TU Dublin Programme Review

& ACSLM[1] Re-Accreditation Report

Master of Science in Clinical Laboratory Science (TU287)

Version of Report	*Author*	*Date*
1.0	Dr. L. Moore	22/04/2024

Approval	*Date*
Documentation for Review approved by Faculty Board	23/01/2024
Report of Programme Review Panel approved by AQAEC	Click or tap to enter a date.
New Programme Title approved by University Programmes Board (if applicable)	N/A

[1] Academy of Clinical Science & Laboratory Medicine (https://acslm.ie/)

Section A	Programme Details

Title	Master of Science in Clinical Laboratory Science (TU287)
NFQ Level	9
ECTS Credits	90
Mode of delivery	Part-time ✓ Full-time ☐
Duration	Part-time: 2y Full-time:
Modality/ies of delivery	In-person, On-campus ✓ Blended ✓
	Online ✓ Hyflex ☐
Classification of award	See Section B below
Discipline Programmes Board	Medical Science
Faculty Board	Faculty of Sciences & Health
Schools involved in delivery	School of Biological, Health & Sports Sciences
Delivery location	TU Dublin Grangegorman (City) Campus
Collaborative Partner (where applicable)	N/A
Date of Commencement of revised programme	September 2024

Section B	Awards

Award Title	Master of Science in Clinical Laboratory Science
NFQ Level	9
Award Class	Major
ECTS Credits	90
Classification of award	First Class Honours; Second Class Honours, First Division; Second Class Honours, Second Division; Pass
Award (1) Title	Postgraduate Certificate in Science in Clinical Laboratory Science

Exit/Embedded	Exit ☒ Embedded ☐
NNFQ Level	9
Award Class	Minor
ECTS Credits[2]	50
Classification of award	Unclassified

Section C - Programme Derogations (if required)

Derogations from Assessment Regulations/Marks and Standards, requiring approval by University Programmes Board	
This is a long-standing programme. TU Dublin (then DIT) governance structures as part of TU287 programme validation and reaccreditation in 2011 approved a pass mark of 50%, with a floor of 45%, for all modules in the TU287 programme (in line with other health and allied healthcare programmes). This was also approved at the time by the ACSLM Council. The application for a derogation for the reduction of the floor/threshold to 43% will be sought from the University Programmes Board after the review event, as the panel did not raise any objections to the lowering of this floor to 43%.	
University Programmes Board Approval	Date Pending

Section D Review Process

Date of Programme Review	Friday 19th April 2024

Context for Programme Review
How was the programme review process instigated, by whom/via which process?
This joint TU Dublin Programme Review – ACSLM Re-accreditation event was requested by the TU Dublin School of Biological, Health and Sports Science to align with the ACSLM review and accreditation cycle requirements. This review also served to accommodate proposed changes to the programme to facilitate updating of the programme in response to stakeholder feedback and market demand. Building on a previous successful joint review-re-accreditation process, it was agreed once again to undertake a joint TU Dublin Programme Review – ACSLM Re-accreditation event, in alignment with the TU Dublin's *Programme Review* policy. The protocol for the joint event was agreed by the ACSLM and TU Dublin (Academic Affairs & the School of Biological, Health & Sports Sciences). This was subsequently approved by the TU Dublin's AQAEC (30.01.2024 meeting), subject to two conditions. The first of these was that the ACSLM signatory to the joint proposal be signed by someone other than a nominated external panel member. This condition was satisfied through the resubmission of the signed form (06.02.2024) with a non-panel signatory. The second condition was that each panel member declare their association with the ACSLM (where relevant)

[2] The TU Dublin *University Framework and Nomenclature Policy* accommodates PG Certs of 30 ≤ and < 60 ECTS credits.

at the commencement of the review event. This condition was met during the first panel meeting on the day of the event.

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

Transitional arrangements
How will changes to revised programme be implemented, i.e. to be implemented with immediate effect in the next academic year of delivery or phased in on a year-by-year basis?
The new version of the TU287 programme will be phased in with effect from September 2024. The cohort commencing the programme in September 2024 will therefore be registered on the new version of the programme. The cohort in the second year of the programme in September 2024 (September 2023 intake cohort) will complete TU287 on the older version of the programme. The programme team will work with the TU Dublin's Curriculum Management Team (CMT) to ensure that the TU287 programme and module set-up in the Programme Module Catalogue (PMC) supports the phasing in of the programme as described above.

