science in Laboratory Technician Studies (TU055)

Version of Report	*Author*	*Date*
1.0	Dr. Linda Moore	19.12.2024
		Click or tap to enter a date.
		Click or tap to enter a date.

Approval	*Date*
Documentation for Review approved by Faculty Board (Chair's Action)	08.05.2024
New Programme Titles approved by University Programmes Board (if applicable)	13.02.2023

PROGRAMME 1: Higher Certificate in Science in Laboratory Technician Studies (TU055)

Section A	**Programme Details**	
Title	Higher Certificate in Science in Laboratory Technician Studies	
NFQ Level	6	
ECTS Credits	120	
Mode of delivery	~~Part-time~~ ☐	**Full-time** X
Duration	~~Part-time:~~	Full-time: 2yrs
Modality/ies of delivery	In-person, On-campus ☐	Blended **X**
	Online ☐	Hyflex ☐
Classification of award	*Current:* Pass GPA 2-2.4 Merit 2 GPA 2.5-2.99 Merit 1 GPA 3.0-3.24	

	Distinction GPA 3.25-4.0 *Applicable University Assessment Regulations w.e.f. September 2025:* Pass GPA 2.0 Merit 2 GPA 2.6 Merit 1 GPA 3.0 Distinction GPA 3.60
Discipline Programmes Board	BioPharmaceutical Sciences
Faculty Board	Faculty of Sciences & Health
Schools involved in delivery	School of Chemical & BioPharmaceutical Sciences
Delivery location	Tallaght Campus & Apprentice Employer Company
Collaborative Partner (where applicable)	Consortium Programme: HEI partners = SETU, MTU Other Consortium partners = IBEC, SOLAS
Date of Commencement of revised programme	September 2025

Section B Awards	
Award Title	Higher Certificate in Science in Laboratory Technician Studies
NFQ Level	6
Award Class	Major
ECTS Credits	120
Classification of award	*Current:* Pass GPA 2-2.4 Merit 2 GPA 2.5-2.99 Merit 1 GPA 3.0-3.24 Distinction GPA 3.25-4.0 *Applicable University Assessment Regulations w.e.f. September 2025:* Pass GPA 2.0 Merit 2 GPA 2.6 Merit 1 GPA 3.0 Distinction GPA 3.60
Award (1) Title	N/A
Exit/Embedded	Exit ☐ Embedded ☐
NFQ Level	Select Level
Award Class	Choose an item.
ECTS Credits	
Classification of award	

PROGAMME 2: Bachelor of Science in Laboratory Analyst Studies (TU093)

Section A	**Programme Details**
Title	Bachelor of Science in Laboratory Analyst Studies
NFQ Level	7
ECTS Credits	180
Mode of delivery	~~Part-time~~ ☐ **Full-time** X
Duration	~~Part-time:~~ Full-time: 3yrs
Modality/ies of delivery	In-person, On-campus ☐ Blended **X**
	Online ☐ Hyflex ☐
Classification of award	*Current:* Pass GPA 2-2.4 Merit 2 GPA 2.5-2.99 Merit 1 GPA 3.0-3.24 Distinction GPA 3.25-4.0 *Applicable University Assessment Regulations w.e.f. September 2025:* Pass GPA 2.0 Merit 2 GPA 2.6 Merit 1 GPA 3.0 Distinction GPA 3.60
Discipline Programmes Board	BioPharmaceutical Sciences
Faculty Board	Faculty of Sciences & Health
Schools involved in delivery	School of Chemical & BioPharmaceutical Sciences
Delivery location	Tallaght Campus & Apprentice Employer Company
Collaborative Partner (where applicable)	Consortium Programme: HEI partners = SETU, MTU Other Consortium partners = IBEC, SOLAS
Date of Commencement of revised programme	September 2025

Section B	**Awards**
Award Title	Higher Certificate in Science in Laboratory Technician Studies
NFQ Level	7
Award Class	Major
ECTS Credits	180
Classification of award	*Current:* Pass GPA 2-2.4 Merit 2 GPA 2.5-2.99 Merit 1 GPA 3.0-3.24 Distinction GPA 3.25-4.0 *Applicable University Assessment Regulations w.e.f. September 2025:* Pass GPA 2.0

	Merit 2 GPA 2.6 Merit 1 GPA 3.0 Distinction GPA 3.60
Award (1) Title	Students wishing to exit after the first 2 years of the programme, and who have successfully completed the first 2 years of the TU093 programme, will be transferred to the TU055 programme (Programme 1 above) for the purposes of graduation, as the TU055 programme is identical to the first 2 years of the TU093 programme.
Exit/Embedded	Exit ☐ Embedded ☐
NFQ Level	Select Level
Award Class	Choose an item.
ECTS Credits	
Classification of award	

Section C - Programme Derogations (if required)	
Derogations from Assessment Regulations/Marks and Standards, requiring approval by University Programmes Board	
No new derogations sought by the School, nor recommended by Academic Quality Advisor/panel, at the time of writing the report. • New GPA classification as per "Classification of award" fields above does not require UPB approval, as new classification is in alignment with new Unitary Assessment Regulations, effective from September 2025, which coincides with the intended rollout of the updated version of this programme. • Change in programme titles received UPB approval (outside of the programme review process) on 13 February 2023 and is confirmed in the minutes of that meeting.	
University Programmes Board Approval	Date 13.02.2023

Section D	**Review Process**
Date of Programme Review	The Programme Review proceeded in two stages. ***Stage 1:*** *Programme Review Panel Meetings* **18th June 2024** (on-site, TU Dublin Tallaght Campus) **& 20th June 2024** (on-line, MS Teams, to facilitate engagement with consortium partners and stakeholders throughout the country) ***Stage 2:*** *Reconvened Programme Review Panel Meetings* **10th December 2024** (on-line, MS Teams, to facilitate engagement with consortium partners and stakeholders throughout the country). • The Programme Review panel reconvened to consider original programme documentation submissions, as well as updated programme documentation as per the actions specified in the Interim Report.

Context for Programme Review
How was the programme review process instigated, by whom/via which process?
The Programme Review event was initiated by the TU Dublin School of Chemical and BioPharmaceutical Sciences, Faculty of Sciences and Health, and their consortium partners, arising out of the programme review timelines associated with the Memorandum of Agreement (MOA) that governs the consortium-based delivery of the TU055 and TU093 programmes. The programmes required review ahead of the signing of an updated MOA to renew the partnership arrangements between the HEI providers in the delivery and assessment of the programmes. As TU Dublin is the lead provider for the programmes under review, the Programme Review was carried out within the TU Dublin's Quality Framework *Programme Review Policy* and associated procedures and processes. This is as per the provisions of the current MOA (Section 3) governing the consortium agreements for this set of programmes: *"The TU Dublin – Tallaght Campus Quality Assurance Framework (QAF) shall apply in the design, delivery, review and development of the programmes as delivered in all the provider consortium members."* The TU Dublin Quality Framework has since replaced the Tallaght Campus QAF due to ongoing integration of university policies, processes and procedures arising out of the merger of the campuses constituting the new TU Dublin. The other HEI partners are: • South Eastern Technological University (SETU) • Munster Technological University (MTU) Non-HEI consortium partners: • Irish Business and Employers Confederation (IBEC) • An tSeirbhís Oideachais Leanúnaigh agus Scileanna (SOLAS) The programmes under consideration in this review are post-2016 apprenticeship programmes, leading to the award of degrees. They therefore are subject to the same QA-QE considerations as other TU Dublin degree programmes. Stages 1 and 2 of both TU055 and TU093 are identical and are co-delivered.

Other matters to be brought to the attention of Faculty Board and/or Academic Quality Assurance & Enhancement Committee
The Programme review was undertaken in two Stages, as per the aforementioned description in Section D (Review Process). The Programme Review panel's rationale for proposing an Interim Report after the first panel meetings in June 2024, was that it was deemed that additional information was required. for the panel to be able to fully assess the documentation submissions against the Programme Review criteria with a view to proposing conditions and recommendations to further enhance the programmes as part of the review process. The Interim Report contained a series of actions and advisories in relation to key areas that the panel wished to explore further within the context of revised and updated Programme Review documentation: ○ Roles and responsibilities of all consortium stakeholders involved in the student's educational pathway through TU055/TU093, including their roles in the quality assurance and enhancement of the programme.

- SWOT analysis using data presented, including an explanation of how this was used in the planned enhancement of the programmes (as a PSER Section 9 specification is the presentation of a Programme Enhancement Plan based a SWOT analysis).
- Access to the programmes via RPL/non-standard entry route – details of processes involved to ensure the application of a fair, equitable and transparent system for applicants to the apprenticeship programmes.
- Review of programme documentation (programme and module descriptors) – to address a number of issues relating to indicative syllabi, module assessments, module learning outcomes, constructive alignment within modules, duplication of content/assessment/module learning outcomes, leading to multiple identical modules, alignment of awards and programme learning outcomes with the NFQ grid level indicators for Level 6 and Level 7 programmes.
- Five Work Based Learning (WBL) modules: revision to evidence the progression of student learning and development as they progress through the modules, ensuring constructive alignment between the indicative syllabus/module content, assessments and module learning outcomes; enhanced assessment descriptions and associated rubrics; overview of mentoring system. These actions were proposed to provide evidence of the student learning journey as they progress through the WBL modules. WBL Handbook
- Promotion of laboratory health and safety.

Upon consideration of both the original documentation (June 2024) and the resubmitted documentation (November/December 2024) and stakeholder meetings at both the original Programme Review meetings and the reconvened Programme Review meeting, the panel approved the programmes under review subject to a number of conditions and recommendations being met for enhancement of the programmes and optimisation/communication of their operational context, prioritising the following:

- Academic standard of the programmes.
- Fairness, equity and transparency of procedures and processes to support the alignment of the academic standards, student experience, programme access, delivery and assessment, across the three HEI providers.
- Meeting of TU Dublin Programme Review QA/QE requirements.

Please tick the type of programme review undertaken:

Full Programme Review ✓	Focused Programme Review ☐
If a focused programme review, what is/are the area(s) of focus? NA	

Implementation of revised programme
How will changes to revised programme be implemented, i.e. will all changes be implemented with immediate effect in the next academic year of delivery, or will the changes be phased in on a year-by-year basis?
• The School has yet to clarify timelines for implementation of changes to the operationalisation of the programmes, both intra- and inter-institutionally. This is required as part of the Programme Enhancement Plan (PSER, Section 9). It is a stated panel condition (C8) that a Programme Enhancement Plan be submitted as part of an updated PSER (see C8 for further detail).

Panel Members

Name	Role	Affiliation
Ger Reilly	Chair	Head of Apprenticeships and Further Education, Faculty of Engineering and Built Environment, TU Dublin
Jennifer Byrne	Internal Panel Member	Lecturer in Construction, School of Architecture, Building & Environment, Faculty of Engineering & Built Environment, TU Dublin
Dr. Noreen Morris	External Panel Member	Lecturer, Department Pharmaceutical Sciences and Biotechnology, Faculty of Science and Health, Technological University of the Shannon
Dr. Arjan Rossum	External Panel Member	Head of Department of Life & Health Sciences, School of Health & Science, Dundalk Institute of Technology
Dr. Linda Moore	Academic Affairs Representative	Quality Framework Team, Academic Affairs, TU Dublin

Documentation reviewed by panel:

- Student Handbooks
- Work Based Learning Project Handbook
- Exemplar assessment materials
- External examiner reports for the 3 years preceding the review
- Annual Programme Enhancement Reports (or equivalent) for the 3 years preceding the review
- TU055 and TU093 programme documents and associated modules (Akari-PMC format)
- School response to Interim Report (November 2024)
- Laboratory Health and Safety Information

(The draft MOA governing the delivery of the programmes within the consortium partnership was not under consideration by the Programme Review panel, as it does not form part of the TU Dublin's Programme Review process).

Schedule of Meetings – Review Stage 1

Programmatic Review Day #1 **Tuesday 18th June** **09:00-17:00** **TU Dublin Tallaght Campus** **Board Room, Main Building**		
Time	**Description**	**In attendance**
09:00 - 10:30	Panel Refreshments, Introductions & Preliminary Meeting	Panel only (*as listed in the table of panel members at the end of this schedule*)
10:30 - 11:30	Presentation and meeting with programme leadership team	Head of School Head of Discipline Programme Co-ordinator(s) Year Tutors (TU Dublin staff only)
11:30 – 12:00	Tour of TU Dublin Facilities	TU Dublin programme management, lecturing or technical staff as nominated by the TU Dublin School of Chemical & BioPharmaceutical Sciences.
12:00 - 12:15	Panel Comfort Break	Panel only
12:15 – 13:30	Panel Meeting & Lunch	Panel only
13:30 - 14:30*	Meeting with consortium partner programme leadership representatives, including other external stakeholders	1 representative from <u>each</u> of: TU Dublin SETU MTU IBEC SOLAS
14:30 – 15:00	Panel Comfort Break & Meeting	Panel only
15:00 - 16:00*	Meeting with staff responsible for module delivery and assessment	TU Dublin staff responsible for delivery & assessment of modules (module co-ordinators)
16:00 - 17:00	Panel Meeting & Preparation for Day 2	Panel only

Programmatic Review Day #2 **Thursday 20th June** **09:00-15:30** **Online in MS Teams** Join the meeting now Meeting ID: 365 780 422 924 Passcode: PLeVBx		
09:00 - 10:00	Panel meeting	Panel only
10:00 - 11:00	Meeting with staff responsible for module delivery and assessment (*Discussion of incl. modules and syllabus, teaching and learning methods and assessment, QA at module level*)	SETU & MTU staff responsible for delivery & assessment of modules (module co-ordinators) Minimum of 2 x SETU staff Minimum of 1 x MTU staff
11:00 - 11:15	Panel comfort break	Panel only
11:15 - 12:15	Meeting with Apprentice Employers	Minimum of 4 employers (2 x of these must be associated with the third year, i.e. TU093 apprentice employers) 1 x SOLAS representative
12:15 – 12:45	Meeting with past graduates of the TU055 & TU093 programmes	Minimum of 2 from TU Dublin Minimum of 2 from SETU
12:45 - 13:15	Meeting with current students of the TU055 & TU093 programmes	Minimum of 2 from TU Dublin Minimum of 2 from SETU Minimum of 1 from MTU
13:15-13:45	Panel lunch break	Panel only
13:45-14:45	Final panel meeting	Panel only
14:45 – 15:30	Final meeting with Programme leadership team to verbally report findings.	Head of School Head of Discipline Programme Co-ordinator Other staff as invited by the School of Chemical & BioPharmaceutical Sciences

Schedule of Meetings – Review Stage 2

TU055 Higher Certificate in Science in Laboratory Technician Studies **TU093 Bachelor of Science in Laboratory Analyst Studies** **Reconvened Programmatic Review Schedule** **Tuesday 10th December 2024** **09:00-13:00** **Online (MS Teams)** **Join the meeting now** Meeting ID: 316 265 530 012 Passcode: UPa9ee		
09:00 - 10:00	Panel meeting	Panel only
10:00 – 10:45	Meeting with Programme Leadership	TU Dublin as Lead Provider 1 x SETU rep 1 x MTU rep Others as deemed appropriate by the Programme Leadership Team
10:45-11:00	Panel comfort break	Panel only
11:00-12:30	Panel meeting	Panel only
12:30-13:00	Final meeting with Programme leadership team to verbally report findings. *Note:* - *A more detailed summary of the conditions and recommendations will be issued (by Academic Affairs) in writing to the School approx. 1-2 weeks after the programme review event.*	Head of School Head of Discipline Programme Chair Others as deemed appropriate by the Programme Leadership Team

Section E	**Programme Evaluation**	
Programme Review Process		
Criterion 1		
Was the programme review conducted in accordance with the Programme Review Process, i.e. were current students, graduates, employers, other appropriate stakeholders involved in the review process?	**Yes ✓**	No ☐

- The programme review was conducted in accordance with the TU Dublin's Quality Framework's Programme Review Policy and associated processes and procedures.
- A hybrid Programme Review facilitated extensive stakeholder engagement with programme leadership, students, past graduates, industry representative and other consortium partners throughout Ireland, over the 2 days of the initial Programme Review meetings (June 2024) and the reconvened Programme Review meeting (December 2024).
- The only deviation from the Programme Review Process was that there was no external industry/profession representative on the panel. This was due to the last-minute withdrawal (due to illness) of this panel member late the night before the first day of the review, leaving no time to find a replacement for the on-site review day the following day. The Programme Review process proceeded without this panel member, as the Programme Review process involved significant industry representation in a number of the stakeholder meetings, thereby providing strong industry input into the Programme Review. These engagement meetings provided the panel with a mechanism to gain insight into the industry in which the programmes operate, as well as to explore the industry view of the programmes and the enablers and barriers to student success and experience during their work-based learning.

Governance & Management		
Criterion 2		
Do the Programme Management and Quality Assurance arrangements align to TU Dublin Quality Framework processes?	Yes ☐	No ☐

- The PSER (Section 6) provides generic descriptions of the roles and responsibilities of various internal TU Dublin stakeholders as relevant to the programme management and QA arrangements. However, a description of how these apply within the operation (incl. QA-QE arrangements) of these programmes was not provided. Furthermore, the PSER does not document the roles and responsibilities of other stakeholders within the consortium in sufficient enough detail to describe their role in both programme management and QA-QE for the programmes. The establishment of a number of committees/boards was mentioned during the reconvened Programme Review panel meeting with the consortium stakeholders. The consortium partners indicated that these would be included in the MOA.
- The effectiveness of the current system used for academic QA across the consortium has not been explored or analysed in the PSER. The interconnecting roles between academic and enterprise is not documented, and it is not clear if, or how, these function as both a support and monitoring system to ensure consistency of approach across HEIs in the consortium partnership. Panel-stakeholder meetings elicited further information about this, but not enough to give the panel an overview of the operationalisation of programme management and QA arrangements. I

Student voice (PSER Section 6(f))

- The panel noted the description provided of what the student voice is and its significance, but there is no description of the role of the student voice in programme management and QA arrangements for the programmes as operational in TU Dublin and at consortium level.
-

External examiners (PSER Section 6(d))

- The panel noted the description provided of external examiner roles and responsibilities and the importance of such, but there is no associated explanation provided as to how this is operationalised both intra- and inter-institutionally, with a view to promotion of a co-ordinated approach, and consideration and implementation of external examiner recommendations in the promotion of ongoing quality enhancement of the programmes, both intra- and inter-institutionally.
- The external examiner reports submitted evidence a very diverse level of critical analysis of the programmes, and associated proposals for programme enhancements, across HEI providers, with some reports providing very little information in this regard.

Programme Enhancement Plan (PSER Section 9)

- The panel recognises that a SWOT analysis has been undertaken, with associated actions identified and listed against some of the SWOT items. The panel noted that , a cohesive plan giving an overview of actions, including prioritisation of actions, indicative timelines, dependencies, consortium partner roles and responsibilities in addressing these actions, was not presented in the PSER as would be desirable.

Programme assessment – threshold and pass marks (PSER Section 3)

- There is a high degree of variability in the way in which assessment pass marks and thresholds are recorded in the module descriptors, leading to a lack of clarity regarding the progression rules of the programme.
- The programme documents do not specify the overall programme pass mark, nor how the awards are calculated, leading to a lack of clarity re the award rules of the programme. BH – Has this been done?

