Institute of Technology Sligo
INSTITIÚID TEICNEOLAÍOCHTA SLIGEACH

PROGRAMME VALIDATION REPORT

Date of Evaluation: **18th May 2021**

Programmes Title(s) Evaluated: Level 6 Higher Certificate in Science in Biomedical Science 60 ECTS Full time
Level 6 Higher Certificate in Science in Pharmaceutical Science60 ECTS Full time

Award titles: Higher Certificate in Science in Biomedical Science
Higher Certificate in Science in Pharmaceutical Science

Unique Programme Reference Number PRN: SG_SPHAR_C06
SG_SBIOM_C06

Panel of Assessors:

Name & title	Job title & place of work	Role on panel
Dr Breda McTaggart	Head of Department of Social Science, IT Sligo	Chairperson
Dr Arjan Van Rossum	Head of Department of Life and Health Sciences, Dundalk Institute of Technology	External Panel Member
Mr Niall McEvoy	Head of Innovation, IT Sligo	Panel Member
Dr Aodhmar Cadogan	Assistant Registrar, IT Sligo	Secretary

Declaration Regarding Any Conflicts of Interest: The members of the Panel signed a form confirming that they did not have any conflict of interest. Note Dr Arjan Van Rossum, has been an External Examiner in Science in recent years but is at the end of contract. In view of the nature of the awards under consideration, panel agreed to proceed.

Meeting groups

Institute Management: Prof Neville McClenaghan

Programme development team. Mary Butler, Tom Patton, Stephen Daly.

Persons met by validation panel

Name & title	Role in Institute	Rationale for presence at validation.
Prof Neville McClenaghan	Head of Department of Life Science	Head of Department
Mary Butler,	Lecturer	Programme Development
Tom Patton,	Lecturer	Programme Co-ordinator
Stephen Daly	Lecturer	Programme Co-ordinator
David Doyle	Lecturer	Lecturer
Declan Shelly	Lecturer	Lecturer
Oliver Joyce	Lecturer	Lecturer

Validation criteria	Sufficient evidence / Insufficient evidence
Rationale for the programme • Philosophy underpinning the programme e.g. market for programme in the region and its relevance to the region • Graduate profile and employment opportunities for graduates • Rationale for the programme e.g. School's/Institute's strengths/opportunities • Programme Aims and Objectives • Expected intellectual development and Programme learning outcomes • Related existing programmes.	Sufficient evidence provided.

Commendation: Programme developed to increase flexibility for students and widen access as per the strategic plan by having a stand alone offering at Level 6, both for students who wish to enter the workplace early and exit with a level 6 or open up the possibility of collaborative programmes and international students in the future. **Condition:** None **Recommendation:** None	
Programme structure • Delivery type (semesterised or stage-based) • Proposed mode of delivery (i.e. in-class, on-line, blended, full time and/or part time) • Planned intake numbers (over the full duration of the programme) • Role of placement	Sufficient evidence provided. Programme structures overlap with current L7 Programmes which were reviewed 2 years ago in programmatic review. Both programme structures were considered appropriate to level 6 awards.
Commendation: None **Condition:** None **Recommendation:** None	
Resources (over the full duration of the programme) • Facilities and human and material resources available to mount the programme • Clarification of any staffing requirements • Location of the delivery • Specific requirements: lecture rooms, laboratories, library, Information technology and other student supports • Confirmation regarding any new facilities and staffing requirements • Special requirements (e.g. remote access for distance learners)	Sufficient evidence provided. No additional resource requirements anticipated.
Commendation: None **Condition:** None **Recommendation:** None	
Access, Transfer and Progression Criteria • Student admission requirements	Sufficient evidence provided.

• Progression criteria from one stage to the next and to higher levels on the NFQ • Non-standard entry (e.g. mature candidates and candidates with experiential learning) • Transfer policy into the programme and onto other programmes	Admission requirement is by direct entry similar to the current Higher certificate in Science.
Commendation: None **Condition:** None **Recommendation:** None	
Curriculum • A matrix exhibiting the academic pathway and the relationship between modules • The consistency between the programme content, teaching methods and the programme learning outcomes • Balance between the depth and breadth of the programme • Rigour of the academic standard in the final stage of the programme • Student workload • Practice: the role and management of placement or work-based projects.	Sufficient evidence provided Some indication of topics duplicated in modules, however the panel was satisfied that the learning was at a more in-depth level in subsequent (related) modules.
Commendation: None **Condition: None** **Recommendation:** 1. Continue to engage with staff across the programme team to ensure that there is no duplication of content and consequent duplication of assessment. For example the Acid / Base content in Chemistry 1 and Inorganic Chemistry. DNA in Biochemistry 1, Molecular Biology and Biology 1.	
Assessment • The appropriateness of the modes of assessment to be used • The balance between the marks awarded for different assessment modes (e.g. continuous assessment, projects, reports, sit-down examination)	Sufficient evidence provided / Insufficient evidence