Panel Members

Panel Role	Name	Affiliation
Chair	Dr. Declan Allen	Head of Discipline: Logistics, Supply Chain and Project Management, School of Business Technology, Retail & Supply Chain, Faculty of Business, TU Dublin, Ireland
External panel member*	Assoc Prof Michael Freeley	School of Biotechnology, DCU, Ireland
External panel member*	Ms. Karen McGibney	National Virus Reference Laboratory, UCD, Ireland & ACSLM representative
External panel member*	Prof. Fernando D'Abreu Mendes	Coimbra Health School, Polytechnic University of Coimbra, Portugal & ACSLM representative
External panel member*	Dr. Irene Regan	Blackpool Victoria Hospital, UK & ACSLM representative
Internal panel member	Dr. Lavinia McLean	Head of Discipline: Early Childhood Education, School of Social Sciences, School of Law & Education, Faculty of Arts & Humanities, TU Dublin, Ireland
Academic Affairs Representative	Dr. Linda Moore	Academic Affairs representative, TU Dublin, Ireland

**All panel members were nominated and approved through TU Dublin processes and approval structures for external panel members for programme review panels.*

Section E	**Programme Evaluation**

Programme Review Process		
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 ☐
Comment: The documentation submitted by the School and the Programme Self-Evaluation Report (PSER) met the documentation requirements as specified by TU Dublin's *Programme Review* policy and associated checklist. The PSER provides strong evidence of engagement with a range of internal and external stakeholders relevant to the programme. This includes (but is not limited to), the professional accrediting body, the Academic of Clinical Science and Laboratory Medicine (ACSLM) and other stakeholders in both face-to-face and online formats.		

Governance & Management		
Does the programme align with the University's Strategic Plan and the principles of the University Education Model, and relevant policies?	Yes ✓	No ☐
Comment: The PSER contains comprehensive descriptions of the alignment of the programme with the: • Core elements of the TU Dublin's Strategic Plan's Strategic Pillars, • The main components and fundamentals of the TU Dublin's new and evolving University Education Model (UEM). • The new TU Dublin Graduate Attributes.		
Do the Programme Management and Quality Assurance arrangements align to TU Dublin Quality Framework processes?	Yes ✓	No ☐
Comment: The PSER provides a comprehensive description of the TU Dublin Quality Enhancement and Programme Management requirements as applied within the context of the TU287 programme. These were described in alignment with the TU Dublin's Quality Framework *Programme Review* policy and associated processes at the time of the review.		
Has the Annual Monitoring/Academic Quality Enhancement process been used to identify issues and actions that continually enhance the programme and student learning experience?	Yes ✓	No ☐
Comment: Annual Quality monitoring reports were submitted for the period of 3 years prior to this Programmatic Review. The issues identified in those reports were addressed during the programme review.		

Student Data		
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 ☐
Comment: The PSER, including findings from the stakeholder engagement event (April 2023), indicate that there is an ongoing demand from the Medical Science/Clinical Laboratory Science profession for this programme, particularly in its revised format with a greater emphasis on online delivery. The maximum capacity of student intake is 25 per intake. However, the PSER data has indicated that the peak number of students has been 21 (out of a possible 25 places) over the preceding 10-year period. More recently, the annual intake has reduced to 9 students/annum. The changes proposed to this programme have been made with a view to making the programme more competitive relative to other similar programmes on the island of Ireland. The panel encourages a proactive approach to programme promotion, incl. the launch of the revised programme to enhance awareness within the Medical Science profession of the revisions that have been made to the programme.		
On consideration of student engagement, performance and progression data, are students engaging with their programme and performing as expected? If not, has this been acknowledged and addressed through the programme review process?	Yes ✓	No ☐
Comment: There is a high rate (80%+) of student progression from Year 1 to Year 2 of the programme. The PSER clearly identifies delays related to the research project (E.g. delayed ethics approval) as the most likely barrier to progression of the programme on time. Most of these students have successfully completed the research project and programme the following year.		
On consideration of graduate destination data, is there evidence that students are securing employment in the field or progressing to further study in the discipline?	Yes ✓	No ☐
Comment: All students undertaking the programme are already employed in the field of Medical Science. The PSER presents some evidence of progression of students within their career structures upon successful completion of this programme of study, as the TU287 programme is one of the recognised qualifications for career progression within the HSE Medical Science career path.		