Criterion 3		
Has the Annual Academic Quality Enhancement process been used to identify issues and actions that continually enhance the programme and student learning experience?	Yes ☐	No ☐

- Historical practice on the TU Dublin Tallaght Campus relied on the minutes of programme board meetings to capture QA-QE-relevant issues, discussions and action plans. As such, these were considered in lieu of the Programme Review process requirement for submission of programme annual quality reports. It is apparent from the QA-relevant minutes extracts presented to the panel that annual review of the programme is happening, and that student feedback is being gathered through surveys. No other mechanism appeared to be used to capture the student voice
- Some core issues have been identified regarding the efficacy of the annual QA/QE process overall:
  - The TU Dublin Annual Monitoring Reports submitted to the panel appear to be almost identical, despite being for different years.
  - The panel deems that the annual review process as presented for the purposes of the programme review is deficient in some detail. The QE documentation submitted demonstrated evidence of rolling of report content regarding proposed QA/QE actions from one annual report to the next.
  - There is a dearth of information regarding clearly identified actions, implementation, monitoring and closing-off of these actions from year-to-year. There is insufficient critical information about student performance contained in the annual QA/QE information submitted. (Please also refer to *Criterion 5* for related comments). Programme Enhancement document

Student Data		
Criterion 4		
On consideration of student recruitment data, is there evidence that there continues to be a market demand for the programme and that the programme remains viable?	Yes ☐	No ☐
The panel is of the opinion that this criterion is partially met, with the following areas identified for further enhancement: • The panel recognises that there are several references within the PSER to the marketing of the programme, however, there appears to be no assessment of the market demand for the programme, and no description of how such a demand can be assessed using the data provided. • The panel was unable to fully assess whether this criterion was met due to the dearth of critical analysis and associated narrative/interpretation of student recruitment data provided in the PSER. • The raw data suggests that there is an increase in student numbers every year, and panel-industry stakeholder meetings during the Programme Review event indicated that there is a demand for the programme, however the student intake each year seems low overall in the context of the programme now being run in three different University provider locations.		
Criterion 5		
On consideration of student performance, progression and completion data, are there concerns about student performance and have these been acknowledged and addressed through the programme review process?	Yes ☐	No ☐
• The panel recognises that there is a significant amount of both quantitative and qualitative data included in both the body and appendices of the PSER, and that the programme team has put a lot of effort and time into the gathering of this data. • However, a barrier to the panel's assessment of the information submitted relevant to this criterion is that the data was accompanied by very little critical analysis of the data and a dearth of reflection on the findings. The panel felt that such analysis should be done by the School – who are more familiar with the programme, its operation and context - rather than an assumption that the panel would attempt to draw conclusions from multiple pages of graphs, tables and/or raw data. • On the absence of the full analysis mentioned above, there is an associated dearth of information regarding potential student performance issues and where necessary relevant proposals to address these. This is particularly relevant, given that the reflection on the findings will be informed by the insights of both the TU Dublin programme leadership and those of consortium partners, which are necessary to inform any plans for programme enhancements relevant to the annual quality reporting (see *Criterion 3* for further information). This reflection should include an acknowledgement of any concerns about student performance and how these were addressed through the programme review process or how they inform the Programme Enhancement Plan. • It is acknowledged that the School Response to this item in the Interim Report consisted of tables appended to the PSER (Appendices 5 & 6). The panel would like to have available to them the findings of a more detailed and critical analysis and interpretation of these findings. This was not the case with no acknowledgement of positive and/or negative findings relating to performance, progression and completion, and how these were addressed in the Programme Review, or in the absence of this being considered, how these findings should inform actions as part of the Programme Enhancement Plan.		

Awards Standards		
Criterion 6		
Are the programme aims and learning outcomes clearly written using appropriate terminology?	**Yes ✓**	No ☐
Programme learning outcomes (PLOs) and module learning outcomes (MLOs) are generally written using appropriate terminology, with a few exceptions, where there is an over-reliance on verbs such as "understand", "understanding", "explore".		
Criterion 7		
Are the programme aims and learning outcomes aligned to the proposed level of the award on the NFQ in accordance with applicable Award Standards?	**Yes ✓**	No ☐
• The PLOs for the TU055 programme are in broad alignment with the NFQ requirement for a Level 6 programme. • The PLOs for the TU093 programme are in broad alignment with the NFQ requirement for a Level 7 programme.		
Criterion 8		
Will the curricula, teaching, learning and assessment methods enable students to reach the appropriate standard to qualify for the award(s)?	Yes ☐	No ☐

The panel is of the opinion that this criterion is partially met, with the following areas identified for further enhancement:
• Some modules have laboratory hours allocated, and MLOs requiring demonstration of practical skills, but the assessments do not cater for practical assessment of competencies, as most of the assessments are written assessments.
• Where the practical evaluation of skills is mentioned as an assessment type in the module descriptor, there is no clear outline of what practical skills will be assessed in the assessment named, nor the form of this assessment. In some instances, the assessment of practical skills is recorded as an assessment type relying on the submission of written documentation.
• Some assessment descriptions in the module descriptors lack detail / clarity. Some assessments simply state 'theory assessment' without further information. The panel recommends the use of some options of suitable assessments that can be utilised. It would also be possible to use multiple assessment options to allow a UDL approach in the application of assessments.
• Most of the Work Based Learning (WBL) modules do not contain a clear syllabus outline for each module, nor do they outline the practical competencies that should be achieved in each module, making it challenging for the panel to assess whether constructive alignment exists between the syllabus, assessments and MLOs.
  ○ This approach hinders the panel's assessment of the relationship between the WBL modules and other modules. This absence of clarity regarding content and interconnectivity means that it is not possible to map the students' work-based learning journey (as defined by the curricula, and LTA methods and approaches) towards their Level 6 or Level 7 award, including expected scaffolding of learning, and increased development of knowledge and application of skills across the two (TU055) or three (TU093) stages of the programme.
  ○ The consecutive module descriptions for the syllabi descriptions (in Module Overviews) present the case that the content of WBL should be being aligned to the academic study modules in the prior semester or prior semester minus 1. However, the MLOs for the WBL modules are presented in a more general form and don't confirm.
• The WBL modules provide for learning through project work and experiential work based learning. MLOs tend to focus in all cases only on the learning achievements through the project work related		

to specific projects, and reflective journals, which predominantly requires written submissions. There is no acknowledgement in the module descriptors of other types of learning that may occur in these workplace settings.

- 20% of each WBL module is assigned to a "Practical Skills Evaluation" assessment, with a description including "active experimentation". Yet, there is no description of (a) which practical skills are being assessed, (b) how these are being assessed, (c) who is assessing them.

Criterion 9		
Is ongoing programme development appropriately informed by internal and external stakeholder input (including industry/practice, professional/regulatory bodies, and community organisations)?	**Yes ✓**	No ☐

- It is evident that there has been extensive stakeholder engagement (and feedback) through the consortium provider committee and IBEC, and internally with students of the programme and that this has been used to inform programme development, although the methodology for how this is used to inform programme development now and into the future is unclear.

Criterion 10		
Does ongoing programme development take account of relevant external discipline benchmarks and Professional Statutory and Regulatory Body requirements?	Yes ☐	No ☐

NA

Programme Design		
Criterion 11		
Is the programme design informed by current development in the discipline and associated subject areas, having taken into consideration current trends, stakeholder feedback and market analysis?	Yes ☐	No ☐

The panel is of the opinion that this criterion is partially met, with the following areas identified for further enhancement:

- Appendix 3 of the PSER provides a summary of stakeholder feedback (raw data) associated with each of the module changes proposed, with the emphasis on the content of the module.
  While it is evident that stakeholder feedback informed changes at the module level, this did not include feedback on assessment design and implementation. There does not appear to have been any overall analysis of the stakeholder feedback with reference to the overall curriculum design and model of delivery or feedback about the programme learning outcomes and how these relate to the needs of industry and the market in general.

Criterion 12		
Is there a mechanism to ensure the input of external stakeholders in the ongoing development of the programme?	**Yes ✓**	No ☐

The panel recognises that the Consortium Steering Committee and some of the sub-committees/boards provide a platform for the engagement of both HEI and industry partners across the consortium. However, the way in which the information gathered through this mechanism is applied to ongoing programme development is not clear (see *Criterion 11*).

Criterion 13		
Is the programme curriculum well-structured with a logical progression of learning and development across the modules and stages?	Yes ☐	No ☐

(*Please also refer to Criterion 8 comments*)

The panel is of the opinion that this criterion is partially met, with the following areas identified for further enhancement:

- The panel recognises that a significant amount of work has gone into the development and updating of the Work Based Learning (WBL) modules (10 out of 60 Stage 1 credits; 20 out of 60 Stage 2 credits; 20 out of 60 Stage 3 credits) in response to the actions summarised in the Interim Report.
- The progression of learning across the 5 x WBL modules across the programme stages, and the relationship of the WBL modules to other modules in each stage is not yet fully evident. While there is some evidence that there is an expectation that the syllabi for these modules is aligned to the academic modules, this is not driven by the MLOs.
- There is also an opportunity for these modules to reflect the development of the individual apprentices personally as well as professionally in the context of transversal skills. The experiential learning and the project-based learning in the workplace are a good opportunity for these to be reinforced. The panel have been advised in meetings that this is happening, but it should be documented to ensure that it happens consistently (especially considering delivery by multiple partner HEIs)
- The progressive development of the apprentices, both personally and professionally, can be better reflected in the MLOs and how they seek to map the development of the individual as their confidence and ability grows through the various stages of the programme providing them with the scaffolding to move for a largely managed and guided status to one where they work independently and as part of teams contributing more as individuals and through greater autonomy.

Criterion 14		
Are there appropriate opportunities for students to undertake work-based learning, through work placements or work-based projects or assignments?	**Yes ✓**	No ☐

Students undertake extensive work-based learning throughout their apprenticeship programme. The programme delivery model includes 3 days/week in work placement and 2 days/work attending on-site lectures and practicals/lab work at the TU Dublin Tallaght Campus.

Criterion 15		
Are work/practice placements appropriate and fit for purpose, having regard to the requirements of professional, regulatory, and associative bodies where applicable, in the context of student achievement of learning outcomes and in the overall student experience?	Yes ☐	No ☐

(*Please also refer to Criteria 8 & 13 comments*)

The panel is of the opinion that this criterion is partially met, with the following areas identified for further enhancement:

The programme emphasises work-based learning, dedicating five modules and 60% of all programme credits specifically to this area. These modules aim to equip graduates with the skills to perform scientific, practical, and regulatory tasks safely. The programme's learning outcomes focus on preparing apprentices to execute tasks independently upon completion. The individual module learning outcomes and the work-based learning handbook are designed to structure this learning for apprentices.

Achievement of learning outcomes

- The alignment between Programme Learning Outcomes (PLOs), Module Learning Outcomes (MLOs), and assessment content in the work-based learning modules was reviewed by the panel. While the modules show an effort to align work-based learning with academic content, this alignment needs to be more clearly articulated in the MLOs.

- The module descriptors place a strong emphasis on project-based work completed by apprentices in their workplace. Other types of work-based learning are not clearly stated in the module content and are not captured in the monitoring and assessment of work based learning, and the associated meeting of the stated MLOs.
- It is also noted that there is opportunity for better adoption of UDL principles in the assessment of students, in that there is a significant emphasis on only written forms of assessment.

Mentoring system

- Definitions of "mentor" and "supervisor" should be revisited to ensure that there is no cross-over of these functions, while allowing the students a safe space to discuss work placement progress and any associated factors, without fear of this forming part of their assessment for their module/programme.
- IBEC's mentoring training for workplace mentors is welcomed by the panel. However, feedback during panel-stakeholder engagement sessions identifies a need for more frequent mentoring sessions and additional upskilling for mentors.
- The panel observed that there is no formal mentee training in the work modules or any prerequisite modules, although one module does focus on developing general critical skills.
- The mentor-mentee relationship is a collaborative partnership between an experienced individual, the mentor, and a less experienced individual, the mentee, to support the mentee's growth, development, and achievement of specific objectives by offering advice support and feedback at each meeting.

The panel recommends that the students undergo Mentee Training similar to that which IBEC provide for the Mentors. This training will include in the Roles and Responsibilities of the Mentee, the Mentees Duties, creating specific goals and targets, meeting schedules, continuous learning and feedback, code of conduct, communication and confidentiality.

Student experience – student voice

- Student feedback submitted as part of the Programme Review process evidence variability of the student experience. There is limited evidence in the PSER and panel-stakeholder meetings as to how this feedback is used to enhance the student experience or inform the Programme Enhancement Plan.

Reflective journals (30% of the mark for each WBL module)

- The panel welcomes the continued use of reflective journals as one of the methods of assessment of the WBL modules. While the learning of reflective practice is referenced in the Critical Skills Development module (CSKD H1000), there is no reference in the module descriptor to possible models that may be applied to this.
- The use of a reflective practice model/basic principles do not seem to form part of the assessment and awarding of marks for the reflective journal.
- The method of assessment of the reflective journals – which form a significant component of the WBL assessments – was not explained through the provision of a rubric.
- As the Students engage in 3 full days of work having to further work on providing written Reflective journals is very onerous on them. The panel would like to see more thought given to assessment of WBL modules and an assessment more aligned with the UDL Principles.
- Can the assessment be more practical based, video or audio blog or reflective journals showing images of the steps to work being carried out?
- Can time be allocated during the 3 day WBL to carry out work on the Reflective Journal/ assignment?

Criterion 16		
Is the required programme and module information provided in the correct format?	**Yes ✓**	No ☐
Programme documents and associated module descriptors were submitted through the Akari platform (Programme and Module Catalogue for TU Dublin). Overall, this criterion is therefore met overall. However, there are some conditions/recommendations associated with the information presented in some fields of the programme documents and module descriptors.		

Learning, Teaching & Assessment		
Criterion 17		
Does the assessment strategy provide an appropriate mix of assessment types that will enable students to demonstrate that they have met the module and programme learning outcomes?	Yes ☐	No ☐
• The assessment strategy relies heavily on the submission and assessment of written reports and other written forms of CA. • The emphasis on written assessment formats does not facilitate students who may be better suited to other forms of assessment (e.g., the use of short podcasts to capture reflection, instead of a written reflective journal entry). • There is a limited range of authentic assessment types applied in module assessments, as most module assessments rely on a combination of written report, written laboratory report, written theory assessment. • Some module descriptors include mention of a practical/skills evaluation as an assessment type, without providing details of the skills to be evaluated and a description of the method of evaluation of these skills. In some instances, written assessments are required to meet MLOs that require practical demonstration of laboratory skills to achieve. • Please also refer to *Criterion 8, and 20* comments.		
Criterion 18		
Do the learning outcomes and assessment strategy ensure that academic integrity can be maintained and attempted breaches of academic integrity are minimised/easily detected?	**Yes ✓**	No ☐
• The Student Handbook includes an outline of academic integrity concerns in general terms, including examples of academic integrity breaches and associated sanctions as applicable to this programme.		
Criterion 19		
Are there opportunities in all modules to provide students with timely and constructive feedback on their learning and development?	Yes ☐	No ☐
• Neither the PSER or Student Handbook/Work Based Learning Handbook provide information about how and when there will be feedback opportunities for students with regards to their assessment performance. Is this now included in SHB • While the panel recognises that the student will receive some feedback as part of the student mentoring system, this feedback should be general and relate to the students' professional and personal development. The students also require feedback regarding assessment tasks undertaken. • There are no clearly identified uses of formative or summative feedback in the non-WBL modules.		
Criterion 20		
Do the teaching and assessment methods consider the diversity of the student cohort?	Yes ☐	No ☐
(Please also refer to *Criterion 17* comments)		

- The PSER includes references to EDI considerations within TU Dublin, with a heavy emphasis on Athena Swan initiatives, but does not present information specific to EDI considerations in the adoption of teaching and assessment methods for the programmes under review.
- Assessment types predominantly require written submissions of work, which does not cater for students who may perform better in other types of assessments.

Student Supports & Learning Environment		
Criterion 21		
Are there sufficient and appropriate resources (e.g. human, financial and physical) to support the proposed programme aims and objectives, to deliver the programme as specified?	**Yes ✓**	No ☐
• The TU Dublin Programme Review policy requires the Head of School to include a commitment to meeting the resource requirements to undertake the programme as summarised in the PSER, upon submission of the PSER to the Faculty Board in advance of submission to Academic Affairs as part of the Programme Review process. • The tour of the laboratory facilities during the on-site panel visit, as well as information gleaned from stakeholders and student employers in industry evidence a good range of contemporary practical equipment to support the delivery of the programme and the meeting of its aims and objectives.		
Criterion 22		
Are there sufficient staff that are appropriately qualified and capable to support the programme delivery?	**Yes ✓**	No ☐
The staff delivering the programme are appropriately qualified, with both undergraduate and postgraduate qualifications. It is evident that the staff delivering the programme are actively engaged in ongoing professional development in both their scientific disciplines and the domain of learning, teaching and assessment.		
Criterion 23		
Are there appropriate arrangements in place to support the student experience and to monitor student performance?	Yes ☐	No ☐
(Also reference *Criteria 3, 5, 8, 13, 15 & 19*) The panel is of the opinion that this criterion is partially met, with the following areas identified for further enhancement: • Engagement with both internal and external stakeholders demonstrates that there are intra-institutional arrangements in place to support the student experience and to monitor their progress, however the way in which these are undertaken was not fully documented. • Feedback during panel-student/recent graduate meetings, as well as the raw student feedback data submitted in the PSER, suggest a varied student experience. This was not explored through a critical analysis of the student feedback findings in the PSER. • The mechanism for supporting the student experience and monitoring student performance at an inter-institutional level was not described in the documentation submitted.		
Criterion 24		

Are the access, transfer and progression arrangements clearly defined and appropriate, and aligned to TU Dublin policy/strategy in this regard?	Yes ☐	No ☐

- The PSER, programme documents and School response to the Interim Report action related to this area, do not include a description of the clearly defined, transparent, equitable and fair process, procedures and associated criteria for the assessment of applicant suitability for entry into the programmes through non-standard entry routes, which are the predominant route of entry into the programmes. The Interim Report provided detailed guidance as to what should be considered, as well as recommended actions, in this regard.
- While there is a reference to the application of the TU Dublin Recognition of Prior Learning (RPL) Policy, there is no information provided as to how this applies for both access to the programme and (possible) exemption from modules in the programmes.
- While there is a reference to guidelines being supplied to apprentice employers to guide them in their selection of candidates, the guidelines were not included in the documentation submitted.
- Panel-stakeholder meetings during the Programme Review event further evidenced significant variations in approach to non-standard entry (non-documented) procedures and decision-making, including responsibility for such decisions. This deficit of an agreed, documented and approach to RPL-based, or other means of, non-standard entry into the programmes and associated criteria, is compounded by a lack of clarity of decision-making roles and responsibilities in this regard.
- There is misalignment between the transfer and progression arrangements as clearly outlined in the Student Handbook, and the description of these arrangements in the Akari-PMC programme document.
- The panel recognises that there are challenges associated with alignment of non-standard access routes where apprentice employers play a role in student selection. However, it is for the reason there are potentially so many people involved in this process, that a clear set of non-standard entry route guidelines is needed to ensure fairness, equity and transparency of programme access.