• Confirmation that all of the programme learning outcomes are appropriately and adequately assessed within the set of module assessments.	Discussed the 75% attendance gate at laboratories and the gates set by science for final exams in stage 1 and 2. The gate in final exams is applied consistently across each stage, but is not mentioned in the module descriptors of the specific modules. Lab attendance minimum is mentioned in some nodules but not all, which may lead to inconsistency in student message. Discussed the Assessment matrix for Year 1 and year 2. Panel considered there was a high volume of assessment when the totality of the modules is considered. This is important for the programme team to review on an on-going basis. The provision of an assessment schedule allows overview of all assessments in single page.
Commendation: **Condition:** **Recommendation:** The following recommendations should be implemented <u>at the next opportunity</u> for revision: 2. Standardise the description of minimum attendance requirements e.g. 75% for practicals across the school in the Assessment Strategy section for each module similar to text in module Physics 1. **3.** Standardise the description of the gate for final exams in stage 1 and 2 for all modules where a gate is applied in the Assessment Strategy section for each module 4. Review and revise module learning outcomes in line with the Institute Procedure QA003 Module Writing Procedure, both in terms of the number of outcomes and the choice of words in the Blooms Taxonomy. 5. Review the assessment across each stage of the programme to ensure that workload is manageable for student and over assessment is avoided.	
Staffing • Quality and specialities of staff available to support the programme • Technical and administrative support • Staff development • Industrial/commercial profile of staff • Research and publications	No additional resources indicated by the panel.
Commendation: None **Condition:** None **Recommendation** None	
Programme Administration and Quality Assurance • Procedure for managing programme • Student support student counselling and tutorial arrangements	Sufficient evidence provided. Current QA arrangement will cover these programmes

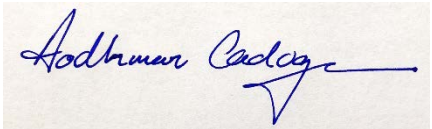
• Aspects of programme which highlight and foster study skills, independent learning and the inculcation of individual responsibility in students • EU and international aspects if appropriate • Feedback mechanisms e.g. use of surveys, focus groups and follow-up actions.	
Commendation: None **Condition:** None **Recommendation:** 6. The department or School should review the currency of EXAM011 Science Attendance at Classes Procedure and state the policy and options for repeat requirements where student do not meet the minimum attendance in Laboratory classes. Ensure consistency in practice across the school.	

Overall decision of the panel
The panel agreed to recommend to the Academic council the approval of the following programme: Higher Certificate in Science in Biomedical Science Higher Certificate in Science in Pharmaceutical Science