Awards Standards		
Are the programme aims and learning outcomes clearly written using appropriate terminology?	Yes ✓	No ☐
Comment: While the programme aims and learning outcomes are clearly written using appropriate terminology, the panel has made some recommendations regarding the revision of these. (Recommendations R3 & R5)		
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 ☐

Comment: While the programme aims and learning outcomes are aligned with the proposed level of award on the NFQ and associated award standards, the panel has made some recommendations regarding the revision of these. (Recommendations R3 & R5)		
Will the curricula, teaching, learning and assessment methods enable students to reach the appropriate standard to qualify for the award(s)?	Yes ✓	No ☐
Comment: The panel agrees that the curricula, teaching, learning and assessment methods enable students to reach the required and appropriate standards to qualify for the award and associated exit award. The emphasis on authentic, workplace-related, assessments in core modules further supports the conclusion that the assessments are appropriate to an NQF Level 9 award.		
Is ongoing programme development appropriately informed by internal and external stakeholder input (including industry/practice, professional/regulatory bodies, and community organisations)?	Yes ✓	No ☐
Comment: The review panel is satisfied that programme development informed by stakeholder engagement to date supports the continuation of these stakeholder relationships with regards to ongoing programme enhancement. The TU Dublin Medical Science Professional Advisory Committee provides an interactive forum to bring professional opinion and practice to inform the advancement of Medical Science evidence-based education and research at the School of Biological, Health & Sports Sciences. Terms of reference and meeting minutes of this committee were provided as part of the PSER.		
Does ongoing programme development take account of relevant external discipline benchmarks and Professional Statutory and Regulatory Body requirements?	Yes ✓	No ☐
Comment: There is strong evidence of alignment with discipline benchmarks and PRSB requirements. This is also evidenced by the nature of this programme review, which was undertaken as a joint TU Dublin programme review and ACSLM re-accreditation event.		

Programme Design		
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 ☐
Comment: Engagement with internal and external stakeholders, including industry and employers of graduates of this programme, as well as engagement with the ACSLM is strongly evident in the documentation submitted for this event, as well as the undertaking of this TU Dublin programme review even as a joint ACSLM re-accreditation event.		
Is there a mechanism to ensure the input of external stakeholders in the ongoing development of the programme?	Yes ✓	No ☐
Comment: The TU Dublin Medical Science Professional Advisory Committee provides an interactive forum to bring professional opinion and practice to inform the advancement of Medical Science evidence-based education and research at the School of Biological, Health & Sports Sciences. Terms of reference and meeting minutes of this committee were provided as part of the PSER.		
Is the programme curriculum well-structured with a logical progression of learning and development across the modules and stages?	Yes ✓	No ☐
Comment: The documentation submitted for the review event demonstrates clear evidence of a logical progression of learning and development of knowledge, skills and competences across the modules and stages of the programme.		
Are there appropriate opportunities for students to undertake work-based learning, through work placements or work-based projects or assignments?	Yes ✓	No ☐
Comment: While there is no specific work placement module/component within the TU287 programme structure, the panel recognises that the programme has been designed for those who are already working in a medical science/clinical laboratory science setting. Authentic assessments throughout the programme are highly relevant to typical Medical Science/Clinical Laboratory Science workplace settings. This culminates in the 40 ECTS credit Laboratory Research Project, which is a research project undertaken in the students' habitual workplace. This gives students direct experience of the management and delivery of a laboratory-based research project within the health service.		
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 ☐ N/A	No ☐
Comment: N/A There are no work placements included in the programme structure.		
Is the required programme and module information provided in the correct format?	Yes ✓	No ☐
Comment:		

The panel reviewed the documentation submitted as per the documentation requirements of the TU Dublin *Programme Review* policy and associated PSER checklist. The PSER submitted included all the relevant information as per the PSER checklist, as well as additional information relevant to the context, industry-liaison and teaching, learning and assessment practices related to the TU287 programme.

Learning, Teaching & Assessment		
Is there an effective student-centred learning and teaching strategy that aligns with the University's strategies and guidelines in this regard?	Yes ✓	No ☐
Comment: There is an effective student-centred learning and teaching strategy that aligns with the University's strategies and guidelines at the time of this review.		
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 ☐
Comment: There is an appropriate mix and range of assessment types. This includes a number of authentic, workplace-related, assessments embedded within core modules that are relevant to promoting the knowledge, skills and competence of those working in the Medical Science/Clinical Laboratory Science workplace domains.		
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 ☐
Comment: The PSER provides evidence that students are informed of academic integrity considerations both during their induction/orientation and assessment strategy documentation. The importance of academic integrity is also emphasised in the Student Handbook and the BIOL 9012 Laboratory Research Project Guidelines. The academic mentorship system in the programme can also serve to highlight any problems regarding the academic integrity of student work submissions. The use of work-based authentic assessments also mitigates against the potential negative influence of academic integrity.		
Is there a comprehensive mapping of assessment methods and module learning outcomes and between module learning outcomes and programme learning outcomes?	Yes ✓	No ☐
Comment: A comprehensive mapping of module learning outcomes to programme learning outcomes was submitted to the panel. The mapping of assessment methods to module learning outcomes is recorded in each module descriptor. The panel recommends further consideration of the mapping of assessments to module learning outcomes, within each module descriptor (Recommendations R5).		
Are there opportunities in all modules to provide students with timely and constructive feedback on their learning and development?	Yes ✓	No ☐
Comment:		

The BIOL 9012 Laboratory Research Project Guidelines document includes regular "Checkpoints" in the module assessment plan to facilitate and student feedback mechanisms on a regular basis throughout the period of the project. Meeting with the programme team evidenced the range of feedback mechanisms being adopted, both face-to-face and online through the VLE. However, the panel has made further recommendations regarding the enhancement of the student feedback mechanisms within the programme (Recommendations R6).		
Do the teaching and assessment methods consider the diversity of the student cohort?	Yes ✓	No ☐
Comment: The documentation provides evidence of the TU Dublin EDI initiatives. Members of the TU287 programme team have completed digital badges in Universal Design for Learning (UDL).		