Criterion 25		
Do the student supports and learning environment cater for equality, diversity and inclusivity of students?	Yes ☐	No ☐

A general reference is made in the PSER to institutional supports, but there is no description of how this is managed at a programme level. The Athena Swan award is described in the PSER, but no other description of fostering of inclusivity, e.g., regarding learning disability, race, ethnicity. How this is fostered at the level of the programmes is not mentioned.

Criterion 26		
Is the relevant programme information clearly communicated to the students to ensure they are informed, guided and cared for?	Yes ☐	No ☐

Both the Student Handbook and Work Placement Handbook were deficient in some required information. Please refer to Appendix 2 for a detailed description of the shortfalls of information, as well as some areas of inconsistency.

The panel recommends that a separate Work Placement Handbook be provided for each stage of the work placement.

Section F	Overall Recommendation of the Panel

1.	**Recommend continuing approval of programme as submitted, without amendment**	☐
2.	**Recommend continuing approval of programme, subject to minor amendments/editorial changes to be completed as soon as possible and with recommendations for consideration.** **Note:** recommendations are attached where it is considered that the programme would benefit from particular changes, or from a review of certain aspects of the programme over a period of time, with changes made if required. While recommendations are advisory in nature, there is an expectation that all recommendations are responded to appropriately and acted upon as appropriate.	☐
3.	**Recommend continuing approval of programme subject to the fulfilment of conditions. Recommendations for consideration may also be attached.** **Note:** conditions are attached where it is agreed that changes must be made to the programme / programme documentation prior to the commencement of the programme. Conditions must be set where issues are identified that relate directly to academic standards or to University regulations or procedures. It should be clear what is required in order to meet the conditions. A new programme cannot go forward to Faculty Board for consideration/approval unless a response to the Validation Report is submitted with revised programme documentation and the Academic Quality Enhancement Committee is satisfied that all conditions are met.	☒
4.	**Do not recommend continuing approval of programme.**	☐

Areas for Commendation	
1.	The consortium and people involved in delivering the programme are commended on the largely positive feedback provided by students and graduates of the programme during the panel-stakeholder engagement meetings. The panel also commends the open and honest way in which the internal and external stakeholders engaged with the panel during the stakeholder meetings.
2.	Good evidence of collaboration (both formal and informal) between TU Dublin, SETU, MTU and enterprise in which WBL comprises a significant and valuable component of the programme delivery model.
3.	There is strong alignment with the TU Dublin Strategic Plan, particularly the “Partnership” pillar.
4.	The chemistry lab apprenticeship programmes under review are highly regarded by the BioPharma, and related, industries. They provide upskilling and reskilling opportunities to apprentices, while also serving to improve staff retention and productivity in industry.
5.	Very well provisioned and maintained laboratory facilities with modern equipment for students studying on the programme.

In addressing the conditions and recommendations as outlined below, it is expected that the conditions are met through capturing/updating the relevant information within the PSER, programme and module descriptors (as required) and Student/Work Based Learning Handbooks (as relevant to the condition/recommendation). All required information should be reflected in the Programme Review documentation provided, as per the Programme Review documentation requirements.

The sections of the PSER referenced under the conditions and recommendations summarised below, as well as the accompanying programme review criteria references, are intended as a general guideline only. The conditions and recommendations may be applicable to other documents/PSER sections and programme review criteria.

Conditions of Approval	
C1	**Student recruitment and market demand** (*PSER Section 1/Criterion 4*): • A deeper, more critical, analysis of the student recruitment data and stakeholder engagement data regarding student recruitment and programme demand is required. This should be accompanied by a description in the Programme Enhancement Plan of how this data can be used to develop the ongoing market demand for the programmes. • It is expected that data tables or graphs be accompanied by an interpretative description of their relevance to this condition.
	School Response: The programme management team carried out a detailed analysis of student recruitment reflecting on the detailed data presented in the PSER, Stakeholder feedback, and relevant recent public report, in particular the EGFSN report "Skills for Biopharma: Researching and Forecasting the Current and Future Skills Needs of the Biopharma Sector in Ireland to 2027" (EGFSN, 2024) and National Apprenticeship office publications. (This is presented in PSER Rev 3, pages 8-12) In addition, the programme team and key stakeholders carried out a swot analysis of the programme. This analysis identified actions that could be taken to develop ongoing market demand for the programme were identified. These actions are incorporated into the Programme Enhancement Plan. (presented in appendix 9 to the PSER Rev 3) A Programme Management Handbook has been developed which incorporates a section on Marketing of the Programmes and Recruitment of both Sponsoring Companies and Apprentices. **The following documents have been developed/updated to include this analysis:** Programme Self Evaluation Report (Rev. 3), pages 8-12 Programme Enhancement Plan, Appendix 9 Programme Management Handbook
C2	**Student performance, progression and completion data** (*PSER Section 1/Criterion 5*): • A deeper, more critical analysis of student performance, progression and completion data, identifying key findings and acknowledging any concerns, and other impressions, regarding student performance, progression and completion, is required.

	• This analysis and critical reflection on performance should be undertaken both intra-institutionally and inter-institutionally. • It is expected that data tables or graphs be accompanied by an interpretative description of their relevance to this condition.
	School Response: The programme management team carried out an analysis of student performance, progression and completion data. In addition, awards classification and average module grades were reviewed, across the 3 universities. This review informed some of the proposed module changes and is presented in PSER Rev 3. Actions arising out of this review are presented in the Programme Enhancement Plan. **The following documents have been developed/updated to include this analysis:** Programme Self Evaluation Report (Rev. 3), pages 16-18 Programme Enhancement Plan, Appendix 9
C3	Programme access via non-standard entry pathways/RPL (PSER Section 3/Akari programme documents/Student Handbook): The panel expects an agreed (across consortium members) and documented set of RPL guidelines processes and procedures applicable to non-standardised entry into the programmes to ensure that there is a fair, equitable and transparent mechanism for entry into the programmes. This is consistent with the QQI's Statement of Strategy 2025-2027 and Green Paper on the QQI's Access, Transfer and Progression Policy, referencing "Entry arrangements which ensure learners can avail of fair and consistent entry arrangements" as a key priority area. As the programmes under review are academic programmes leading to academic awards on the NFQ, it is important to provide a mechanism to ensure that students joining the programme through non-standard entry routes are deemed to meet standards required through RPL means if they don't meet the minimum requirements as per the standard entry route via the CAO/Leaving Certificate application route and points requirements. Framed within the provisions of the TU Dublin RPL Policy, this must acknowledge consideration and documentation of an applicant's knowledge, skills and competence in relevant areas, allowing for the rigorous evaluation of prior learning and the identification of student needs prior to entry into the programme(s). The following should be included in an RPL procedure document to be agreed and be applicable across the consortium: • Whether RPL will be applied only for entry into the programme, or whether it can also be applied to gain exemption from modules in the programmes. • Core criteria for acceptance onto the programme. Bullet 2 below • RPL application process: e.g., as illustrated by the process flow chart, and information to be submitted by a potential student – such as in the form of a portfolio - to recognise formal, informal and non-formal learning relevant to their application for the programme. • Documentation of the RPL assessment process and outcome. • Defined roles and responsibilities within the consortium regarding non-standard entry decision-making and retention of data related to such decisions. • Assessment process with regards to documentation submitted, as mapped against the core criteria. • Interview criteria within the context of meeting academic entry requirements to Level 6/7 awards.

	• Approach to prioritisation of applications / candidates in the event of over-subscription to the programme(s), including agreed methodology for the allocation of places where there are more applicants than places available on the programme. • Relevant retention schedule in line with GDPR and university data retention policy. How long we keep data for. Other relevant information as deemed necessary by consortium partners. Include in PHB • Other relevant information as deemed necessary by consortium partners.
	School Response: An agreed RPL process has been developed by consortium members, it is discussed in PSER Rev 3 and is also presented in the Programme Management Handbook. This process addresses all the points noted in the condition description above. The programme documents and students' handbooks have been updated to reflect this process. **The following documents have been updated to reflect this:** Programme Self Evaluation Report (Rev. 3), page 32 Programme Management Handbook Student Handbooks Programme Documents - AKARI
C4	**Equality, diversity, inclusivity of students (*PSER Section 3/Criterion 25*):** The PSER should be updated to provide a clear description of how the student supports and programme learning environment(s) cater to the specific requirements and student needs of the programmes under review to promote equality, diversity and inclusivity of students registered on these programmes. Where relevant, this information should also be captured in the Student Handbook and the Work Based Learning Handbook.
	School Response: The Programme Self Evaluation Report has been updated to include further information on Equality, Diversity, Inclusivity of students at both a school and programme level and is presented in PSER Rev 3. The Student Handbooks has been updated to include details of these supports. **The following documents have been updated to reflect this:** Programme Self Evaluation Report (Rev 3), pages 32-34 Student Handbooks
C5	**Programme design and development influences and considerations (*PSER Section 4/Criterion 11*):** • A deeper critical analysis of stakeholder feedback, including consideration of other relevant factors, with a view to the identification of trends and analysis of the market in which the programmes are operating. • The emphasis of this critical analysis should be on how stakeholder feedback and identification of trends and market analysis findings are used to inform not only changes to the content of individual modules, but also the design of the programmes and their delivery. It is expected that any data tables or graphs be accompanied by an interpretative description of their relevance to this condition.

	School Response: A deep analysis of stakeholder feedback and other factors was carried out by the project team and key stakeholders. This analysis is presented in the PSER Rev 3. During this analysis, it was found that in the main, stakeholders did not identify any significant changes at a programmatic level. A detailed analysis was carried out at a module level which informed the proposed changes to the modules. **The following documents have been updated to reflect this:** Programme Self Evaluation Report (Rev 3), pages 37-41 and appendix 2 Programme Document - AKARI Module Documents - AKARI
C6	**Student engagement and learning experience (PSER Section 5/Criterion 15):** • Student feedback regarding work-based learning experience should be analysed separately (to other student feedback regarding other parts of the programmes) to inform best practice and associated operational matters to ensure the optimal student experience while on work placement. This should also be incorporated into the Programme Enhancement Plan.
	School Response The school recognised the role the voice of the student plays in programme enhancement and welcomes their feedback. The PSER Rev 3 has been updated to give a detailed description of how student opinions are gathered on the programme, and how any suggestions are incorporated into the Programme Enhancement Plan. Student feedback is completed as part of the programme boards in each of the three technological universities. The universities prioritize dealing with feedback from students on the work-based learning modules separately as part of the programme enhancement plan. **The following documents have been updated to reflect this:** Programme Self Evaluation Report Rev 3, pages 48-50 Student Handbook
C7	**Academic Quality Enhancement (*PSER Section 6/Criteria 2, 3*):** The panel expects that Section 6 be updated to include the following: ○ While Section 2 of the PSER submitted outlines a general description of roles and responsibilities of consortium partners, a more specific description is required of the roles and responsibilities of all consortium partners regarding the management and quality assurance and enhancement of the programmes. This should provide clarity regarding the operationalisation of these roles both within, and across, partner HEIs to promote consistency and alignment of QA approaches across all HEI providers. - PMHB

	○ While it is recognised that the consortium has mechanisms in place to capture student feedback, both within and across HEIs, a summary of these mechanisms should be presented in the PSER (Section 6(f)). Furthermore, it is expected that these will align with TU Dublin QA policies and processes regarding the capturing of student feedback for contribution to the School's Annual Quality Report. ○ A description of how the student voice is facilitated in programme management and quality assurance processes, with specific reference to the programmes under review. What fora are available to the students to inform ongoing discussion and decisions re the programmes? Furthermore, it is expected that these will align with TU Dublin QA policies and processes regarding the involvement of the student voice in programme management and quality assurance processes. ○ Operationalisation of an external examiner system must be described (as per PSER Section 6(d)) to meet TU Dublin requirements, both intra- and inter-institutionally. This must include the Programme Enhancement Plan to ensure that there is a consistent and collaborative approach to external examination across all three institutions, including information on how the external examiner recommendations are captured and used to inform the development and QA/QE of the programmes, and other relevant information. ○ It is expected that the PSER (Section 6(g)) be revised to include a description and associated action plan (as part of the Programme Enhancement Plan) for the operationalisation of the Annual Quality Enhancement process, both intra- and inter-institutionally, to ensure that this contributes towards ongoing enhancement of the programmes and student learning experience. ○ This should include specific reference – as applicable to this set of programmes - to: ○ Actions arising out of the critical analysis of the data contained in the annual quality reports, including student performance data. ○ A mechanism whereby actions in the report can be identified, monitored, and closed out from year-to-year. ○ QA-QE processes to address and monitor the student experience, learning, and assessment during work-based learning to ensure equity of experience for all students, and maintenance of academic standards and achievement of learning outcomes relevant to Level 6 and 7 programmes. ○ It is evident from stakeholder engagement meetings that there are a number of committees/boards that have been put in place within the consortium for the purposes of programme QE. - The Terms of Reference for each of these groups should be recorded to evidence of their role in programme quality assurance and enhancement. - The minutes of these group meetings and related actions leading to programme enhancement should be evaluated annually and used in the development of the Annual Quality Enhancement of the enhancement of the programmes. These should also be made available for Programme Reviews.
	School Response: The management of these programmes with a significant number of stakeholders is complex, many of whom are involved in the delivery. A Programme Management Handbook has been developed to document roles, responsibilities and procedures. There are many committees/groups involved in the management process as listed below: • The Management Group • The Programme Chair Group • The Lecturers' Forum • The Programme Provider Coordinating board • The Partner Providers' Programme Boards

	The membership and terms of reference for these groups is documented in the Programme Management Handbook. Minutes of these group meetings and related actions leading to programme enhancement will be evaluated annually and used in the development of the Annual Quality Enhancement of the enhancement of the programmes. Going forward these will be made available for Programme Reviews. The Programme Chair Group and the Programme Provider Coordination Board are specifically responsible for ensuring and promoting consistency and alignment of QA approaches across the HEI providers. In the future these groups will pay particular attention to ensuring that mechanisms for capturing student voices align with TU Dublin QA policies and processes regarding the involvement of the student voice in programme management and quality assurance processes. Mechanisms to incorporate external examiners input both at an inter and intra institutional level will be explored at the next programme chair group meeting in May 2025, and actions will be incorporated into the Programme Enhancement Plan, which will be a live document feeding into the Annual Quality Enhancement Process **The following documents have been updated to reflect this:** Programme Self Evaluation Report (Rev 3), pages 49-50 Programme Enhancement Plan, Appendix 9 Programme Management Handbook
C8	**Programme Enhancement Plan (*PSER Section 9/Criteria 2,3*)**: Relevant to multiple Programme Review criteria, and most of the PSER, and building on the SWOT analysis data presented in the PSER, a more comprehensive and cohesive Programme Enhancement Plan submission is required. The plan must clearly identify and prioritise the programme enhancements required, as identified through data analysis and consultation with stakeholders. This should include the approach to implementation of these enhancements, responsible people or teams for actions associated with the implementation of enhancements, plan for addressing and closing out of actions related to programme enhancements, and the identification of further actioned as needed. This information should be used to inform the Annual Quality Enhancement of the programmes.
	School Response: A comprehensive Programme Enhancement Plan has been developed based on PSER Rev 3 and SWOT analysis. This is presented in Appendix 9. The Programme Enhancement Plan has prioritised actions into categories and color-coded them based on : • Ongoing, • Short term, • Medium, • Long term The ongoing and short-term items will the main focus on an annual basis, with the intention of closing them, and then moving other longer term items into the ongoing and short term categories. At the next Programme Chair Group and the Programme Provider Coordination Boards the Programme Enhancement Plan will be reviewed in light of this updated Programme Self Evaluation Report and Programme Review Report and the Schools

	responses, and any additional action items identified will be added. The plan will be kept as a live document and updated according to stakeholder feedback. **The following documents have been updated to reflect this:** Programme Self Evaluation Report (Rev 3), pages 49-50 Programme Enhancement Plan, Appendix 9
C9	**Assessment- general (*PSER Section 5/Criteria 8, 20/module descriptors/Student Handbook/Work Based Learning Handbook*) :** • Alignment of assessment types and descriptions with the module MLOs is required in modules where this alignment is not evident (see Appendix 1 for details). • Modules with practical teaching hours and MLOs requiring demonstration of practical competencies should include assessment types and clear assessment descriptions showing how these MLOs can be achieved. • Where there is a requirement for laboratory skills assessment, the assessments that specifically assess these laboratory skills in a practical manner must be included where the MLOs describe the achievement of practical demonstration/use of laboratory equipment and skills. • The description of the assessment types should be detailed enough with regards to the assessment tasks (or range of possible tasks) and the % awarded for each of these. This is to facilitate consistency of approach across HEI providers. • Where practical evaluation of skills is recorded as an assessment type, the assessment description should include an outline of the practical skills that will be assessed and method of assessment (e.g., demonstration and observation of instrument calibration). This should align with the indicative syllabus of the module and the MLOs. • MLOs should be written in a manner consistent with Bloom's taxonomy (e.g. avoiding unmeasurable verbs such as 'understand') • Where minimum attendance requirements are specified in the Student Handbook, these must also be captured in the relevant module descriptors. • The Student Handbook and Work Based Learning Handbook must include a schedule of assessments, including a clear specification of whom (as per their defined role in the HEI/consortium) the assessor is for each of the assessments. This is particularly relevant for assessments carried out for the WBL modules. • The PSER, Student Handbook and Work Based Learning Handbook should include an outline of feedback mechanisms and timelines regarding student assessment work.
	School Response: The Modules, Student Handbooks and Work Based Learning Handbook have been reviewed and updated to address all the items listed above. Specific details of how each point is addressed are presented in a *Report Summary Document* which details the responses relating to modules and programmes in AKARI and the 3 Student Handbooks and the Work Based Learning Handbook. **The following documents have been updated to reflect this:** Programme Documents – AKARI Module Documents – AKARI Student Handbooks Work Based Learning Handbook

	The following document has been prepared to detail these responses: Report Summary Document
C10	**Assessment – pass mark and thresholds (*Criterion 2*)** • A programme pass mark of 40% must be adopted (in alignment with the SETU and MTU pass marks). A pass mark of 40%, with a threshold of 30% or 35% must be adopted for each of the modules (compensatory passes will be applied as per TU Dublin's GPA model). This is as per current Tallaght Marks & Standards, and also aligns with the TU Dublin's new Unitary Assessment Regulations, applicable from September 2025. Where different pass marks and/or thresholds are proposed by the programme team/consortium, approval for such must be presented to the TU Dublin University Programmes Board (UPB) for approval. • Where there is a requirement for assessment components to reach a minimum threshold mark, this must be clearly stated in the module descriptor. This must include the threshold that applies, as well as a clear statement as to the component of assessment to which the threshold applies. • The information above must be provided to ensure that there is clarity regarding the progression and award rules for the programmes.
	School Response: The programme pass marks have been updated to ensure they comply with TU Dublin's GPA model and the new unitary Assessment Regulations. Assessment requirements have been updated in the module descriptors and Student Handbooks as required. **The following documents have been updated to reflect this:** Programme Documents – AKARI Module Documents – AKARI Student Handbooks **The following document has been prepared to detail these responses:** Report Summary Document
C11	**Work Based Learning – Modules (*Criteria 8, 13, 15*):** The WBL module descriptors should be revised to reflect the following (in addition to comments related to all modules related to other conditions): • It would be beneficial to state some MLOs which relate to the new learning expectations in the context of most recent academic modules relevant to the stage of study, so that this gets assessed to demonstrate scaffolding of learning through the WBL modules. • The progression of knowledge, skills and competence as students' progress through the WBL modules should be evidenced from the information contained in the module descriptors.
	School Response: The WBL module descriptors in particular the Module Learning Outcomes have been updated to address the above points. **The following documents have been updated to reflect this:** Work Based Learning Module Documents – AKARI

	The following document has been prepared to detail these responses: Report Summary Document
C12	**Work Based Learning – Reflective Journals (*Criteria 8, 13, 15*):** • The panel expects to see the naming of common reflective practice models in relevant module descriptor(s) (e.g. CSKD H1000 Critical Skills Development module) associated with the preparation of students for reflective practice assessments. • A rubric for the assessment of reflective practice journals in Work Based Learning modules must be provided and should also be published in the relevant student handbooks. This should be inclusive of the requirement for the student to apply a reflective practice model to their reflection (it is suggested that the student be permitted to choose which of the models they have learned about to apply to their journals).
	School Response: A Critical Skills Development for Apprentices module with more specific laboratory apprenticeship approach had been created CSKD H1004 which includes numerous practice models. Any reflective practice model can be utilised for the workplace-based learning reflective journals. A Rubric for the assessment of reflective practice journal has been added to the Work Based Learning Module and Handbook. **The following documents have been updated to reflect this:** Work Based Learning Module Documents – AKARI Module Document (CSKD H1000) – AKARI Work Based Learning Handbook **The following document has been prepared to detail these responses:** Report Summary Document
C13	**Work Based Learning – Programme Learning Outcomes (*Criteria 8, 13, 15*):** • Programme learning outcomes should reflect the work-based learning component of the programme, recognising the development of the student through this component of the programmes, as they progress through the five WBL modules.
	School Response: Programme learning outcomes (PLOs) 01 to 11 of TU055 are all relevant to the work-based learning component of the Laboratory Technician programme. Similarly, all PLOs 01 – 10 of TU093 are relevant to the work-based learning component of the Laboratory Analyst programme. **The following documents have been updated to reflect this:** Programme Documents – AKARI
C14	**Work Based Learning – Mentoring (*Criteria 15*):** • Definitions and roles and responsibilities of “mentor” and “supervisor” should be revisited to ensure that there is no cross-over of these functions, while allowing the

	students a safe space with their mentor to discuss work placement progress and any associated factors, without fear of this forming part of their assessment for their module/programme or affecting future employment prospects. While documentation of the mentorship meetings should take place, this documentation should remain a private document between the student (mentee) and mentor. The student or mentor should not be required to submit this documentation for evaluation elsewhere outside of the mentee-mentor relationships. • The programme team must ensure that all mentors undertaking this mentor role in the workplace have been trained appropriately in advance of undertaking the role and that a training schedule is prepared as required to support this activity and refreshment of skills. • The programme should develop a mentee training element to the programme to be undertaken by the apprentice as a prerequisite to work based learning so that the apprentice is informed and prepared for engaging in this type of learning in the workplace.
	School Response: Meetings are documented using the mentor mentee meeting log, see appendix 7, and this information is retained by the mentors within the companies. Mentor training is carried out at the start of each academic year and a refresher session is held mid-year. There is also an online noninteractive session to facilitate changes in mentor. Any mentor who completes this session is required to attend the online interactives session at their earliest convenience. Clear instruction and training as a mentee are given during the initial laboratory apprenticeship induction. Here the roles and responsibilities of the company mentor and laboratory apprentice (mentee) are clearly discussed. The year 1 semester 1 Critical Skills Development for Apprenticeship module also incorporated mentor/ mentee aspects into the curriculum. Furthermore, support is extended to all mentees during each of the Workplace-Based Learning modules from the academic supervisor. **The following document has been updated to reflect this:** Work Based Learning Handbook
C15	**Akari-PMC Programme documents** • To be revisited and updated to provide sufficient detail in all key fields to ensure adequacy and accuracy of information captured, in line with TU Dublin Quality Framework requirements. The information captured in these documents must align with other documentation submitted in response to Programme Review conditions to ensure consistency of information and programme requirements across all documentation.
	School Response: TU055 & TU093 programme documents have been updated to ensure compliance with TU Dublin Quality Framework requirements and ensure consistency of information and programme requirements across all documentation. **The following documents have been updated to reflect this:** Programme Documents – AKARI

C16	**Akari-PMC module descriptors** • Conditions as per Appendix 1 for individual module descriptors.
	School Response: Module documents have been updated to include all the requirement in Appendix 1. **The following documents have been updated to reflect this:** Programme Documents – AKARI
C17	**Student Handbooks / Work Based Learning Handbooks** • Updating and alignment of Student Handbook and Work Based Learning Handbooks to align with TU Dublin requirements for each year of the programme. (*Refer to Appendix 2 for details that should be included*). • The panel requests that a full handbook for each year of the programmes be submitted for review.
	School Response: Student Handbooks and Work Based Learning Handbooks have been updated to align with TU Dublin requirements, as per Appendix 2 of this document. **The following documents have been updated to reflect this:** Student Handbooks Work Based Learning Handbook
C18	**MLO-PLO Mapping** Updated module learning outcomes (MLOs) should be mapped to the PLOs (to be included in the PSER or as an appendix to such).
	School Response: Module Learning Outcomes and Programme Learning Outcomes are aligned and mapped, and included in PSER Rev 3 Appendix 10 **The following documents have been updated to reflect this:** Programme Self Evaluation Report (Rev 3), Appendix 10

Recommendations	
R1	PSER headings and sub-headings for each section and sub-section should be clearly labelled. Tables and figures in the report should be labelled (preferably, numerically) to facilitate panel review and cross-referencing of data. These labels can also be used to identify data in the explanatory text accompanying the data and analysis of such.
	School Response: PSER Rev 3 has been updated to address this recommendation. **The following documents have been updated to reflect this:** Programme Self Evaluation Report (Rev 3)
R2	When referencing modules within all documentation, both the module code and module title (as per recorded in the Akari-PMC module descriptor) should be used.
	School Response: The Programme Self Evaluation Report (Rev 3) and all documents have been updated to include module title and code, as per AKARI
R3	Akari-PMC module descriptors Recommendations as per *Appendix 1* for individual module descriptors.
	School Response: All module descriptors have been updated in AKARI as per recommendations in appendix 1 of this document.
R4	Revisit MLOs commencing with the verb "understand" - it is queried how a student's ability to "understand", "demonstrate an understanding", "exhibit an understanding" can be shown/evidenced through the assessments used.
	School Response: All MLOs have been revised and updated according to this recommendation
R5	It is recommended that a student feedback mechanism is put in place early during the first work based learning module as a means to identify any issues that may arise in the early stages of the work placement.
	School Response: Feedback from apprentices on WBL module in now included in the individual Brightspace module to capture student feedback. This will commencing in semester two of a programme.
R6	The panel suggests that the School consider the validation of an add-on programme to facilitate students who have graduated with the L6 qualification in returning at a later date to register for the L7 qualification.
	School Response: Programme and School Management will consider this at a later date.
R7	The panel recommends that the School and consortium partners consider compilation of a programme management handbook. This can be used for knowledge transfer purposes in the event of changes in personnel within the consortium/HEI partners, as well as acting as a source of information for new HEIs who may apply to join the consortium. It could also be

	used to extract information relevant to the Programme Review criteria for presentation/submission at the next review of the programmes.
	School Response: A Programme Management Handbook has been created, and will be expanded as new SOPs are developed

Section G	**Approvals**

Review Report	
This Review Report has been agreed by the Review Panel and is signed on its behalf by the Panel Chair.	
Chair: Ger Reilly	
Signed:	Date: 19/12/2024

School Response	
The response to the conditions and recommendations has been agreed by the School and is signed by the Head of School.	
Head of School: Professor Declan McCormack	
Signed: 10.03.2025	Date: Click or tap to enter a date.

Appendix 1: **Module descriptors – conditions and recommendations**

Year 1 (TU055 & TU093)	
ACHM H1000	MLO9 suggests that a student should be able to demonstrate competency in several identified Laboratory tasks. Yet, there is no practical assessment of these tasks listed in the assessments? *Conditions:* ○ Evidence of alignment of MLO9 with assessment tasks is required. Alternatively, revision of MLO9 is required to remove reference to requiring a student to "carry out" a number of identified laboratory tasks. ○ **MLO9 revised** ○ MLOs should be written in a manner consistent with Bloom's taxonomy (e.g. avoiding unmeasurable verbs such as 'understand') ○ **Done** ○ Correct alignment of MLOs, as these seem to be listed incorrectly: Lab report: 5,6,7,8,9 Theory: 1,2,3,4 ○ Review book resources to ensure most up-to-date texts are recommended. ○ **Done, two newer book resources added to list**
ACSC H1000	MLO2 & MLO3 - suggests that a student should be able to demonstrate competency in several identified Laboratory tasks. *Condition:* Evidence of alignment of MLO2 & MLO3 with assessment tasks is required. Alternatively, revision of these MLOs is required to remove reference to requiring a student to "use" and "carry out" identified laboratory tasks. ○ **MLO2 & MLO3 revised**
AGMP H1000	*Conditions:* • Assessment Threshold - states threshold in respect of pass by compensation requirements. Specification as per Condition C10 is required. • **Done** • MLOs should be written in a manner consistent with Bloom's taxonomy (e.g. avoiding unmeasurable verbs such as 'understand') • **Done** *Recommendations:* • Learning and Teaching Methods: Typo "Blend" should read "Blended". • **Done** • Resources: Consider and refer more recently published text books and materials. • **Done, two newer book resources added to list**
AMAT H1000	*Recommendations:* • Resources: Consider and refer more recently published text books and materials. • **Done, two newer book resources added to list**
AMIC H1000	Assessment – Practical/Skills Evaluation

	The description of this assessment implies two assessments: laboratory book and end-of-module practical skills assessment. *Recommendation:* The two components of this assessment should be separated out into individual assessments to more clearly communicate assessment requirements and associated marks weightings. This will also facilitate a more efficient alignment between assessment items and MLOs. • **Done**
ASAF H1000	*Conditions:* • MLOs should be written in a manner consistent with Bloom's taxonomy (e.g. avoiding unmeasurable verbs such as 'understand') • **Done** *Recommendation:* Indicative Syllabus: Section 2: Typo in line: "Eye wash ad safety…." Should read: "Eye wash and…." • **Done**
AWRK H1000	• MLO1 does not describe how a student is able to demonstrate their knowledge, skills and competence. • **Done, ML01 reworded to remove ambiguity** • MLO6 refers to the ability to "communicate in oral form", but there is no assessment that provides the student with the opportunity to evidence the meeting of the learning outcome. • **Clarification on ML06.** **Oral communication is assessed, this is achieved by the oral presentation of the project to the module co-ordinator and their peers. This oral assessment contributed to their overall marks for their project.** • The content under Indicative Syllabus does not outline the syllabus for the module. *Conditions:* • Revisit MLO and module assessments to ensure alignment. • **Done** • Indicative syllabus – record the syllabus for the module. • **Done, relevant syllabus content added.** *Recommendation:* Revision of MLO1. • **Done**
CSKD H1004	*Conditions:* • " The Assessment Threshold" field must be completed (refer also to Condition C10 above). • Ensure that version of the module descriptor is current (it was noted during the review process that there is a new version of the module awaiting Head of School approval in Akari-PMC). • Models of reflective practice must be named. • The number of Learning Hours must total 100 hours/5 ECTS credits.

	• **Done, CSKD H1000 module replaced with Critical Skills Development for Apprenticeship module CSKD H1004, which is specific for the laboratory apprenticeship programme.**
Year 2 (TU055 & TU093)	
ACHM H2000	*Conditions:* • MLOs should be written in a manner consistent with Bloom's taxonomy (e.g. avoiding unmeasurable verbs such as 'understand') • **Done**
AINS H2000	This module has a significant practical component, as demonstrated by the Learning Hours, Indicative Syllabus and MLOs. Yet, the assessments are written reports of the practical work, while MLO2, MLO3 and MLO 5 require practical demonstration of competency. *Condition:* • Revision of MLOs and/or assessments to ensure greater alignment between MLOs, assessments and indicative syllabus. • **Done** • MLOs should be written in a manner consistent with Bloom's taxonomy (e.g. avoiding unmeasurable verbs such as 'understand') • **Done**
ALAB H2000	*Conditions:* • MLOs should be written in a manner consistent with Bloom's taxonomy (e.g. avoiding unmeasurable verbs such as 'understand') • **Done**
ALBS H2000	This module has a significant practical component, as demonstrated by the Learning Hours, Indicative Syllabus and MLOs. Yet, the assessment is a single written report of the practical work, while MLO1, MLO2, MLO3, MLO4, MLO5, MLO6 & MLO7 require practical demonstration of competency. *Condition:* Revision of MLOs and/or assessments to ensure greater alignment between MLOs, assessments and indicative syllabus. • **Done**
AMEN H2000	MLO6 requires practical demonstration of competency in use of equipment. Yet, there is no practical assessment of this listed in the descriptor. *Condition:* Revision of MLO6 and/or assessments to ensure greater alignment between MLOs, assessments and indicative syllabus. • **Done**
AWRK H2000	The content under Indicative Syllabus does not outline the syllabus content of the module. *Condition:*

	Content relevant to what is expected to be covered during this module must be recorded. **Done, relevant syllabus content added.**
AWRK H2001	The content under Indicative Syllabus does not outline the syllabus content of the module. *Condition:* Content relevant to what is expected to be covered during this module must be recorded. **Done, relevant syllabus content added.**
Year 3 (TU093 only)	
ALBS H3000	This module has a significant practical component, as demonstrated by the Learning Hours, Indicative Syllabus and MLOs. Yet, the assessment is a single written report of the practical work, while MLO2 & MLO3 require practical demonstration of competency. *Condition:* Revision of MLOs and/or assessments to ensure greater alignment between MLOs, assessments and indicative syllabus. • **Done**
ASTA H3000	*Conditions:* • MLOs should be written in a manner consistent with Bloom's taxonomy (e.g. avoiding unmeasurable verbs such as 'understand') • **Done**
AVAL H3000	*Conditions:* • MLOs should be written in a manner consistent with Bloom's taxonomy (e.g. avoiding unmeasurable verbs such as 'understand') • **Done**
AWRK H3000	The content under Indicative Syllabus does not outline the syllabus content of the module. *Condition:* Content relevant to what is expected to be covered during this module must be recorded. **Done, relevant syllabus content added.**
AWRK H3001	The content under Indicative Syllabus does not outline the syllabus content of the module. *Condition:* Content relevant to what is expected to be covered during this module must be recorded. **Done, relevant syllabus content added.**
PHAR H3002	The module assessment currently consists of a single CA worth 100% CA. *Condition:*

	• The CA components of the assessment must be presented as individual assessments in the Assessment Description field. • **Done** • MLOs should be written in a manner consistent with Bloom's taxonomy (e.g. avoiding unmeasurable verbs such as 'understand') • **Done**

Appendix 2: Student and Work Placement Handbook Criteria

(With reference to *Criterion 26)*

Student Handbook

A programme handbook provided is for Year 2 only as an example of the programme handbook.

Part 1:

Aligns with University Handbook Guidelines

Part 2:

Appears to be missing the general information section relating to the programme summary which should include:

Name of programme and main award(s) attached

Programme Duration

ECTS credits

NFQ Level

Proposed commencement date

Full-time or part-time

Mode of delivery

General introduction to the programme and to the specific year of study, including programme award title and NFQ level, where School is located and the programme delivered if face-to-face.

Details of Professional Body accreditation of programme and any Professional, Statutory or Regulatory Body requirements that might apply.

- **Included**

Part 3:

This section included a significant range of PLOs. These are not all listed in the Akari-PMC Programme documentation. Beyond this Part 3 would appear to be missing the following sections relating to the programme which should include:

Graduate Attributes, including a generic statement on Graduate Attributes and how these are delivered within the programme/modules, or a tailored set of Graduate Attributes for the programme, and how these are delivered.

- **Included**

Transfer and Progression opportunities within TU Dublin and other HEIs.

- **Included**

Awards including final award(s), exit awards available, and associated arrangements.

- **Included, paragraph about progression in section #3 after PLOs.**
- **TU055 Higher Certificate in Science in Laboratory Technician Studies (2-year programme).**

- **TU093 Bachelor of Science in Laboratory Analyst Studies (3-year programme).**

Collaborative Provision: Brief description of each partner and nature of relationship, roles and responsibilities of each partner, rights and entitlements of learners from each partner site.

- **Included**

Link to approved policy and provide further information as appropriate in relation to arrangements for the management of the programme including Discipline Programme Board and student representation.

Student Disciplinary Procedures

- Academic Quality Framework Student Disciplinary Procedures Approved by Academic Council 28th June 2023
- URL: https://www.tudublin.ie/media/website/explore/about-the-university/academic-affairs/documents/Student-Disciplinary-Procedures-V1.1.pdf

External Examiners Policy

- Academic Quality Framework External Examiners Approved by Academic Council 28 June 2023
- URL: https://www.tudublin.ie/media/website/explore/about-the-university/academic-affairs/documents/External-Examiner-Policy-V1.pdf

Student input into annual programme enhancement and making changes to modules and programmes.

- Student Evaluation of Programmes
- URL: https://www.tudublin.ie/explore/about-the-university/academic-affairs/enhancing-student-engagement-in-quality-enhancement/student-evaluation-of-programmes/

Links to approved policies etc in relation to arrangement for the Quality Assurance/Enhancement of the programme, including student evaluation system, external examiners, processes for annual programme enhancement and making changes to modules and programmes.

Employability Statement and graduate opportunities.

- Employability Statement included.
- Expected Graduate Opportunities included.

Approach to Internationalisation, in relation to international students and the internationalization of the curriculum.

- **Included**

Programme Schedule provided showing:

Lecture/tutorial/laboratory/other contact hours and self-directed learning hours.

ECTS per module.

Semester one and semester two modules, or year-long modules.

Module assessment breakdown by %.

The following additional subsections for Part 3 are currently appearing in part or whole in Part 2:

Assessment regulations*, including:

Requirements for progression from one stage of the programme to the next, or

Requirements for achieving the final award.

- **Section on Pass requirements and Progression Criteria:** Moved to Section #3

Classifications of award and how award classification is calculated.

- Moved to Section #3

Any approved derogations from the TU Dublin Assessment Regulations.

- **None required.**

Any programme specific requirements such as minimum thresholds of performance that might apply within module assessment components.

- **Done, minimum attendance for practical elements added to module assessment component on sheet.**

Schedule of assessment providing information on deadlines for the submission of assessments and on the receipt of feedback on assessed work (incomplete for schedule shown).

- **Schedule of assessments provided at start of each semester based on the academic calendar for that year.**
- **Draft schedule of assessments for both the Winter and Spring semesters added to each Student Handbook.**
- **Feedback on assessed work included in a previous section.**

Guidelines on the submission of assessments, including academic writing and referencing guidelines, and academic authentication / academic integrity guidelines.

- **Included in Section 2**

Information on penalties that may apply for the late submission of assessments, and arrangements for absence from assessments.