Student Supports & Learning Environment		
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 ☐
Comment: The panel is satisfied that the TU Dublin has the resources to deliver the programme as proposed in the documentation supplied.		
Are there sufficient staff that are appropriately qualified and capable to support the programme delivery?	Yes ✓	No ☐
Comment: The programme team are established TU Dublin lecturers in the discipline areas of Medical Science and Biology. This includes a number of staff with CORU-registration with the statutorily-protected title of Medical Scientist. It is also evident that the academic staff delivering the programme have strong links to industry, with many also being research-active. However, the panel has made a recommendation regarding the support of guest lecturers in obtaining knowledge, skills and competence in relation to basic principles of teaching, learning and assessment practice, as well as digital literacy skills relevant to their participation in the delivery of the TU287 programme. (Recommendation R2)		
Are there appropriate arrangements in place to support the student experience and to monitor student performance?	Yes ✓	No ☐
Comment: Student support is comprehensively outlined in the Student Handbook. Meeting with the programme team also highlighted the role of academic mentors in supporting the students throughout the programme.		

Are the access, transfer and progression arrangements including RPL clearly defined and appropriate, and aligned to TU Dublin policy/strategy in this regard?	Yes ✓	No ☐
Comment: • While the entry requirements are clearly stated, they lack clarity regarding their alignment with the provisions of the TU Dublin's Recognition of Prior Learning Policy (Condition C7). • While the exit award is clearly stated in the programme document, the Student Handbook description of the role of the exit award within the programme requires amendment to align with the TU Dublin Exit Award Policy (Condition C3).		
Do the student supports and learning environment cater for equality, diversity and inclusivity of students?	Yes ✓	No ☐
Comment: The student supports to cater for equality, diversity and inclusivity of students are clearly outlined in the Student Handbook.		
Is the relevant programme information clearly communicated to the students to ensure they are informed, guided and cared for?	Yes ✓	No ☐
Comment: The Student Handbook is comprehensive regarding the programme requirements, teaching, learning and assessment plan. The VLE, Brightspace, is also used as a source of information and support of student learning and consolidation of knowledge. However, the panel have made additional recommendations regarding the enhancement of communication of information to students in relation to delivery and assessment timeframes (Recommendations R4 & R7).		

Collaborative Provision (if applicable) N/A		
Are the roles and responsibilities of each partner clearly defined?	Yes ☐	No ☐
Comment: N/A		
In the case of Joint or Multiple Awards, has due diligence on the capacity of the partner institution to meet the QA/QE requirements for the programme been undertaken?	Yes ☐	No ☐
Comment: N/A		

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 reviewed 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. The updated version of the programme cannot go forward to Faculty Board for consideration unless a response to the Review Report is submitted with revised programme documentation.	☒
4.	**Do not recommend continuing approval of programme.**	☐

Areas for Commendation	
1.	Documentation submitted is of a high quality.
2.	A good range of authentic assessment is used in the core programme modules.
3.	Dedicated and professional staff who are supportive of students and their learning.
4.	Incorporation of guest lecturer contributions throughout the programme supports strong industry links and currency of knowledge of both students and staff of the programme.
5.	High level of awareness of academic staff of the specialist and organisational environments relevant to work in Medical Science/Clinical Laboratory Science contexts, as well as the broader healthcare landscape.
6.	TU Dublin Medical Science Professional Advisory Committee to support and promote ongoing stakeholder engagement.
7.	Class representation via active class reps to provide a student voice to the ongoing delivery and development of the programme.