- **Included**

The following additional subsections required for Part 3 do not appear to be provided in the handbook in either Part 2 or 3:

- **Included**

Learning, Teaching and Assessment approaches and activities, with consideration of EDI matters.

- **Included**

Approaches to supporting Student Engagement and Success, with consideration of EDI matters.

- **Included**

Student induction and orientation.

- **Included**

Information on the VLE and eLearning available to students.

- **Included**

Professional / Regulatory body requirements, where applicable.

- **Solus included here.**

Method(s) of providing feedback to students on their assessed work – what students should expect.

- **Included**

Assessment guidelines including marking rubrics.

- **Please refer to module details on Brightspace for marking rubrics for individual modules other than the workplace-based learning modules, where the rubrics are also detailed in the handbook.**

Access to previous assessments including sample examination papers (weblink).

- **Included**

Information on penalties that may apply for the late submission of assessments, and arrangements for absence from assessments.

Work Based Learning Handbook

The handbook provided presents some information for the student which is relevant to the project and experiential learning that will take place independently, under guidance and through mentoring while the apprentices are with their employers. It was noted that the handbook is not presented in strict alignment with the TU Dublin Guidelines for Structured Work Placement/Practice Education Handbooks which outline the requirements. Those which appear to be provided in part or whole in the existing handbook include:

The module descriptors

Roles & responsibilities of the key personnel involved in the placement, e.g., student, TU Dublin supervisor, external supervisor, placement coordinator, etc.

Support provided to students on placement

Procedures for reporting and dealing with problems that may arise during placement;

Details of impact on award if student does not successfully complete placement;

Guidelines on general health and safety in the workplace; Guidelines on relevant insurance arrangements;

Detail on the assessment of the placement;

Templates for student learning logbook / technological supports provided to enable student to record the competencies / learning acquired on placement;

Opportunities provided to students post placement to reflect on learning and provide feedback.

Other requirements which would normally be applicable, but which do not appear to be provided in the existing handbook include:

- Rationale for the placement

  Included

- Benefits of the placement.

  Included

- Code of conduct expected of students whilst on placement;

  Included

- Support provided to students on placement

  Included

  - **TU Dublin Lead Academic Provider**
  - **Ibec Project Manager**
  - **Solus Supervisor**
  - **Highter Education Authority (HEA)**
  - **Sponsoring Company**
  - **Company Laboratory Apprentice Mentor**

- **Company Laboratory Apprentice Supervisor**
- **Academic Company Laboratory Apprentice Year Tutor**
- **Academic Company Laboratory Apprentice Programme Coordinator**

- Procedures for reporting and dealing with problems that may arise during placement;

  Included

- Details of impact on award if student does not successfully complete placement;

  Included

- Guidelines on general health and safety in the workplace;

  Included

- Guidelines on relevant insurance arrangements;

  Included

Report Summary Document

Bachelor of Science in Laboratory Analyst Studies (TU093)

& Higher Certificate in Science in Laboratory Technician Studies (TU055)

Conditions of Approval

The following are the conditions of approval for the two Laboratory Apprenticeship Programmes (TU055 & TU093) as set out in the Programme Review Report December 2024 complete with the school response. The report covers the responses relating to modules and programmes in Akari and the three Student Handbooks and the Work Based Learning Handbook. The responses relate to:

- ✓ Conditions C9 to C18
- ✓ Recommendations R2 to R5 &
- ✓ Appendix 1 & Appendix 2.

Condition #9

Assessment- general (*PSER Section 5/Criteria 8, 20/module descriptors/Student Handbook/Work Based Learning Handbook*) :

- Alignment of assessment types and descriptions with the module MLOs is required in modules where this alignment is not evident (see Appendix 1 for details).
- Modules with practical teaching hours and MLOs requiring demonstration of practical competencies should include assessment types and clear assessment descriptions showing how these MLOs can be achieved.
- Where there is a requirement for laboratory skills assessment, the assessments that specifically assess these laboratory skills in a practical manner must be included where the MLOs describe the achievement of practical demonstration/use of laboratory equipment and skills.
- The description of the assessment types should be detailed enough with regards to the assessment tasks (or range of possible tasks) and the % awarded for each of these. This is to facilitate consistency of approach across HEI providers.
- Where practical evaluation of skills is recorded as an assessment type, the assessment description should include an outline of the practical skills that will be assessed and method of assessment (e.g., demonstration and observation of instrument calibration). This should align with the indicative syllabus of the module and the MLOs.
- MLOs should be written in a manner consistent with Bloom's taxonomy (e.g. avoiding unmeasurable verbs such as 'understand')
- Where minimum attendance requirements are specified in the Student Handbook, these must also be captured in the relevant module descriptors.
- The Student Handbook and Work Based Learning Handbook must include a schedule of assessments, including a clear specification of whom (as per their defined role in the HEI/consortium) the assessor is for each of the assessments. This is particularly relevant for assessments carried out for the WBL modules.
- The PSER, Student Handbook and Work Based Learning Handbook should include an outline of feedback mechanisms and timelines regarding student assessment work.

School Response:

All handbooks have been updated in line with the recommendations identified. Please see the following comments below relating to each individual bullet points in Condition #9.

Bullet point 1 –

Alignment of assessment types and descriptions with the module MLOs- Completed in handbooks and on Akari.

Bullet point 2

Modules with practical teaching hours - Completed – Wording of MLOs changed

Bullet point 3

Requirement for laboratory skills assessment – Completed – Wording of MLOs changed

Bullet point 4

Description of the assessment types – Completed – Wording of MLOs changed

Bullet point 5

Practical evaluation of skills – Most laboratory assessments are written assessments of knowledge gained of the skills used during the laboratory practicals. The MLOs have been reworded to reflect this.

Bullet point 6

MLOs should be written in a manner consistent with Bloom's taxonomy – Completed – Wording of MLOs changed in line with Bloom's taxonomy.

Bullet point 7

Minimum laboratory attendance requirements – The following statement has been added to the student handbook and Akari. *"Attendance at the laboratory practicals of this module is mandatory. 100% attendance is expected at practicals, except in extenuating circumstances such as certified illness or bereavement. A minimum attendance of 75% is required for practicals. If a student/ laboratory apprentice does not achieve the 75% attendance threshold, they will not met the learning outcomes and cannot pass this module until they have attended the necessary practicals."*

Bullet point 8

Schedule of assessment– The schedule of assessments changes slightly each semester based on the academic calendar. The schedule is uploaded to Brightspace module page at the start of each semester and discussed in detail with the class. The draft schedule has been added to the Student Handbook. The Workplace Based Learning handbook informs the laboratory apprentice where to find the most recent version of the assessment schedule.

Bullet point 9

Outline of feedback mechanisms and timelines regarding student assessment work – the following statement has been added to the PSER, Student handbook and Workplace Based Learning Handbook.

"Feedback on assessed material is provided in many forms including but not limited to written or oral formats. Feedback is provided to the laboratory apprentices in a timely fashion. The aim is to provide relevant feedback to the laboratory apprentice on their assessed work within 2-3 weeks where possible."

Condition #10

Assessment – pass mark and thresholds (*Criterion 2*)

- A programme pass mark of 40% must be adopted (in alignment with the SETU and MTU pass marks). A pass mark of 40%, with a threshold of 30% or 35% must be adopted for each of the modules (compensatory passes will be applied as per TU Dublin's GPA model). This is as per current Tallaght Marks & Standards, and also aligns with the TU Dublin's new Unitary Assessment Regulations, applicable from September 2025. Where different pass marks and/or thresholds are proposed by the programme team/consortium, approval for such must be presented to the TU Dublin University Programmes Board (UPB) for approval.
- Where there is a requirement for assessment components to reach a minimum threshold mark, this must be clearly stated in the module descriptor. This must include the threshold that applies, as well as a clear statement as to the component of assessment to which the threshold applies.
- The information above must be provided to ensure that there is clarity regarding the progression and award rules for the programmes.

School Response:

Bullet point 1

Programme pass mark of 40% **–** The laboratory apprenticeship programmes are compliant with the current Tallaght Marks & Standards. They will be aligned with the TU Dublin's new Unitary Assessment Regulations, applicable from September 2025. All Programme documents will reflect any subsequent changes.

Bullet point 2

Requirement for assessment components to reach a minimum threshold mark – Completed – These assessment requirements have been added to the module builder on Akari under title module breakdown.

Bullet point 3

Information above must be provided **–** Compliant- The information has been included in the students' handbooks and on Akari.

Condition #11

Work Based Learning – Modules (*Criteria 8, 13, 15*):

The WBL module descriptors should be revised to reflect the following (in addition to comments related to all modules related to other conditions):

- It would be beneficial to state some MLOs which relate to the new learning expectations in the context of most recent academic modules relevant to the stage of study, so that this gets assessed to demonstrate scaffolding of learning through the WBL modules.
- The progression of knowledge, skills and competence as students progress through the WBL modules should be evidenced from the information contained in the module descriptors.

School Response:

- **Bullet point 1**
  The WBL module descriptors should be revised **–** the list of relevant modules covered per semester that could be drawn from when obtaining a workplace-based project have been included in the module descriptor. Furthermore, the MLOs for each of those modules is included in the workplace-based project handbook for easy access.
- **Bullet point 2**
  Progression of knowledge, skills and competence – the addition of the modules per semester and their relevant MLOs should demonstrate that the laboratory apprentice is enhancing their skillset in each new project in line with the MLOs.

Condition #12

Work Based Learning – Reflective Journals (*Criteria 8, 13, 15*):

- The panel expects to see the naming of common reflective practice models in relevant module descriptor(s) (e.g. CSKD H1000 Critical Skills Development module) associated with the preparation of students for reflective practice assessments.
- A rubric for the assessment of reflective practice journals in Work Based Learning modules must be provided and should also be published in the relevant student handbooks. This should be inclusive of the requirement for the student to apply a reflective practice model to their reflection (it is suggested that the student be permitted to choose which of the models they have learned about to apply to their journals).

School Response:

- **Bullet point 1**
  CSKD H1000 Critical Skills Development module -CSKD H1004 Critical Skills Development for Apprentices module with more specific laboratory apprenticeship approach had been created. Numerous practice models are used during the CSKD H1004 Critical Skills Development for Apprentices module. Any of those reflective practice models can be utilised for the workplace-based learning reflective journals. The Gibbs model is an example of one reflective model which has been included in the handbook under section 15 Workplace Based Learning Indicative Syllabus – Reflective Journal.

- **Bullet point 2**
  Rubric for the assessment of reflective practice journals – Rubric for the assessment of reflective practice journals has been added to the Workplace Based Learning modules and Handbook.

Condition #13

Work Based Learning – Programme Learning Outcomes (*Criteria 8, 13, 15*):

- Programme learning outcomes should reflect the work-based learning component of the programme, recognising the development of the student through this component of the programmes, as they progress through the five WBL modules.

School Response:

- Programme learning outcomes (PLOs) 01 to 11 of TU055 are all relevant to the work-based learning component of the Laboratory Technician programme.
- Similarly, all PLOs 01 – 10 of TU093 are relevant to the work-based learning component of the Laboratory Analyst programme.

Condition #14

Work Based Learning – Mentoring (*Criteria 15*):

- Definitions and roles and responsibilities of "mentor" and "supervisor" should be revisited to ensure that there is no cross-over of these functions, while allowing the students a safe space with their mentor to discuss work placement progress and any associated factors, without fear of this forming part of their assessment for their module/programme or affecting future employment prospects. While documentation of the mentorship meetings should take place, this documentation should remain a private document between the student (mentee) and mentor. The student or mentor should not be required to submit this documentation for evaluation elsewhere outside of the mentee-mentor relationships.
- The programme team must ensure that all mentors undertaking this mentor role in the workplace have been trained appropriately in advance of undertaking the role and that a training schedule is prepared as required to support this activity and refreshment of skills.
- The programme should develop a mentee training element to the programme to be undertaken by the apprentice as a prerequisite to work based learning so that the apprentice is informed and prepared for engaging in this type of learning in the workplace.

School Response:

- **Bullet point 1**
  Definitions and roles and responsibilities of "mentor" and "supervisor" **-** Meetings are documented using the mentor mentee meeting log, see appendix 7, and this information is retained by the mentors within the companies. The role of the mentor is to assist the mentee/ laboratory apprentice with company related issues as opposed to their company supervisor who may assess their work.

- **Bullet point 2**
  Mentors training -Mentor training is carried out at the start of each academic year and a refresher session is held mid-year. There is also an online noninteractive session to facilitate changes in mentor. Any mentor who completes this session is required to attend the online interactive session at their earliest convenience.

- **Bullet point 3**
  Mentee training element **-** Clear instruction and training as a mentee are given during the initial laboratory apprenticeship induction. Here the roles and responsibilities of the company mentor and laboratory apprentice (mentee) are clearly discussed. The year 1 semester 1 Critical Skills Development for Apprentices module also incorporated mentor/ mentee aspects into the curriculum. Furthermore, support is extended to all mentees during each of the Workplace-Based Learning modules from the academic supervisor.

Condition #15

Akari-PMC Programme documents

To be revisited and updated to provide sufficient detail in all key fields to ensure adequacy and accuracy of information captured, in line with TU Dublin Quality Framework requirements. The information captured in these documents must align with other documentation submitted in response to Programme Review conditions to ensure consistency of information and programme requirements across all documentation.

School Response:

Akari-PMC Programme documents Compliant in line with appendix 1 below, all Laboratory Apprenticeship modules and the two Laboratory Apprenticeship Programmes (TU055 & TU093) have been updated in accordance with appendix 1 of the Programme Review Report Dec 2024.

– Refer to Akari system

Condition #16

Akari-PMC module descriptors

- Conditions as per Appendix 1 for individual module descriptors.

School Response:

- Akari-PMC module documents Compliant in line with appendix 1 below, all Laboratory Apprenticeship modules and the two Laboratory Apprenticeship Programmes (TU055 & TU093) have been updated in accordance with appendix 1 of the Programme Review Report Dec 2024.
- – Refer to Akari system

Condition #17

Student Handbooks / Work Based Learning Handbooks

- Updating and alignment of Student Handbook and Work Based Learning Handbooks to align with TU Dublin requirements for each year of the programme. (*Refer to Appendix 2 for details that should be included*).
- The panel requests that a full handbook for each year of the programmes be submitted for review.

School Response:

- **Bullet point 1**
  Updating and alignment of Student Handbook and Work Based Learning Handbooks – Compliant in line with appendix 2 below, all Laboratory Apprenticeship Student Handbooks and the Workplace-Based Learning Handbook have been updated in accordance with appendix 2 of the Programme Review Report Dec 2024.

- **Bullet point 2**
  Full handbook for each year of the programmes – Compliant. Three different Student Handbooks have been submitted in line with details in Appendix 2 below.

Condition #18

MLO-PLO Mapping

Updated module learning outcomes (MLOs) should be mapped to the PLOs (to be included in the PSER or as an appendix to such).

School Response:

MLOs should be mapped to the PLOs Submitted. Please refer to Appendix 11 in PSER document.

Recommendations

Recommendation #2
When referencing modules within all documentation, both the module code and module title (as per recorded in the Akari-PMC module descriptor) should be used.

School Response:
Completed – changed based on recommendations in Appendix 1 of the Programme Review Report Dec 2024.

Recommendation #3
Akari-PMC module descriptors
Recommendations as per *Appendix 1* for individual module descriptors.
School Response:
Completed – changed based on recommendations in Appendix 1 of the Programme Review Report Dec 2024.

Recommendation #4
Revisit MLOs commencing with the verb "understand" - it is queried how a student's ability to "understand", "demonstrate an understanding", "exhibit an understanding" can be shown/evidenced through the assessments used.

School Response:
Completed – changed based on recommendations in Appendix 1 of the Programme Review Report Dec 2024.

Recommendation #5

It is recommended that a student feedback mechanism is put in place early during the first work based learning module as a means to identify any issues that may arise in the early stages of the work placement.

School Response:

A Microsoft MS survey feedback form for the laboratory apprentices to complete on their individual experience completing their workplace-based project within their company has been added to each Workplace-Based Learning module on Brightspace. The MS feedback form is available at the link below:

https://forms.office.com/Pages/DesignPageV2.aspx?prevorigin=shell&origin=NeoPortalPage&subpage=design&id=yxdjdkjpX06M7Nq8ji_V2uxOkYggyBlEncPlPDqUMGZUNlYyRzBZQVMyR1VCRVNYOVE3TTRVOUI0SS4u

Appendix 1: **Module descriptors – conditions and recommendations.**

Year 1 (TU055 & TU093)	
ACHM H1000	MLO9 suggests that a student should be able to demonstrate competency in several identified Laboratory tasks. Yet, there is no practical assessment of these tasks listed in the assessments? *Conditions:* ○ Evidence of alignment of MLO9 with assessment tasks is required. Alternatively, revision of MLO9 is required to remove reference to requiring a student to "carry out" a number of identified laboratory tasks. ○ **MLO9 revised** ○ MLOs should be written in a manner consistent with Bloom's taxonomy (e.g. avoiding unmeasurable verbs such as 'understand') ○ **Done** ○ Correct alignment of MLOs, as these seem to be listed incorrectly: Lab report: 5,6,7,8,9 Theory: 1,2,3,4 ○ Review book resources to ensure most up-to-date texts are recommended.

	○ **Done, two newer book resources added to list**
ACSC H1000	MLO2 & MLO3 - suggests that a student should be able to demonstrate competency in several identified Laboratory tasks. *Condition:* Evidence of alignment of MLO2 & MLO3 with assessment tasks is required. Alternatively, revision of these MLOs is required to remove reference to requiring a student to "use" and "carry out" identified laboratory tasks. ○ **MLO2 & MLO3 revised**
AGMP H1000	*Conditions:* • Assessment Threshold - states threshold in respect of pass by compensation requirements. Specification as per Condition C10 is required. • **Done** • MLOs should be written in a manner consistent with Bloom's taxonomy (e.g. avoiding unmeasurable verbs such as 'understand') • **Done** *Recommendations:* • Learning and Teaching Methods: Typo "Blend" should read "Blended". • **Done** • Resources: Consider and refer more recently published text books and materials. • **Done, two newer book resources added to list**
AMAT H1000	*Recommendations:* • Resources: Consider and refer more recently published text books and materials. • **Done, two newer book resources added to list**
AMIC H1000	Assessment – Practical/Skills Evaluation The description of this assessment implies two assessments: laboratory book and end-of-module practical skills assessment. *Recommendation:* The two components of this assessment should be separated out into individual assessments to more clearly communicate assessment requirements and associated marks weightings. This will also facilitate a more efficient alignment between assessment items and MLOs. • **Done**
ASAF H1000	*Conditions:* • MLOs should be written in a manner consistent with Bloom's taxonomy (e.g. avoiding unmeasurable verbs such as 'understand') • **Done** *Recommendation:* Indicative Syllabus: Section 2: Typo in line: "Eye wash ad safety…." Should read: "Eye wash and…."