Conditions of Approval	
C1	*BIOL 9012 Laboratory Research Project* Due to the specialist nature of an MSc, the panel requests that the project be strongly aligned to the specialist module elective selected by a student. This will promote a greater specialist component within the programme, compensating for the reduction in specialist clinical content of the programme due to the additional 10 ECTS credits added to this research module, in addition to the increase in the management component of the programme from 15 to 20 ECTS credits.
	Response: The programme team is committed to maintaining the recognised specialist nature of the MSc programme. All programme documentation has been updated to reflect the need for the project to be aligned with the students' specialist discipline area. In the long history of the MSc programme delivery, it has only been in exceptional circumstances where a student has not undertaken a research project aligned with their specialist discipline. This has been due, in the most part, to the student taking up a new role in another laboratory. **The following documents have been updated to reflect this change:** Student handbook p17, 37 Project guidelines p3, 8 Project module descriptor in both 'module overview' and 'teaching and learning' sections
C2	*BIOL 9009 Applied Medical Laboratory Management* Due to specialist nature of an MSc, the panel recommends that the assessment(s) be strongly aligned to the specialist module elective that they have selected. This will promote a greater specialist component within the programme, for the same reasons as outlined in C1 above.

	Response: It is the intention of the assessments for the Applied Medical Laboratory Management module to align with each student's area of specialism. This has been made more explicit in the revised programme documentation. Students will be supported to identify relevant topics to align with their specialist area for these assignments. **The following documents have been updated to reflect this change**: Applied Medical Laboratory Management (BIOL9009) module descriptor: Assessment descriptions.
C3	*Exit award (Student Handbook, p. 32)* Greater clarity is required regarding the role of the exit award within the programme structure, to reflect the provisions of the TU Dublin Exit Award Policy.
	Response: Programme documentation has been updated to provide greater clarity on the exit award within the programme structure and the circumstances under which the exit award will be applied. This aligns more closely with the TU Dublin Exit Award policy. **The following documents have been updated to reflect this change:** Student handbook: page 28 and 34 Programme Handbook: Programme Specific Assessment Regulations
C4	*Exit award (Akari-PMC Programme Document)* This must include a listing of the unique programme learning outcomes listing applicable to the exit award (as per TU Dublin Exit Award Policy requirement). This should align with changes made to the programme learning outcomes arising out of the School response to Recommendation R3 below.
	Response: A list of the updated programme learning outcomes for the Exit Award of Postgraduate Certificate in Clinical Laboratory Science are detailed under the Programme Specific Assessment Regulations section under Awards in the programme document. **The following documents have been updated to reflect this change:** Programme Handbook: Programme Specific Assessment Regulations
C5	*Awards (Akari-PMC Programme Document & other documents as relevant)* Reference to "CPD" and "micro-credential" to be removed from documentation in relation to individual modules, until the TU Dublin Micro-Credential framework and criteria are known and can be implemented. It is recommended that these be renamed as "Single Module Certification" (where relevant) to align with current TU Dublin micro-credential policy and implementation of such at the time of this programme review. The panel recognises that this reference to "Single Module Certification" may change with the implementation of the TU Dublin micro-credential policy.

	Response: Programme documentation has been updated to remove any reference to 'CPD' or 'microcredentials' and replaced with 'single module certification' in line with the TU Dublin micro-credential policy. **The following documents have been updated to reflect this change:** Programme document: year 1 & year 2 awards. BIOL 9241 Molecular Diagnostics and Applied Bioinformatics: reference to CPD removed from 'Outline of sharing arrangements for Programmes'.
C6	*Award Classification and Calculation (Akari-PMC Programme Document & other documents as relevant)* Removal of the recognition of publication of the paper associated with the BIOL 9012 Laboratory Research Project as a criteria for the award of a First Class Honours for the degree. This is due to the limited timeframes within which this could realistically be achieved equally for all TU287 students.
	Response: The Programme Team acknowledges that, while the aim was to incentivise publication of high-quality research, the criterion related to automatically awarding a first class honours where students had their manuscript accepted for publication in a peer reviewed scientific journal prior to the Programme Award Board is not practicable, given the timeline and individual journal publication requirements. All references to this criterion have been removed from the programme and student documents. The research project output remains a publication-ready manuscript, so dissemination of the work through conference proceedings and publication is still strongly encouraged. **The following documents have been updated to reflect this change:** Programme handbook: Awards Student Handbook: Assessment Regulations page 31 Project guidelines
C7	*Entry Requirements (Akari-PMC Programme Document)* Revision of the text is required to more closely align with the provisions of the TU Dublin's RPL Policy. This should include a more detailed description of the non-standard process followed to support an equitable approach to consideration of non-standard applications to the programme.
	Response: The Programme Handbook has been updated to emphasise the fact that applicant's laboratory experience is one of the criteria used for ranking applications. Applicants are considered using a scoring system which ensures objectivity and fairness. The admissions policy section of the programme document has been revised for clarity and to emphasise the consideration of previous laboratory experience and the potential requirement for interview.