	• **Done**
AWRK H1000	• MLO1 does not describe how a student is able to demonstrate their knowledge, skills and competence. • **Done, ML01 reworded to remove ambiguity** • MLO6 refers to the ability to "communicate in oral form", but there is no assessment that provides the student with the opportunity to evidence the meeting of the learning outcome. • **Clarification on ML06.** **Oral communication is assessed, this is achieved by the oral presentation of the project to the module co-ordinator and their peers. This oral assessment contributed to their overall marks for their project.** • The content under Indicative Syllabus does not outline the syllabus for the module. *Conditions:* • Revisit MLO and module assessments to ensure alignment. • **Done** • Indicative syllabus – record the syllabus for the module. • **Done, relevant syllabus content added.** *Recommendation:* Revision of MLO1. • **Done**
CSKD H1000	*Conditions:* • " The Assessment Threshold" field must be completed (refer also to Condition C10 above). • Ensure that version of the module descriptor is current (it was noted during the review process that there is a new version of the module awaiting Head of School approval in Akari-PMC). • Models of reflective practice must be named. • The number of Learning Hours must total 100 hours/5 ECTS credits. • **Done, CSKD H1000 module replaced with Critical Skills Development for Apprenticeship module CSKD H1004, which is specific for the laboratory apprenticeship programme.**
Year 2 (TU055 & TU093)	
ACHM H2000	*Conditions:* • MLOs should be written in a manner consistent with Bloom's taxonomy (e.g. avoiding unmeasurable verbs such as 'understand') • **Done**
AINS H2000	This module has a significant practical component, as demonstrated by the Learning Hours, Indicative Syllabus and MLOs. Yet, the assessments are written reports of the practical work, while MLO2, MLO3 and MLO 5 require practical demonstration of competency. *Condition:*

	• Revision of MLOs and/or assessments to ensure greater alignment between MLOs, assessments and indicative syllabus. • **Done** • MLOs should be written in a manner consistent with Bloom's taxonomy (e.g. avoiding unmeasurable verbs such as 'understand') • **Done**
ALAB H2000	*Conditions:* • MLOs should be written in a manner consistent with Bloom's taxonomy (e.g. avoiding unmeasurable verbs such as 'understand') • **Done**
ALBS H2000	This module has a significant practical component, as demonstrated by the Learning Hours, Indicative Syllabus and MLOs. Yet, the assessment is a single written report of the practical work, while MLO1, MLO2, MLO3, MLO4, MLO5, MLO6 & MLO7 require practical demonstration of competency. *Condition:* Revision of MLOs and/or assessments to ensure greater alignment between MLOs, assessments and indicative syllabus. • **Done**
AMEN H2000	MLO6 requires practical demonstration of competency in use of equipment. Yet, there is no practical assessment of this listed in the descriptor. *Condition:* Revision of MLO6 and/or assessments to ensure greater alignment between MLOs, assessments and indicative syllabus. • **Done**
AWRK H2000	The content under Indicative Syllabus does not outline the syllabus content of the module. *Condition:* Content relevant to what is expected to be covered during this module must be recorded. **Done, relevant syllabus content added.**
AWRK H2001	The content under Indicative Syllabus does not outline the syllabus content of the module. *Condition:* Content relevant to what is expected to be covered during this module must be recorded. **Done, relevant syllabus content added.**

Year 3 (TU093 only)

ALBS H3000	This module has a significant practical component, as demonstrated by the Learning Hours, Indicative Syllabus and MLOs. Yet, the assessment is a single written report of the practical work, while MLO2 & MLO3 require practical demonstration of competency. *Condition:* Revision of MLOs and/or assessments to ensure greater alignment between MLOs, assessments and indicative syllabus. • **Done**
ASTA H3000	*Conditions:* • MLOs should be written in a manner consistent with Bloom's taxonomy (e.g. avoiding unmeasurable verbs such as 'understand') • **Done**
AVAL H3000	*Conditions:* • MLOs should be written in a manner consistent with Bloom's taxonomy (e.g. avoiding unmeasurable verbs such as 'understand') • **Done**
AWRK H3000	The content under Indicative Syllabus does not outline the syllabus content of the module. *Condition:* Content relevant to what is expected to be covered during this module must be recorded. **Done, relevant syllabus content added.**
AWRK H3001	The content under Indicative Syllabus does not outline the syllabus content of the module. *Condition:* Content relevant to what is expected to be covered during this module must be recorded. **Done, relevant syllabus content added.**
PHAR H3002	The module assessment currently consists of a single CA worth 100% CA. *Condition:* • The CA components of the assessment must be presented as individual assessments in the Assessment Description field. • **Done** • MLOs should be written in a manner consistent with Bloom's taxonomy (e.g. avoiding unmeasurable verbs such as 'understand') • **Done**

Appendix 2: Student and Work Placement Handbook Criteria

(With reference to *Criterion 26)*

Student Handbook

A programme handbook provided is for Year 2 only as an example of the programme handbook.

Part 1:

Aligns with University Handbook Guidelines

Part 2:

Appears to be missing the general information section relating to the programme summary which should include:

Name of programme and main award(s) attached

Programme Duration

ECTS credits

NFQ Level

Proposed commencement date

Full-time or part-time

Mode of delivery

General introduction to the programme and to the specific year of study, including programme award title and NFQ level, where School is located and the programme delivered if face-to-face.

Details of Professional Body accreditation of programme and any Professional, Statutory or Regulatory Body requirements that might apply.

- **Included**

Part 3:

This section included a significant range of PLOs. These are not all listed in the Akari-PMC Programme documentation. Beyond this Part 3 would appear to be missing the following sections relating to the programme which should include:

Graduate Attributes, including a generic statement on Graduate Attributes and how these are delivered within the programme/modules, or a tailored set of Graduate Attributes for the programme, and how these are delivered.

- **Included**

Transfer and Progression opportunities within TU Dublin and other HEIs.

- **Included**

Awards including final award(s), exit awards available, and associated arrangements.

- **Included, paragraph about progression in section #3 after PLOs.**
- **TU055 Higher Certificate in Science in Laboratory Technician Studies (2-year programme).**
- **TU093 Bachelor of Science in Laboratory Analyst Studies (3-year programme).**

Collaborative Provision: Brief description of each partner and nature of relationship, roles and responsibilities of each partner, rights and entitlements of learners from each partner site.

- **Included**

Link to approved policy and provide further information as appropriate in relation to arrangements for the management of the programme including Discipline Programme Board and student representation.

Student Disciplinary Procedures

- Academic Quality Framework Student Disciplinary Procedures Approved by Academic Council 28th June 2023
- URL: https://www.tudublin.ie/media/website/explore/about-the-university/academic-affairs/documents/Student-Disciplinary-Procedures-V1.1.pdf

External Examiners Policy

- Academic Quality Framework External Examiners Approved by Academic Council 28 June 2023
- URL: https://www.tudublin.ie/media/website/explore/about-the-university/academic-affairs/documents/External-Examiner-Policy-V1.pdf

Student input into annual programme enhancement and making changes to modules and programmes.

- Student Evaluation of Programmes
- URL: https://www.tudublin.ie/explore/about-the-university/academic-affairs/enhancing-student-engagement-in-quality-enhancement/student-evaluation-of-programmes/

Links to approved policies etc in relation to arrangement for the Quality Assurance/Enhancement of the programme, including student evaluation system, external examiners, processes for annual programme enhancement and making changes to modules and programmes.

Employability Statement and graduate opportunities.

- Employability Statement included.
- Expected Graduate Opportunities included.

Approach to Internationalisation, in relation to international students and the internationalization of the curriculum.

- **Included**

Programme Schedule provided showing:

Lecture/tutorial/laboratory/other contact hours and self-directed learning hours.

ECTS per module.

Semester one and semester two modules, or year-long modules.

Module assessment breakdown by %.

The following additional subsections for Part 3 are currently appearing in part or whole in Part 2:

Assessment regulations*, including:

Requirements for progression from one stage of the programme to the next, or

Requirements for achieving the final award.

- **Section on Pass requirements and Progression Criteria:** Moved to Section #3

Classifications of award and how award classification is calculated.

- Moved to Section #3

Any approved derogations from the TU Dublin Assessment Regulations.

- **None required.**

Any programme specific requirements such as minimum thresholds of performance that might apply within module assessment components.

- **Done, minimum attendance for practical elements added to module assessment component on sheet.**

Schedule of assessment providing information on deadlines for the submission of assessments and on the receipt of feedback on assessed work (incomplete for schedule shown).

- **Schedule of assessments provided at start of each semester based on the academic calendar for that year.**
- **Draft schedule of assessments for both the Winter and Spring semesters added to each Student Handbook.**
- **Feedback on assessed work included in a previous section.**

Guidelines on the submission of assessments, including academic writing and referencing guidelines, and academic authentication / academic integrity guidelines.

- **Included in Section 2**

Information on penalties that may apply for the late submission of assessments, and arrangements for absence from assessments.

- **Included**

The following additional subsections required for Part 3 do not appear to be provided in the handbook in either Part 2 or 3:

- **Included**

Learning, Teaching and Assessment approaches and activities, with consideration of EDI matters.

- **Included**

Approaches to supporting Student Engagement and Success, with consideration of EDI matters.

- **Included**

Student induction and orientation.

- **Included**

Information on the VLE and eLearning available to students.

- **Included**

Professional / Regulatory body requirements, where applicable.

- **Solus included here.**

Method(s) of providing feedback to students on their assessed work – what students should expect.

- **Included**

Assessment guidelines including marking rubrics.

- **Please refer to module details on Brightspace for marking rubrics for individual modules other than the workplace-based learning modules, where the rubrics are also detailed in the handbook.**

Access to previous assessments including sample examination papers (weblink).

- **Included**

Information on penalties that may apply for the late submission of assessments, and arrangements for absence from assessments.

- **Included**

Appendix 2: Student and Work Placement Handbook Criteria

(With reference to *Criterion 26)*

Work Based Learning Handbook

The handbook provided presents some information for the student which is relevant to the project and experiential learning that will take place independently, under guidance and through mentoring while the apprentices are with their employers. It was noted that the handbook is not presented in strict alignment with the TU Dublin Guidelines for Structured Work Placement/Practice Education Handbooks which outline the requirements. Those which appear to be provided in part or whole in the existing handbook include:

The module descriptors

Roles & responsibilities of the key personnel involved in the placement, e.g., student, TU Dublin supervisor, external supervisor, placement coordinator, etc.

Support provided to students on placement

Procedures for reporting and dealing with problems that may arise during placement;

Details of impact on award if student does not successfully complete placement;

Guidelines on general health and safety in the workplace; Guidelines on relevant insurance arrangements;

Detail on the assessment of the placement;

Templates for student learning logbook / technological supports provided to enable student to record the competencies / learning acquired on placement;

Opportunities provided to students post placement to reflect on learning and provide feedback.

Other requirements which would normally be applicable, but which do not appear to be provided in the existing handbook include:

- Rationale for the placement

  Included

- Benefits of the placement.

Included

- Code of conduct expected of students whilst on placement;

Included

- Support provided to students on placement

Included

- **TU Dublin Lead Academic Provider**
- **Ibec Project Manager**
- **Solus Supervisor**
- **Highter Education Authority (HEA)**
- **Sponsoring Company**
- **Company Laboratory Apprentice Mentor**
- **Company Laboratory Apprentice Supervisor**
- **Academic Company Laboratory Apprentice Year Tutor**
- **Academic Company Laboratory Apprentice Programme Coordinator**

- Procedures for reporting and dealing with problems that may arise during placement;

Included

- Details of impact on award if student does not successfully complete placement;

Included

- Guidelines on general health and safety in the workplace;

Included

- Guidelines on relevant insurance arrangements;

Included

Programme Review Panel Interim Report:

Higher Certificate in Science in Laboratory Technician Studies (TU055)

Bachelor of Science in Laboratory Analyst Studies (TU093)

Programme Review Event: 18th & 20th June 2024

Report Issue Date: 2nd July 2024

Section A: Introduction 2

Section B: Context 2

Section C: Information Considered by Panel 3

Section D: Interim Report Rationale 4

Section E: Commendations 5

Section F: Actions Required in Advance of Reconvened Panel 5

Action Set 1: SWOT Analysis 6

Action Set 2: Student Data 7

Action Set 3: Programme Documentation 8

(a) Constructive Alignment 8

(b) Learning Outcomes 8

(c) NFQ Grid Level Indicators 9

(d) Assessments 9

(e) Indicative Syllabus 9

Action Set 4: Work Based Learning (WBL) 11

(a) WBL Module Descriptors 11

(b) WBL Assessment – Additional Documentation 12

(c) WBL Mentoring 14

(d) WBL Handbook 16

Action Set 5: Non-Standard Entry using Recognition of Prior Learning (RPL) 18

Action Set 6: Promotion of Laboratory Health and Safety 21

Section G: Documentation (Re)Submission 23

Appendix 1: TU Dublin Programme Review Panel 24

Appendix 2: TU055/TU093 Programme Review Schedule 24

Appendix 3: TU Dublin Programme Review Criteria 27

Section A: Introduction

This Interim Report has been agreed by the Programme Review panel for the following TU Dublin programmes delivered by the School of Chemical and BioPharmaceutical Sciences:

- Higher Certificate in Science in Laboratory Technician Studies (TU055)
- Bachelor of Science in Laboratory Analyst Studies (TU093)

This report contains a series of actions requested by the panel. These actions have been formulated to guide the programme team with regards to the requirements for the (re)submission of documentation pertaining to the Programme Review of the afore-mentioned programmes. This information is sought to facilitate the Programme Review panel in assessing the programmes against the criteria contained in the TU Dublin Programme Review report with a view to making a final recommendation regarding the outcome of the Programme Review.

Section B: Context

The programmes under review are established TU Dublin programmes, delivered as part of a consortium agreement within the framework of an existing Memorandum of Agreement (MOA). TU Dublin is the lead partner, with the South Eastern Technological University (SETU) and Munster Technological University (MTU) as the other Higher Education Institution (HEI) partners. The consortium management of these programmes is also supported and facilitated by SOLAS and IBEC.

The Programme Review event for these programmes was initiated by the TU Dublin School of Chemical and BioPharmaceutical Sciences, Faculty of Sciences and Health, and their consortium partners. As TU Dublin is the lead provider for these apprenticeship programmes, the Programme Review is being carried out within the TU Dublin's Quality Framework *Programme Review Policy* and associated procedures and processes. This is as per the provisions of the MOA (Section 3) governing the consortium agreements for this set of programmes:

> *"The TU Dublin – Tallaght Campus Quality Assurance Framework (QAF) shall apply in the design, delivery, review and development of the programmes as delivered in all the provider consortium members."*

The TU Dublin Quality Framework has since replaced the Tallaght Campus QAF due to ongoing integration of university policies, processes and procedures arising out of the merger of the campuses constituting the new TU Dublin.

The Programme Review panel (*Appendix 1)* is chaired by TU Dublin's Ger Reilly, Head of Apprenticeships and Further Education. The main Programme Review event was held on the 18th June 2024 (Day 1 – on-site at TU Dublin's Tallaght Campus) and 20th June 2024

(Day 2 – online in MS Teams to facilitate geographically-dispersed stakeholder engagement), as per the schedule of meetings in *Appendix 2*.

Section C: Information Considered by Panel

Documentation

The Programme Self-Evaluation Report (PSER), as approved by the Faculty of Sciences and Health Board by Chair's Action on 8th May 2024, was formally submitted to TU Dublin Academic Affairs on this date. In addition to the PSER, the panel was provided with the following documentation by the School:

- Student Handbooks (TU Dublin, MTU)
- Work Based Learning Project Handbook (TU Dublin)
- Exemplar assessment materials (TU Dublin, SETU, MTU)
- External examiner reports for 3 preceding years
- Annual Programme Enhancement Reports (or equivalent) for 3 preceding years
- TU055 and TU093 programme documents and associated modules

The panel were also issued with a list of the TU Dublin Programme Review Report criteria (*Appendix 3)* to facilitate the benchmarking of the documentation submitted, as well as information gleaned from panel-stakeholder meetings during the Programme Review, against these criteria. The panel considered these criteria within the context of multi-stakeholder consortium delivery and assessment, and the associated need to ensure parity of programme access, delivery and assessment of students, as well as support of all students enrolled on these programmes across all partner HEIs.

Stakeholder engagement and feedback

The panel met with a wide range of internal and external stakeholders over the course of the Programme Review events on 18th and 20th June. This included programme leadership and teams from the three partner HEIs (TU Dublin, SETU, MTU), as well as current students and past graduates of these programmes. The panel also met with apprentice employers, and representatives from SOLAS and IBEC.

Section D: Interim Report Rationale

Consideration of all the documentation provided, as well as information gleaned from panel meetings with stakeholders, informed a greater understanding by the panel of the programmes and their management and operation within the consortium partnership framework.

Careful deliberation of this information led the panel to conclude that it is not yet in a position to complete its work by arriving at a recommendation regarding the outcome of the Programme Review of the afore-mentioned programmes, as per the TU Dublin Programme Review criteria (*Appendix 3*). Instead, the panel concluded that additional information is required from the TU Dublin School of Chemical and BioPharmaceutical Sciences to progress the Programme Review process. In this regard, the panel has identified a set of actions that will need to be undertaken by the School to supply the panel with sufficient information to benchmark the programmes with reference to the Programme Review criteria (*Appendix 3*), within the context of a consortium-delivered set of programmes. In reviewing the information, the panel is cognisant of the need for clarity and transparency of documentation and implementation of programmes, particularly given the significant work-based learning (WBL) component of the programmes, and the delivery of the programmes over three partner HEIs (with the possibility of the number of HEIs being expanded in the future).

Once these actions have been addressed, the panel will reconvene to consider the updated documentation with reference to the criteria in *Appendix 3*. The panel may at that time request a further meeting with the programme leadership, should it be deemed necessary by the panel. Following the review of resubmitted documentation, as well as the outcome of meetings, the panel will make a recommendation to the TU Dublin Academic Quality Assurance and Enhancement Committee (AQAEC) regarding the outcome of the Programme Review and completion of the Programme Review report. This report may include further specific conditions and/or recommendations for the School to respond to.

The panel took great note of the unique attributes of the programmes being reviewed and of the work undertaken by the School in working with external partners to deliver the programmes as well as the challenges these present for the School. Furthermore, the panel commends the School of Chemical and BioPharmaceutical Sciences and consortium partners for all of the work that has been undertaken to date in relation to the updating and reviewing of these programmes. Detailed commendations are included in the next section, Section E. Section F summarises the actions required in advance of the panel reconvening to further the Programme Review process.

Section E: Commendations

- The chemistry lab apprenticeship programmes under review are highly regarded by the BioPharma, and related, industries. They provide upskilling and reskilling opportunities to apprentices, while also serving to improve staff retention and productivity in industry.

- We would like to commend the consortium and people involved in delivering the programme on the students and graduates of the programme who we have met and who are excellent ambassadors for the programme.

- There is evidence of awareness among teaching, technical staff in the HEIs and staff in industry of the various learning needs of students on the programme, with students feeling generally well supported in their work settings.

- Good evidence of collaboration (both formal and informal) between TU Dublin, SETU, MTU and enterprise in which WBL comprises a significant and valuable component of the programme delivery model.

- Good stakeholder engagement has been used and achieved in preparation for the Programme Review.

- There is strong alignment with the TU Dublin Strategic Plan, particularly the "Partnership" pillar and the University Education Model (UEM).

- There is good evidence of diversity in the recruited student intake with various access routes.

- Very well provisioned and maintained laboratory facilities with modern equipment for students studying on the programme.

Section F: Actions Required in Advance of Reconvened Panel

The primary rationale behind the requested actions summarised below is to supply the panel with sufficiently detailed information for consideration with regards to meeting the programme review criteria as outlined in *Appendix 3*, with reference to the requirements of the *TU Dublin Programme Review Policy* and associated *Programme Self-Evaluation Report (PSER)*. The panel also views its request for their submission of greater detail regarding aspects of the programme documentation, management and operationalisation of this within the consortium as essential to providing a framework for ensuring the parity and maintenance of academic standards and student experiences, both within TU Dublin and between HEI consortium partners. This is of particular relevance given the stated intention by academic and industry stakeholders to grow the numbers of students on the programme, and possibly to expand the consortium to include additional HEI provider partners. Panel meetings with industry partners also confirmed the need for consortium partners to achieve a level of consistency across all

academic providers in ensuring that the students can achieve the stated learning outcomes as specified in the programme documentation.

Each of these actions sets as outlined below consists of a comment, required action and documentation to be updated and resubmitted. It is important in the updating of this documentation that the programme leadership and team ensure that there is alignment across all documents, including PSER, programme module and programme documents (Akari-PMC), Student Handbook, Work Based Learning Handbook and other documents as deemed appropriate.

The panel strongly encourages that TU Dublin School of Chemical and BioPharmaceutical Sciences responsible for these programmes consults with all consortium partners when addressing the actions below. The panel further suggests that the three partner HEIs closely collaborate to share best practice across all HEIs in addressing these actions.

Action Set 1: SWOT Analysis

Comment:

The TU Dublin Review Policy PSER *Report Template to be considered in Conjunction with Programme Review Procedures (p. 2)* requirements are that "...*While Section 1 of the report is factual, the subsequent sections are reflective and should be based on the outcomes of a SWOT analysis*." The PSER as submitted for review briefly references a SWOT Analysis in the heading of Section 9, however, the document lacks evidence of a structured SWOT (or equivalent) analysis in relation to the programmes under review. Unfortunately, no adequate additional information regarding this requirement was gleaned during stakeholder meetings. While there is a lot of information contained within the PSER, there is a need for more comprehensive, critical analysis of this information as a foundation for further enhancement of the programmes. Furthermore, there is a need for the PSER to demonstrate more clearly how all analysis completed has informed the changes proposed in this programme review. There is also a lack of clarity about how the analyses will be used to enhance the management and operationalisation of the programmes within the consortium.

Action:

The panel requests that the PSER be updated to include a critical analysis of, and reflection on, the data reported in the first submission of the PSER. The findings of these analyses and reflections should inform a SWOT analysis of the programmes. This SWOT analysis must include both the content, as well as the operational aspects of the programme within the broader consortium. This SWOT analysis should be used to formulate a strategic plan for the programmes and their implementation within the consortium. This SWOT analysis may also be used to inform the actions as requested below, where relevant.

Documentation to be updated and resubmitted:

PSER. This should include two tables One outlining the findings of the SWOT analysis. The other table should present the proposed short-, medium- and long-term actions for the School to address the findings of the SWOT analysis.

Reply: The SWOT analysis in the required two table format has been added to the PSER page 59

Action Set 2: Student Data

Comment:

The panel recognises that there is a significant amount of both quantitative and qualitative data included in both the body and appendices of the PSER. That this is not accompanied by an analysis of the data and a reflection on the findings makes it challenging for the panel to interpret this information. This is particularly relevant, given that the reflection on the findings will be informed by the insights of both the TU Dublin programme leadership and those of consortium partners, which are necessary to inform any plans for programme enhancements. This reflection should include an acknowledgement of any concerns about student performance and how these were addressed through the programme review process or how they form part of the strategic plan for the programme.

Action:

The panel asks that an analysis of student performance, progression and completion data be undertaken, acknowledging any concerns, and other impressions, regarding student performance, progression and completion. How these concerns were addressed in the Programme Review process should be communicated in the PSER. This analysis and reflection on performance should be undertaken both intra-institutionally and inter-institutionally.

High level table with award classification ie. Simple table with grades Distinction, 2.1, 2.2 constant from 3 institutions

Reply: completed. Added to PSER document as appendix 5

Documentation to be updated and resubmitted:

PSER

Reply: The Student Data analysis in the required format has been added to the PSER as additional document. Refer to appendix 6

Action Set 3: Programme Documentation

Overview:

The panel has identified a number of areas for further development with regard to the module and programme documentation. The Programme Learning Outcomes (PLOs) must be formulated to demonstrate alignment with the National Framework of Qualifications Grid Level Indicators for Level 6 and Level 7 programmes. The PLOs should also demonstrate alignment between the programmes (as outlined below). The Module Learning Outcomes (MLOs) should demonstrate alignment with both the PLOs and the indicative syllabus and assessment of each module descriptor, as outlined below. Furthermore, the syllabus and assessment strategy as outlined in the module descriptors must provide sufficient information to enable students to demonstrate the meeting of clearly identifiable MLOs and PLOs.

Action:

The panel asks that the programme team reviews all the module descriptors with a view to ensuring the following:

(a) Constructive Alignment

- It is expected that constructive alignment is demonstrated with regards to the indicative syllabus, assessments and MLOs. Each module descriptor must be sufficiently detailed in all relevant areas to demonstrate this alignment.

- MLOs must be mapped to specific assessments, as currently most MLOs are specified as being aligned with all module assessments for most of the modules.

Reply: (a) The constructive alignment as requested above has been completed and the modules updated on Akari.

(b) Learning Outcomes

- MLOs must all be written using appropriate terminology for learning outcomes. *The panel acknowledges that there are already some MLOs and PLOs that are written in the appropriate format. The action here is associated with addressing those that are not written in the appropriate format.*

- There must be a sufficient number of MLOs to capture the learning associated with the indicative syllabus.

- The MLOs are expected be written to also reflect the practical components of many of the modules, where these practical components exist.

- Care should be taken not to duplicate MLOs across two or more modules. Each module should have a distinct set of MLOs.

- Some of the PLOs of TU055 and TU093 must be sufficiently aligned to reflect that the TU055 programme is the same as the first two stages of the TU093 programme.

- The TU093 (a Level 7 programme) PLOs must demonstrate the additional learning expected when compared to the TU055 PLOs, which is a Level 6 programme.

Reply: (b) The Module Learning Outcomes (MLOs) and Programme Learning Outcomes (PLOs) as requested above has been completed and the modules and programmes updated on Akari

NFQ Grid Level Indicators

- It is expected that the MLOs and PLOs are of a level appropriate to Level 6 and/or Level 7 programmes, as per the National Framework of Qualifications Grid Level Indicators (NFQ Grid Level Indicators).

Reply: (c) The NFQ Grid Level Indicators were used to update the Module Learning Outcomes (MLOs) and Programme Learning Outcomes (PLOs) as requested above, and the modules and programmes updated on Akari

(c) Assessments

- The Assessment Description fields must include sufficient information to clearly communicate necessary detail to allow for consistent and comparable assessment of modules, and associated maintenance of assessment standards from one year of delivery to the next, and across consortium partners.

- The Assessment Description must also capture the alignment of the individual assessments with the indicative syllabus and MLOs.

- The Assessment methods should be appropriate to the MLOs. Where there are clearly practical MLOs, there should be a suitable practical assessment component in the module(s).

- The Assessment should allow the learner to demonstrate their learning and therefore should offer more choice in questions available in final exams.

- The Coursework Assessments or Continuous Assessments should offer more choice in keeping in with UEM and Universal Design for Learning in offering learners multiple means of expression.

- Constructive feedback should be provided in a timely manner to allow feedforward to subsequent assessments.

Reply: (d) The Assessment Description fields were expanded to demonstrate the individual assessment alignment with indicative syllabus and MLOs. Constructive

feedback is provided to the learner in a timely manner with regular interactions between the module lectures and the learners.

(d) Indicative Syllabus

- The Indicative Syllabus field should be sufficiently detailed to reflect the required learning in each module.
- Care should be taken not to duplicate content in this section across two or more modules.
- Sufficiency of detail in this section will also facilitate comparability of content delivery from one year of delivery to the next, as well as across partner HEIs.
- The indicative syllabus must be aligned with both the assessment description and MLOs.

Reply: (d) The indicative Syllabus field has been expanded with a detailed module description included for each module on Akari. This has been replicated for each module in the workplace-based learning handbook.

(e) Learning and Teaching Methods

- These are currently specified in an identical manner across (almost) all module descriptors. These should be revised to reflect the most appropriate and intended learning methods. For example, if there is laboratory work, then this needs to be specified.
- If "technology-enabled" is listed as a Learning and Teaching Method, then examples of how/what technology is to be used must be included.

Reply: (f) The Learning and Teaching Delivery Methods are shown for all three academic providers (TU Dublin, SETU & MTU) in the table added to the PSER page 42. The table descripts the delivery method whether face-to-face lectures online technology enhanced delivery of lecture material, face-to-face laboratory practicals or computer studies practicals and tutorials.

For further guidance and support regarding the above, please refer to the resources available to you via the TU Dublin Learning, Teaching & Assessment unit (LTA Resources). These are a useful reference tool when using/updating module and programme documentation. For information specific to WBL, see *An Introduction to Work Based Learning: A Physical Sciences Practice Guide*.

Documentation to be updated and resubmitted:

- Programme Learning Outcomes (PLOs) (submitted as part of a revised submission of each of the TU055 and TU093 programme documents.

Reply: Completed.

- Module descriptors for all modules.

Reply: Completed.

Please also refer to Action Set 4 below for specific comments regarding the WBL modules.

Action Set 4: Work Based Learning (WBL)

General Comment:

The panel recognises the considerable effort and workload associated with supporting students during their WBL modules, as well as the dedication of programme staff and leadership in assuming these responsibilities. The panel has identified four areas for further development with regards to the WBL component of the programmes. These should be considered in conjunction with the requirements as specified under Action Set 3.

(a) WBL Module Descriptors

Comment:

The five WBL module descriptors are near-identical with reference to their MLOs and assessments. Furthermore, none of the module descriptors contain an indicative syllabus, or core set of skills expected from students undertaking each of these modules. Their relationship to the other modules within each of the programme stages is also not clear, though we understood from the panel-stakeholder meetings that they are intended to reinforce the learnings from non-WBL modules in the same semester. This absence of clarity regarding content and interconnectivity means that it is not possible to map the students' work based learning journey, including expected scaffolding of learning, increased development of knowledge and application of skills across the two (TU055) or three (TU093) stages of the programme.

Actions:

All five WBL module descriptors must be revisited to:

- Review and revise the MLOs in each module to evidence the expected learning in each module, and progression of learning as a student progresses from one module to the next. This should evidence a structured learning pathway for students as they progress through these modules.

Reply: Completed on the Akari system and in the revised Workplace-Based Learning Handbook.

- Include a more detailed description of each assessment. The assessments should be described in such a way as to demonstrate a structured assessment of learning across all modules, while demonstrating increasing learning as the student progresses through the WBL modules.

Reply: Completed on the Akari system and in the revised Workplace-Based Learning Handbook.

- The indicative syllabus should be recorded as a guideline of the knowledge, core skills and competences that a student must evidence achievement of to pass the WBL modules.

Reply: Completed on the Akari system and in the revised Workplace-Based Learning Handbook.

- The indicative core skills should align with the Practical Skills Evaluation assessment(s).

Reply: Completed on the Akari system and in the revised Workplace-Based Learning Handbook.

- It is advised that the indicative syllabus and MLOs should reflect alignment with other modules at the same stage of study as the module.

Reply: Completed on the Akari system and in the revised Workplace-Based Learning Handbook.

- The redesign of these modules must follow the principles of constructive alignment, whereby there is alignment between the MLOs, syllabus and assessment.

Reply: Completed on the Akari system and in the revised Workplace-Based Learning Handbook.

- For case study examples, see https://www.advance-he.ac.uk/knowledge-hub/introduction-work-based-learning.

(b) WBL Assessment – Additional Documentation

Comment:

The panel recognises that the programme chair/work placement co-ordinators have a system in place to support student learning and progression of knowledge and skills and invest a significant amount of time in this support and monitoring. However, there does not seem to be a documented knowledge management process for the monitoring systems adopted to ensure transparency and consistency, both within and across consortium HEIs with regards to work based learning. There also seems to be a lack of

clarity about roles and responsibilities of academic and enterprise in relation to undertaking assessment of students.

Actions:

The panel requests submission of the following information to ensure parity of student experience, but also to facilitate the maintenance of standard of assessment within and across HEIs:

- Assessment guidelines and rubric for each of the WBL module assessments.

Reply: Completed, guidelines included in the revised Workplace-Based Learning Handbook.

- Assessment guidelines for mentors/supervisors assessing students, including a clear specification of roles and responsibilities with regards to each assessment type within a module descriptor.

Reply: Completed, guidelines included in the revised Workplace-Based Learning Handbook.

- Process for monitoring of student assessments across all WBL modules. *It is important that this is written in such a way that it does not rely on knowledge of habitual practice to understand the processes involved*.

Reply: Completed. *Monitored by weekly submissions of the journal, write up and presentation.*

- Other information as relevant to ensuring that there is a consistent approach and standard both intra- and inter-institutionally.

Reply: Completed, process being standardised across institutions based on information gathered over the last number of years running the module WBL.

- In designing the WBL Assessments take into consideration the workload associated with this module and the recommended 100hrs of learning per 5ECTS credits.

Reply: Completed, there is a minimum requirement of 16 hours of physical activity carrying out each project within the company. Most projects far exceed this as each project should be of benefit to the company therefore tasks can be reasonably detailed. Only the project physical contact hours need to be performed on company time. The other elements are on the laboratory apprentices time, these tasks include but are not limited to, weekly WBPL catch-up session with the academic supervisor, research into the project, weekly journal entries, final write-up, final presentation preparation and delivery coupled with the face-to-face mentor meetings to enable the Mentor &/or company supervisor to complete the project assessment questionnaire. All these aspects ensure that the commitment from the laboratory apprentice is monitored throughout each project.

The assessments across the WBL modules should also evidence progression of student learning across the modules. This reference contains guidelines as to how this can be achieved: An Introduction to Work Based Learning: A Physical Sciences Practice Guide (linked here).

(c) WBL Mentoring

Comment:

The panel recognises that there is a mentoring system in place which is delivered by Irish Business and Employers' Confederation (IBEC). However, no information about the details (content, duration) of this mentoring system and its relationship to the WBL modules were supplied. Furthermore, there seems to be an inconsistency in expectations regarding the frequency and type of feedback to be expected, as well as how this is documented to evidence progression of student learning during their WBL.

Action:

The panel requests further information regarding the following aspects of the mentoring system be submitted:

- Summary of overview of the content of mentoring programme and its alignment to the programme.

Reply: Completed, mentoring training slides attached as appendix 7 to the PSER.

Where such information is not supplied in the afore-mentioned overview, the following must be submitted:

- Mentor criteria. *For example, is there is a minimum period of experience in the industry, and/or qualifications, as a requirement to be nominated as a mentor?*

Reply: Completed, added to PSER as appendix 7 and Workplace-Based Learning Handbook.

- Roles and responsibilities of the following: student; mentor; placement supervisor; academic supervisor. This should include a clear definition of each role in supporting students during their WBL modules.

Reply: Completed, added to PSER as appendix 7 and Workplace-Based Learning Handbook.

Clarity of mentoring and supervision expectations across all WBL modules. *For example, does the supervisor/mentor change for each module, or is there an attempt to keep the same mentor/supervisor insofar as is feasible and practicable?*

Reply: Within reason, the Mentor does not change for the duration of the laboratory programme. Most laboratory apparencies will remain with the same Mentor for their full

2 or 3 years on the programme. However, their company supervisor could change as they move between departments or laboratory groups in the company. It is hoped that the Mentor will remain the same throughout, though this may not always be possible. Therefore, Mentor training is run a number of times a year and there is a backup recorded session in case a Mentor needs to be replaced at short notice. New mentors can always link in with the Ibec representative or the Academic Programme Coordinator if they have specific questions.

- Desired frequency and duration of mentor-mentee meetings.

Reply: The recommended frequency and duration of mentor-mentee meetings is 1 hour per week. Please refer to mentor-mentee agreement included in the PSER as appendix 8 and Workplace-Based Learning Handbook.

- Protocol for recording of an overview of, for example, issues discussed, actions identified, actions closed off since previous mentor-student meeting. *For example, do the students keep a log of the meetings that they fill in with the afore-mentioned information and submit as evidence of their progression of learning, or use as the basis of one of their reflective assignments?*

Reply: A proposed template for the Mentor to document the overview of each mentor-mentee meeting has been included in the PSER as appendix 9 and the Workplace-Based Learning Handbook. In line with GDPR policies, it is recommended that these documents remain within the company. They could be accessed by the laboratory apprentice supervisor or company HR if required. It is envisaged that issues discussed in these meetings could contain company specific information that should not be shared with the academic providers.

- Relationship between mentoring and WBL module assessment/progression.

Reply: Workplace Based learning handbook will provide details of the apprentices expected academic progression across the semesters.

- As well as the IBEC Mentoring Training it would be advantageous for Industry employees to have a CPD in Mentoring Practice with QQI level 6 award to advance them in their careers and to ensure a standardised set of methodologies and expectations for mentors working with students on the TU055 and TU093 programmes. Details can be obtained by emailing: skillstoadvance@msletb.ie (This is a recommendation for consideration by the School but is not a requirement for updated documentation submission for the purposes of the Interim Report).

Reply: This suggestion has been included in the mentoring bullet point by Ibec.

Documentation to be updated and resubmitted:

Mentoring guidelines: this should be referenced in the PSER, with the details as above submitted as part of the WBL Handbook, which should include a distinct section on student mentoring.

Reply: Completed, added to PSER and Workplace-Based Learning Handbook. This mentoring agreement aims to set clear expectations, define meeting schedules, lay out the desired goals, establish confidentiality protocols and create communication channels for both the mentor and mentee.

(d) WBL Handbook

Following on from (c) above, a WBL Handbook should be agreed across all consortium HEIs and must include information related to:

Roles and responsibilities

- The roles and responsibilities of the student, supervisor/mentor and HEI WBL academic mentor must be clearly defined.

Reply: Completed, included as part of the mentor training in the PSER as appendix 7 and Workplace-Based Learning Handbook.

- This must include responsibility for the approval of suitable WBL project(s) (in advance of project commencement), as well as responsibility for assessment correction and awarding of marks.

Reply: Each laboratory apprentice must send an email explaining what they are going to take on as the project ahead of commencing their Workplace-Based Learning project. Alternatively, the laboratory apprentice can have a Teams meeting with their academic supervisor to discuss the proposed project.

- Mentoring Agreement Signed by both the Mentor and Mentee.

Reply: Completed, included as part of the mentor training in the PSER as appendix 8 and Workplace-Based Learning Handbook.

Mentor-mentee meetings –

- The recommended frequency and format of formal mentor-mentee meetings should be recorded.

- How the students should capture and be able to evidence the outcome of these meetings must also be described.

- Other relevant information, as deemed appropriate.

Reply: Completed, included as part of the mentor training in the PSER as appendix 9 and Workplace-Based Learning Handbook.

There must be alignment of the above with the information provided to the mentors during their mentorship training. The following templates should also be provided:

- Templates for reporting of work experience by the apprentice student.
- Templates for reporting of feedback by the mentor.