	The following documents have been updated to reflect this change: Programme document: Programme entry requirements.
C8	*Attendance requirement (Student Handbook, p. 16)* *"Attendance at all classes, both online and onsite is mandatory"* must be removed from the Student Handbook, as this does not align with the position of the programme leadership (during panel meetings) regarding their attendance policy for the programme.
	Response: The Programme Team acknowledge that a requirement for mandatory attendance is not appropriate for this taught part-time MSc programme and the reference to this requirement has been removed from the Student Handbook. **The following documents have been updated to reflect this change:** This statement has been removed from the Student Handbook (p 17).

Recommendations	
R1	*Monitoring of proposed changes and their impact on student recruitment* The panel recommends ongoing monitoring of the desired impact of the proposed changes on meeting programme aims and objectives, and enhancement of student numbers. In particular, the effect of the following should be monitored: - Expansion of management component of programme to 20 ECTS credits (from original 15 ECTS credit weighting in the older version of the programme). - Increase of 10 ECTS Credits to the Laboratory Research Project module.
	Response: The Programme Team are committed to monitoring the desired impact of these changes to the programme through student and stakeholder engagement and feedback. For the management and research project modules, student marks will be monitored, and external examiner feedback sought. Student project oral examinations and the increased checkpoint interactions will allow academic staff to monitor the impact of the increased credit allocation to the laboratory research project module. Similarly, for the increased credit weighting of the management component, the additional content and assignments will be monitored to ensure that it meets the needs of Medical Science practitioners and support advances in laboratory medicine. The Programme Team will continue its active monitoring of student intake and are confident that the revised MSc programme will enhance student numbers. Marketing of the core and specialist MSc modules for single module certification should also increase student numbers on individual modules.

R2	*Guest Lecturer Support* The panel recommends the enhancement of the support of guest lecturers in their contributions to the programme. This should include support in the development of knowledge, competence and skills in relation to basic principles of academic and assessment practice, as well as digital literacy skills regarding the use of various teaching, learning and assessment technologies, as relevant to their guest lecturing role. This should be recorded in an updated version of the PSER.
	Response: The MSc programme benefits significantly from the leading expertise that the Medical Science practitioners and Medical Consultant guest lecturers bring to the MSc programme. The guest lecturers deliver one lecture (one or two hours) in their area of expertise and are supported by the relevant module leads. Most guest lecturers have contributed a lecture in their specialist area for many years and are already contributing their knowledge and expertise on programmes in other Universities. While examination questions are sought from guest lecturers, the final assessments are curated by module lead within the School who also manage the relevant modular material in the VLE, including materials provided by the guest lecturers. The School and the University must balance the ask of our guest lecturers in the '*development of knowledge, competence and skills in relation to basic principles of academic and assessment practices, as well as digital literacy skills regarding the use of various teaching, learning and assessment technologies*', with their already significant professional workload and the requirement to give a 1- or 2-hour lecture once a year. Student feedback on the specialist discipline modules, to which our guest lecturers make a significant contribution, is consistently positive.
R3	*Programme Learning Outcomes (PLOs)* Recommend review of PLOs to ensure that the scope of the programme is captured in an optimal way. This is particularly relevant for the relationship between the management modules and PLOs, and the laboratory research module and the PLOs.
	Response: Programme learning outcomes have been reviewed and expanded to better articulate the scope of the programme with regard to the field of Medical Science. In all cases, the general theme of the PLOs has not changed, but they now include more detailed specification on the field of study. **The following documents have been updated to reflect this change:** Programme document: Programme learning outcomes. Student handbook: Programme learning outcomes (p26).
R4	*Delivery Modality* Clarity is needed in the documentation regarding the mode of delivery for the overall programme/individual modules. The Student Handbook should include indicative delivery schedules for each module regarding mode of delivery - advance notice of this to facilitate arranging time off work. (Consideration should be given to potential disruption to student

	leave, transport and accommodation arrangements in the event of changes to on-site delivery and assessment components).
	Response: The outline timetable in the Student Handbook has been updated to reflect the student time commitment and synchronous/asynchronous content more clearly. The handbook now also includes a figure which details the commitment (recorded lectures, live lectures, on-campus) for each module, whether students select a specialist modules in year 1, or year 2. The School is committed to ensuring that the MSc programme schedule is finalised in advance of the academic term which will include the fixed dates for on-site and online delivery recognising the need for students to have pre-arranged time off work. This will be supported with an Assessment Calendar with details of the timings for the assessments and assignments for each semester. **The following documents have been updated to reflect this change:** Student handbook: Figure 4 (p21), table 2 (p22)
R5	*Module Learning Outcomes (MLOs)-Assessment Alignment* The MLOs should be revisited for all module descriptors with a view to ensuring that there is not multiple or over-assessment of the MLOs and that the module assessments are optimally aligned to the MLOs.
	Response: The Programme Team have reviewed all modules with a view to reducing overlapping assessments of module learning outcomes. There are instances where the team believe that multiple assessment are justified, however instances of overlapping assessments have been reduced where appropriate as outlined below. **Modules where alignment of assessments to MLOs have changed:** BIOL 9228 - Advances in Clinical Chemistry BIOL 9223 – Research Methods and Project Planning BIOL9233 - Advances in Transfusion and Transplantation Science BIOL 9242 – Advances in Medical Microbiology BIOL9226 - Advances in Haematology BIOL 9012 - Laboratory Research Project
R6	*Assessment Feedback* More structured formative feedback mechanisms should be included in all module descriptors to facilitate student development within the module, where such feedback mechanisms are not yet specified.
	Response: Programme documentation has been updated to include more examples of instances where students will receive structured formative feedback. One example of this is the application of a marking and feedback rubric which will be used to mark all video mini-lecture assignments across the specialist discipline modules and the descriptors for all six modules

	have been updated to reflect this. It should be noted that there are increased opportunities for feedback in BIOL9012 Laboratory Research Project where 40 of the 90 ECTS of the programme are assigned - students will be provided with feedback during each of the check point sessions with their academic mentor. **The following documents have been updated to reflect this change:** Learning and Teaching Methods have been updated in Module descriptors for: BIOL 9228 – Advances in Clinical Chemistry BIOL 9233 – Advances in Transfusion and Transplantation Science BIOL 9242 – Advances in Medical Microbiology BIOL 9225 – Advances in Clinical Immunology BIOL 9226 – Advances in Haematology BIOL 9231 – Advances in Cellular Pathology BIOL 9223 – Research Methods and Project Planning BIOL 9011 – Laboratory Leadership and Change Management BIOL 9224 - Current Trends in Near Patient testing BIOL 9012 - Laboratory Research Project
R7	*Assessment Schedule* An indicative annual assessment schedule should be included in the Student Handbook to facilitate student planning with regards to workload, on-site attendance for assessments/exams, etc.
	Response: Table 3, entitled *Modular Assessment Strategy and Provisional Timetable* in the Student Handbook has been updated to include an overview of the assessment schedule for each year of the programme. This will be supported by a detailed online Assessment Calendar for individual assignments/assessments for each module at induction when the Programme Team will have this detailed information finalised. The specific dates for the Specialist module written examinations will be determined by the TU Dublin Examination Office which are scheduled during the official examination period defined in the TU Dublin Academic Calendar. The Official Examination schedule is published on the TU Dublin website by the Examinations Office one month in advance of the examination period. **The following documents have been updated to reflect this change:** Student handbook: Table 3 (p23)
R8	*BIOL 9012 Laboratory Research Project* • It is recommended that the student agree their area of specialisation with their internal academic supervisor at an early stage of their project planning. • Recommendation to replace requirement for publication, with a paper that is "publication-ready" for a named, medium-impact journal (as selected by the student) and written in accordance with the journal guidelines. This should be included in the rubric for the assessment of the paper.

	• Student Handbook – should provide guidelines and support for students in preparation for their viva component of the assessment. Consideration should be given to whether "viva" is the correct term for this oral assessment. Recommend inclusion of a rubric so that students are aware of the marking scheme being used for the presentation/viva. • Consider introducing a presentation component as part of the overall module assessment/viva.
	Response: The Project guidelines section of the Student Handbook (p 37) refers to the Laboratory Research Project Guidelines document which provides detailed guidelines to support the student with the completion of all components of their Laboratory Research Project. • During the induction week of the programme, students are informed of the need to identify a project area of specialisation as soon as possible. Check point 1 of the laboratory research project module is scheduled in November of Year 1. During this check point students are required to present a rationale for any project idea(s) they have (the why), the methods they plan to use (the how) and the parameters they are going to measure (the what) to academic mentors in their relevant specialist disciplines. This early check point system is designed to provide timely feedback and inform study design and project planning going forward. • Students are not *required* to publish but are required to produce a 'publication ready' scientific manuscript which is worth 50% of the overall marks for the module. As the goal is to prepare a manuscript suitable for publication in a reputable peer-reviewed journal, the guidelines for preparation are aligned with those used by authors in academic journals. For consistency, it has been agreed to use a single journal format 'Laboratory Medicine' (a medium impact, multidisciplinary journal) has now been selected. Guidelines for manuscript preparation are provided in the Laboratory Research Project Guidelines (Section 1.11, Appendix 1). The scientific manuscript rubric (Table 4 in Laboratory Research Project Guidelines) awards marks for adherence to journal guidelines, in addition to other performance descriptors. • The 'viva-voce' term has been replaced with 'oral assessment' in all relevant documentation and the research project module descriptor. Preparation for this oral assessment has been added as a discussion point for check point 6 which happens in March of Year 2. A detailed rubric for the oral assessment is provided in the 'Laboratory Research Project Guidelines' (Table 5). • As part of the checkpoint sessions for this module students are required to make presentations by way of project update, (see Check point 1- presentation of proposal by way of example, p5). Given that the specialist discipline lecturers who will be conducting the oral assessment will have already reviewed the scientific manuscript in detail the Programme Team believe that a presentation is not necessary as part of the oral assessment. The main focus of the oral assessment will be on establishing the students understanding of the rationale for the study design, their critical analysis skills applied to their results, the future direction of the work and the overall breath of their knowledge as it relates to their project area. **The following documents have been updated to reflect this change:** Project guidelines: p11, table 5 (p18), p19-23