Reply: Completed, the format for the uploaded weekly journal entries and the rubrics for analysis of the final project write-up and presentation are included in the Workplace-Based Learning Handbook.

Laboratory apprentices have access to their workplace based academic supervisor online in a preset weekly timeslot. They can request one-to-one slots where they can obtain individual verbal feedback.

Assessments

- Detailed assessment guidelines, incl. marking scheme and rubric, must be made available for each assessment type adopted in WBL modules.

Reply: Completed, the format for the uploaded weekly journal entries and the rubrics for analysis of the final project write-up and presentation are included in the Workplace-Based Learning Handbook.

- Frequency and format of meetings (what needs to be covered in mentor-student meetings, how are decisions recorded?).

Reply: Completed, Frequency and format of meetings/proposed template for the Mentor to document the overview of each mentor-mentee meeting has been included in the PSER as appendix 7 and Workplace-Based Learning Handbook.

Documentation to be updated and resubmitted (capturing all actions as outlined above):

(1) PSER (Section 5 and elsewhere as relevant)

Reply: Completed

Module descriptors: Work Based Learning 2-5 module descriptors

Reply: Completed on Akari and in the Workplace-Based Learning Handbook.

WBL handbook

Reply: Completed, the Workplace-Based Learning Handbook has been updated to include the requested material.

Action Set 5: Non-Standard Entry using Recognition of Prior Learning (RPL)

Comment:

The documentation submitted does not evidence a defined process, procedures and associated criteria used to assess the suitability of students who wish to access these programmes through non-standard entry routes. There is also no description of the decision-making process related to eligibility of a potential student for the Level 6 (TU055) or Level 7 (TU093) programme. Panel-stakeholder meetings during the Programme Review event further evidenced significant variations in approach to non-standard entry (non-documented) procedures and decision-making, including responsibility for such decisions. This deficit of an agreed, documented and approach to RPL-based, or other means of, non-standard entry into the programmes and associated criteria is compounded by a lack of clarity of decision-making roles and responsibilities in this regard.

Equitable assessment of potential students through a defined RPL process, or other criteria, is not evident from the documentation and panel-stakeholder meetings. This lack of clarity of access routes into the programmes via non-standard entry routes is a significant concern of the panel and must be addressed to ensure equality and inclusion of all potential students in the selection process. Non-standard entry criteria should also specify whether a Leaving Certificate (or equivalent from another jurisdiction) is required as a minimum requirement, or whether a Junior Certificate (or equivalent from another jurisdiction) is sufficient in addition to other requirements being met. Whether a minimum age applies for applicants must also be specified. For example, for craft apprenticeship programme access, the following may apply:

> To be eligible for an apprenticeship, you must be at least 16 years of age and have a minimum of grade D in 5 subjects in the Junior Cycle or equivalent exam. However, higher educational qualifications and other requirements may be required by employers.
>
> If you don't have these qualifications, you may still register as an apprentice with an employer if you:
>
> Complete an approved preparatory training course followed by an assessment interview.
>
> Are over 18 years of age and have at least 3 years of relevant work experience, in which case you will also be asked to do an assessment interview.

English language needed. What is on the TU Dublin website

Non-Standard Entry as per the CAO requirements should be specified in terms of:

- For fulltime education Non-Standard Entry through the CAO falls under the categories below:

- International Students
- GCW/GCSE
- Other School Leaving Exams
- NCVA Level 2/3 (pre-2002)
- Further Education (other than FETAC Level 5/6 and NCVA Level 2/3)
- Disability/Specific Learning

The use of RPL may also be a factor with regards to progression of students within the programme, if the decision is made by the consortium group to permit RPL for module exemption purposes. If it is the decision of the consortium group to use RPL to exempt students from some of the modules, then the process outlining the student application process for such must be included in the Student Handbook.

Action:

The panel requests the submission of an agreed and documented set of RPL processes and procedures applicable to non-standardised entry into the programmes to ensure that there is a fair and transparent mechanism for entry into the programmes. Framed within the provisions of the TU Dublin RPL Policy, this must allow for the rigorous evaluation of prior learning and the identification of student needs prior to entry into the programme(s). The following must be included in an RPL procedure document to be agreed and be applicable across the consortium:

- Whether RPL will be applied only for entry into the programme, or whether it can also be applied to gain exemption from modules in the programmes.
- Core criteria for acceptance onto the programme.
- RPL application process: e.g., a process flow chart and information to be submitted by a potential student to recognise formal, informal and non-formal learning.
- Assessment process with regards to documentation submitted, as mapped against the core criteria.
- Interview criteria (if applicable).
- Documentation of the RPL assessment process and outcome.
- Relevant retention schedule in line with GDPR and university data retention policy.
- Defined roles and responsibilities within the consortium regarding non-standard entry decision-making and retention of data related to such decisions.

- Prioritisation of applications / candidates in the event of over-subscription to the programme(s), including agreed methodology for the allocation of places where there are more applicants than places available on the programme.

- Other relevant information as deemed necessary by consortium partners.

The panel recommends consulting the RPL resource available at this link regarding RPL best practice in the Irish HE sector: https://www.priorlearning.ie, in particular the *RPL for Enterprise booklet* (a collaboration between MTU and Boston Scientific) available under the Resources and Tools tab of the afore-mentioned website.

Reply: Completed, using the TU Dublin policy document listed below:
Academic Quality Framework Recognition of Prior Learning Policy Approved by Academic Council 22 June 2022
https://www.tudublin.ie/media/website/explore/about-the-university/academic-affairs/documents/Recognition-of-Prior-Learning-Policy-V1.pdf

Documentation to be updated and resubmitted:

(1) PSER (Section 3 – Access, Transfer and Progression). This can include reference to documentation (e.g. details of the RPL process to be followed) as an Appendix to this document, or as a separate document.

Reply: Completed, using the TU Dublin policy document listed below:
Academic Quality Framework Recognition of Prior Learning Policy Approved by Academic Council 22 June 2022
https://www.tudublin.ie/media/website/explore/about-the-university/academic-affairs/documents/Recognition-of-Prior-Learning-Policy-V1.pdf

(2) TU055 and TU093 programme documents in Akari-PMC, specifically the following sections:

Programme Information – Non-Standard Entry Requirements and Procedures for Non-Standard Applications.

Reply: Completed, using the TU Dublin policy document listed below:
Academic Quality Framework Recognition of Prior Learning Policy Approved by Academic Council 22 June 2022
https://www.tudublin.ie/media/website/explore/about-the-university/academic-affairs/documents/Recognition-of-Prior-Learning-Policy-V1.pdf

Entry requirements Laboratory Technician and Laboratory Analyst as stated on the Laboratory Apprenticeship Website as follows:

- Pass (grade 06 or better) in five leaving certificate subjects, two of which must be maths and a science-based subject or equivalent if applying as an international student

- 250 CAO points or equivalent if applying as an international student
  OR
- Relevant FETAC Level 5 or 6 graduate or equivalent if applying as an international student
- Current employee with relevant experience and qualifications
- Career changers - If over 23 years of age, the requirements laid out above do not apply
  Furthermore
- International students will need to complete an english requirement assessment
- An industry interview will be required
- SOLAS apprentice approval will be required
- Candidates must secure a role with one of our sponsoring companies before being accepted onto the programme
- You may be deemed overqualified for the programme if you hold a degree or higher award in a science-based subject achieved in the last five years.

Action Set 6: Promotion of Laboratory Health and Safety

Comment:

While the panel was impressed by the laboratory facilities available to train students of the programmes under review, the panel is concerned at the apparent lack of signage in the laboratories, including the lack of clearly identifiable health and safety information, including with regards to wearing of PPE and the location of first aid stations. This is included in this Interim Report due to the panel's concern at the urgency with which this must be addressed for TU Dublin to meet their duty-of-care to both students and staff in the laboratories used to deliver the programmes under review. This signage will also serve the purpose of reminding students of the importance of good health and safety practices when using laboratory rooms and equipment. It is necessary to ensure that these are visible to all in the laboratory to enhance awareness and practices relating to health and safety in laboratory and hazardous environments. Signage should be Universal and not contain text (text should only be on supplemental signage).

The panel commends the staff and apprentices on their efforts to be more sustainably aware in reducing the used of Single Use Plastics/Items but suggests that more could be done on reducing energy consumption especially when labs are not in use.

Action:

Submission of the School Safety Statement.

Provide additional signage reminding students of the general regulations for safe laboratory usage including and not limited to:

- Wearing of personal protective equipment (PPE)

Reply: Safety signs were already available on the outside all lab doors were the apprentices have classes and new provisory signage is in place inside the apprenticeship lab as per actions raised; extra permanent signage is being ordered to be placed inside all the labs as per action raised.

- Personal behaviours, attitudinal and physical

Reply: New provisory signage is in place inside the apprenticeship lab as per actions raised; extra permanent signage is being ordered to be placed inside all the labs as per action raised. All our students start the year with a safety talk and before each lab they will have a safety talk about the practical in the day - this is in their lab manual.

- Consumption of food and beverages

Reply: Safety signs were already available on the outside all lab doors were the apprentices have classes and new provisory signage is in place inside the apprenticeship lab as per actions raised; extra permanent signage is being ordered to be placed inside all the labs as per action raised.

- Principal health risks

Reply: New provisory signage is in place inside the apprenticeship lab as per actions raised; extra permanent signage is being ordered to be placed inside all the labs as per action raised.

All our students start the year with a safety talk and before each lab they will have a safety talk about the practical in the day - this is in their lab manual.

If chemicals/biologicals are in use in the lab, if they pose a danger to the health they will be used in the fumehood/Weigh safe/Laminar air flow safety cabinet and are all properly labelled with principal health risks.

- Location of standard operating procedures.

Reply: Our standard procedures are available in the Chemistry and Biology Tech offices and are available to the lectures and students when required for the practical.

Any more complex equipment that is used by the students should have an SOP beside, such as spectrophometers and Karl Fisher. Complex Analytical equipment is switch on and off by the Technical Officer responsible for the practical, such as GC's and HPLC's for example. The lab manual works is the students SOP as its describes the procedure of each lab practical.

- General housekeeping rules

Reply: New provisory signage is in place inside the apprenticeship lab as per actions raised; extra permanent signage is being ordered to be placed inside all the labs as per action raised. All our students start the year with a safety talk and before each lab they will have a safety talk about the practical in the day - this is in their lab manual.

- Install motion sensers to switch on overhead lights at work stations.

Reply: This action has been forward to building services.

- Good practice to switch off equipment when not in use, LCD displays still use power when equipment is not in use.

Reply: All equipment and LCDs are switched off when not in use when possible, as per our sustainability goals.

Some equipment runs over night, for example other scientific equipment such as Mass Spectrometers must be ON constantly when in use; to swich them back ON, they can take at least a week to build up vacuum to be able to operate.

The apprenticeship lab 127 is the first lab in TU Dublin to receive the Green Classification Certification from Green Labs; however both all our labs in chemistry and in biology in Tallaght campus have Platinum classification which is the second highest after green. I believe that all the labs in our school including our City campus labs have this classification.

- Provision of a first aid station in every laboratory with first aid provisions.

Reply: All labs have already first aid stations in place, they've always had. These are always replenished and are verified on a monthly basis. A few of the Technical staff on Campus are First Aiders and a Nurse is available on Campus. All the labs have safety showers or/and eye washing stations.

The apprenticeship lab has a big first aid station at the entrance of the lab. The apprenticeship lab has 2 eye stations, one specifically for chemicals (acid/base) next to fumehood and a general one at the other end of the lab. These are in place since lab was open for the students.

Section G: Documentation (Re)Submission

All updated programme information must be submitted to Linda Moore/Academic Affairs via John Behan, TU Dublin Head of Chemical and BioPharmaceutical Sciences (information should not be sent directly to Academic Affairs by stakeholders associated with some of the actions below). The documentation will then be distributed by Academic Affairs to the Chair and other panel members.

Appendix 1: TU Dublin Programme Review Panel

Chairperson and internal panel member	Ger Reilly	Head of Apprenticeships and Further Education, TU Dublin
External panel member	Michael Anderson	General Manager, Carl Stuart Limited *Had to withdraw from the programme review event at the last minute (night before the event) due to unforeseen circumstances, but will be invited to re-engage with the programme review process*
External panel member	Dr. Arjan van Rossum	Head of Department of Life & Health Sciences, School of Health & Science, Dundalk Institute of Technology
External panel member	Dr. Noreen Morris	Lecturer, Department Pharmaceutical Sciences and Biotechnology, Faculty of Science and Health, Technological University of the Shannon
Internal panel member	Jennifer Byrne	Lecturer in Construction, School of Architecture, Building & Environment, Faculty of Engineering & Built Environment, TU Dublin
Academic Affairs Representative	Dr. Linda Moore	Quality Framework Team, Academic Affairs, TU Dublin, Ireland

Appendix 2: TU055/TU093 Programme Review Schedule

TU055 Higher Certificate in Science in Laboratory Technician Studies **TU093 Bachelor of Science in Laboratory Analyst Studies** **Programmatic Review Schedule** **Tuesday 18th June (on-site) & Thursday 20th June (online)**

Programmatic Review Day #1 **Tuesday 18th June** **09:00-17:00**

TU Dublin Tallaght Campus Board Room, Main Building		
Time	**Description**	**In attendance**
09:00 - 10:30	Panel Refreshments, Introductions & Preliminary Meeting	Panel only (*as listed in the table of panel members at the end of this schedule*)
10:30 - 11:30	Presentation and meeting with programme leadership team (TU Dublin staff only)	Head of School Head of Discipline Programme Co-ordinator(s) Year Tutors (TU Dublin staff only)
11:30 – 12:00	Tour of TU Dublin Facilities	TU Dublin programme management, lecturing or technical staff as nominated by the TU Dublin School of Chemical & BioPharmaceutical Sciences.
12:00 - 12:15	Panel Comfort Break	Panel only
12:15 – 13:30	Panel Meeting & Lunch	Panel only
13:30 - 14:30	Meeting with consortium partner programme leadership representatives, including other external stakeholders	1 representative from <u>each</u> of: TU Dublin SETU MTU IBEC SOLAS (*each representative must be directly involved in the delivery or management of the apprenticeship programme*)
14:30 – 15:00	Panel Comfort Break & Meeting	Panel only
15:00 - 16:00*	Meeting with staff responsible for module delivery and assessment *(Discussion of modules and syllabus, teaching and learning methods and assessment, QA at module level)* (TU Dublin staff only)	TU Dublin staff responsible for delivery & assessment of modules (module co-ordinators) (L. Clearly-Keogh, E. Caraher, L. Matthews, B. O'Hanrahan, L. Murad, L. Luu, A. Mulvey, J. Gavin, S. Currivan, L. Richards)

16:00 - 17:00	Panel Meeting & Preparation for Day 2	Panel only

Programmatic Review Day #2 **Thursday 20th June** **09:00-15:30** **Online in MS Teams** Join the meeting now Meeting ID: 365 780 422 924 Passcode: PLeVBx		
09:00 - 10:00	Panel meeting	Panel only
10:00 - 11:00	Meeting with staff responsible for module delivery and assessment (*Discussion of incl. modules and syllabus, teaching and learning methods and assessment, QA at module level*) (SETU & MTU staff only)	SETU & MTU staff responsible for delivery & assessment of modules (module co-ordinators) Minimum of 2 x SETU staff Minimum of 1 x MTU staff
11:00 - 11:15	Panel comfort break	Panel only
11:15 - 12:15	Meeting with Apprentice Employers	Minimum of 4 employers (2 x of these must be associated with the third year, i.e. TU093 apprentice employers) 1 x SOLAS representative
12:15 – 12:45	Meeting with past graduates of the TU055 & TU093 programmes	Minimum of 2 from TU Dublin Minimum of 2 from SETU
12:45 - 13:15	Meeting with current students of the TU055 & TU093 programmes	Minimum of 2 from TU Dublin Minimum of 2 from SETU Minimum of 1 from MTU
13:15-13:45	Panel lunch break	Panel only
13:45-14:45	Final panel meeting	Panel only
14:45-15:30	Final meeting with Programme leadership team to verbally report findings.	Head of School Head of Discipline Programme Co-ordinator

		Other staff as invited by the School of Chemical & BioPharmaceutical Sciences

Appendix 3: TU Dublin Programme Review Criteria

	Criterion No.	Description
Programme Review Process	1	Was the programme review conducted in accordance with the Programme Review Process, i.e. were current students, graduates, employers, other appropriate stakeholders involved in the review process?
Governance & Management	2	Do the Programme Management and Quality Assurance arrangements align to TU Dublin Quality Framework processes?
	3	Has the Annual Academic Quality Enhancement process been used to identify issues and actions that continually enhance the programme and student learning experience?
Student Data	4	On consideration of student recruitment data, is there evidence that there continues to be a market demand for the programme and that the programme remains viable?
	5	On consideration of student performance, progression and completion data, are there concerns about student performance and have these been acknowledged and addressed through the programme review process?
Award Standards	6	Are the programme aims and learning outcomes clearly written using appropriate terminology?
	7	Are the programme aims and learning outcomes aligned to the proposed level of the award on the NFQ in accordance with applicable Award Standards?
	8	Will the curricula, teaching, learning and assessment methods enable students to reach the appropriate standard to qualify for the award(s)?
	9	Is ongoing programme development appropriately informed by internal and external stakeholder input (including industry/practice, professional/regulatory bodies, and community organisations)?
	10	Does ongoing programme development take account of relevant external discipline benchmarks and Professional Statutory and Regulatory Body requirements?
	11	Is the programme design informed by current development in the discipline and associated subject areas, having taken into

Programme Design		consideration current trends, stakeholder feedback and market analysis?
	12	Is there a mechanism to ensure the input of external stakeholders in the ongoing development of the programme?
	13	Is the programme curriculum well-structured with a logical progression of learning and development across the modules and stages?
	14	Are there appropriate opportunities for students to undertake work-based learning, through work placements or work-based projects or assignments?
	15	Are work/practice placements appropriate and fit for purpose, having regard to the requirements of professional, regulatory, and associative bodies where applicable, in the context of student achievement of learning outcomes and in the overall student experience?
	16	Is the required programme and module information provided in the correct format?
Learning, Teaching & Assessment	17	Does the assessment strategy provide an appropriate mix of assessment types that will enable students to demonstrate that they have met the module and programme learning outcomes?
	18	Do the learning outcomes and assessment strategy ensure that academic integrity can be maintained and attempted breaches of academic integrity are minimised/easily detected?
	19	Are there opportunities in all modules to provide students with timely and constructive feedback on their learning and development?
	20	Do the teaching and assessment methods consider the diversity of the student cohort?
Student Supports & Learning Environment	21	Are there sufficient and appropriate resources (e.g. human, financial and physical) to support the proposed programme aims and objectives, to deliver the programme as specified?
	22	Are there sufficient staff that are appropriately qualified and capable to support the programme delivery?
	23	Are there appropriate arrangements in place to support the student experience and to monitor student performance?
	24	Are the access, transfer and progression arrangements clearly defined and appropriate, and aligned to TU Dublin policy/strategy in this regard?
	25	Do the student supports and learning environment cater for equality, diversity and inclusivity of students?

	26	Is the relevant programme information clearly communicated to the students to ensure they are informed, guided and cared for?