R9	*Student Support* Clarity should be provided – both in the Student Handbook and during programme/induction – of the role of the year tutor with regards to student support function. This is particularly relevant within the context of online delivery.
	Response: During induction, students are introduced to both the year 1 and year 2 tutors for the programme. It is made clear that the year tutor is their primary contact for any questions related to the programme or pastoral care. In addition to the role of the year tutor outlined on pages 16-17 of the Student Handbook, additional support for students will be implemented in the context of the online nature of delivery. The Year Tutors for years 1 and 2 will identify a date/time twice each semester to be available virtually to the students for a Q&A session. The students will be advised of this during their induction. In addition, the module leads for the online modules will also ensure students are supported in their progression through the online material.
R10	Programme Awards (Student Handbook, p. 26) The ECTS credits listing for PG Certificate should also be recorded (in a similar manner to the way this is recorded for the full MSc programme).
	Response: The student handbook has been updated to reflect the ECTS credits associated with the exit award. **The following documents have been updated to reflect this change:** Student handbook (p28). Exit Award Students who complete all taught modules, but do not complete the research project module can apply for an exit award of Postgraduate Certificate in Clinical Laboratory Science (50 ECTS, NFQ level 9).'

Other matters to be brought to the attention of Faculty Board and/or Academic Quality Assurance & Enhancement Committee
Pass mark and threshold mark As per Section C above, this programme has a long-standing, previously-approved pass mark of 50%, with a floor of 45%. A further derogation of the reduction of the floor/threshold to 43%, in line with other TU Dublin healthcare programmes in the Faculty of Sciences & Health will be sought after the programme review (in case of any objections from the panel to this reduction in threshold). **Exit award** The previous version of the TU287 programme had a Postgraduate Diploma (60 ECTS credits) as an exit award. This has been changed to a Postgraduate Certificate (50 ECTS credits) for the

newer, updated version of the programme. The panel recommends approval of this Postgraduate Certificate as an exit award. The Exit Award Proposal form was submitted as part of the documentation for review for this programme review-accreditation event. This Exit Award Proposal form will be submitted to the Faculty Board and UPB for approval after the Programme Review event, based on the panel's recommendation for the approval of such an exit award.

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.	
Declan Allen	Declan Allen

School Response	
The response to the conditions and recommendations has been agreed by the School and is signed by the Head of School.	
Mary Hunt, Head of School	Mary Hunt.

Academic Quality Assurance & Enhancement Committee	
The report and response have been approved by the Academic Quality Assurance & Enhancement Committee	
Head of Academic Affairs:	
Signed:	Date: Click or tap to enter a date.

TU287 MSc in Clinical Laboratory Science

Programme Review-Accreditation Event Schedule

Friday 19th April 2024

09:15-15:45

MS Teams

Join on your computer, mobile app or room device

Click here to join the meeting

Meeting ID: 354 931 723 567
Passcode: fDvzqW

Download Teams | Join on the web

Time	Description	In attendance
09:15-09:45	Panel introductions	Panel only
09:45-10:15	Presentation and meeting with programme leadership team	Head of School, Head of Discipline, Programme Co-ordinator(s), Year Tutors
10:15-11:00	Panel meeting (private)	Panel only
11:00-11:15	Panel comfort break	Panel only
11:15-12:30	Meeting with staff responsible for module delivery and assessment *(Discussion of incl. modules and syllabus, teaching and learning methods and assessment)*	Head of Discipline Programme Co-ordinator(s) Staff responsible for delivery & assessment of modules (module co-ordinators)
12:30-12:45	Panel meeting (private)	Panel only
12:45-13:30	Meeting with student representatives, graduates	Student representatives, graduates only
13:30-14:15	Panel comfort break	Panel only
14:15-15:15	Private Meeting of Panel to discuss outcome and highlight key areas for the report (private)	Panel only
15:15-15:30	Panel comfort break	Panel only
15:30-15:45	Final meeting with Programme leadership team to verbally report findings	Head of School, Head of Discipline, Programme Co-ordinator, Programme Team