Chairperson: Dr Breda McTaggart

_____ Date _____

Secretary: Dr Aodhmar Cadogan



25/05/2021

_____ Date: _____

Programme Schedules

Higher Certificate in Science in Pharmaceutical Science

SG_SPHAR_C06 **2021**

Module Code	Module Title	Stage	Semester	M/E	FT Hours	Credits	CA %	EXAM %	PROJ %	PRAC %
MATH06071	Mathematics for Science 1	Stage 1	Semester 1	Mandatory	4	5	65	35	0	0
PHRM06009	Introduction to Pharmaceutical Science	Stage 1	Semester 1	Mandatory	2	5	100	0	0	0
PHYS06007	PHYSICS 1	Stage 1	Semester 1	Mandatory	5.5	5	65	35	0	0
CHEM06044	CHEMISTRY 1	Stage 1	Semester 1	Mandatory	5.5	5	65	35	0	0
COMP06170	Information Technology 1	Stage 1	Semester 1	Mandatory	2	5	90	0	0	10
BIOL06032	BIOLOGY 1	Stage 1	Semester 1	Mandatory	5.5	5	65	35	0	0
MATH06070	Mathematics for Science 2	Stage 1	Semester 2	Mandatory	3	5	30	70	0	0
PHYS06008	PHYSICS 2	Stage 1	Semester 2	Mandatory	5.5	5	65	35	0	0
PHRM06010	INTRODUCTION TO DRUG DISCOVERY AND DEVELOPMENT	Stage 1	Semester 2	Mandatory	2	5	100	0	0	0
CHEM06035	CHEMISTRY 2	Stage 1	Semester 2	Mandatory	5.5	5	65	35	0	0
COMP06171	Information Technology 2	Stage 1	Semester 2	Mandatory	2	5	80	0	20	0
BIOL06031	BIOLOGY 2	Stage 1	Semester 2	Mandatory	5.5	5	65	35	0	0
MCRO06001	MICROBIOLOGY	Stage 2	Semester 3	Mandatory	4	5	65	35	0	0
CHEM06032	ORGANIC CHEMISTRY 1	Stage 2	Semester 3	Mandatory	7	10	65	35	0	0
BIOC06001	BIOCHEMISTRY	Stage 2	Semester 3	Mandatory	4	5	65	35	0	0
SAFE06023	ENVIRONMENT HEALTH AND SAFETY	Stage 2	Semester 3	Mandatory	3	5	100	0	0	0
CHEM06046	PHYSICAL CHEMISTRY	Stage 2	Semester 3	Mandatory	5	5	65	35	0	0
BIO06023	INTRODUCTION TO BIOPHARMACEUTICALS	Stage 2	Semester 4	Mandatory	3	5	60	40	0	0
PHRM06012	ORGANIC CHEMICAL SYNTHESIS	Stage 2	Semester 4	Mandatory	3	5	100	0	0	0
CHEM06048	Inorganic Chemistry	Stage 2	Semester 4	Mandatory	5	10	15	35	0	50
CHEM06047	PHARMACEUTICAL ANALYTICAL METHODS	Stage 2	Semester 4	Mandatory	4	5	65	35	0	0
MCRO06012	PHARMACEUTICAL MICROBIOLOGY	Stage 2	Semester 4	Mandatory	4	5	65	35	0	0

Higher Certificate in Science in Biomedical Science

SG_SBIOM_C06 2021

Module Code	Module Title	Stage	Semester	M/E	FT Hours	Credits	CA %	EXAM %	PROJ %	PRAC %
BIOL06032	BIOLOGY 1	Stage 1	Semester 1	Mandatory	5.5	5	65	35	0	0
CHEM06044	CHEMISTRY 1	Stage 1	Semester 1	Mandatory	5.5	5	65	35	0	0
PHYS06007	PHYSICS 1	Stage 1	Semester 1	Mandatory	5.5	5	65	35	0	0
MATH06071	Mathematics for Science 1	Stage 1	Semester 1	Mandatory	4	5	65	35	0	0
COMP06170	Information Technology 1	Stage 1	Semester 1	Mandatory	2	5	90	0	0	10
COMM06058	Essential Skills for Scientists	Stage 1	Semester 1	Mandatory	2	5	100	0	0	0
BIOL06031	BIOLOGY 2	Stage 1	Semester 2	Mandatory	5.5	5	65	35	0	0
CHEM06035	CHEMISTRY 2	Stage 1	Semester 2	Mandatory	5.5	5	65	35	0	0
PHYS06008	PHYSICS 2	Stage 1	Semester 2	Mandatory	5.5	5	65	35	0	0
MATH06070	Mathematics for Science 2	Stage 1	Semester 2	Mandatory	3	5	30	70	0	0
COMP06171	Information Technology 2	Stage 1	Semester 2	Mandatory	2	5	80	0	20	0
BIO06033	INTRODUCTION TO MEDICAL BIOTECHNOLOGY	Stage 1	Semester 2	Mandatory	2	5	100	0	0	0
BIOC06008	BIOCHEMISTRY 1	Stage 2	Semester 3	Mandatory	7	10	65	35	0	0
MCRO06001	MICROBIOLOGY	Stage 2	Semester 3	Mandatory	4	5	65	35	0	0
BIO06032	Bioethics	Stage 2	Semester 3	Mandatory	2	5	100	0	0	0
BIO06028	Analytical Techniques	Stage 2	Semester 3	Mandatory	5	5	65	35	0	0
MATL06007	BIOMATERIALS AND MEDICAL DEVICES	Stage 2	Semester 3	Mandatory	4	5	60	40	0	0
MATH06072	Mathematics for Science 3	Stage 2	Semester 4	Mandatory	3	5	40	60	0	0
BIOL06017	Molecular Biology	Stage 2	Semester 4	Mandatory	6	10	50	50	0	0
PHAR06002	MEDICAL PHARMACOLOGY	Stage 2	Semester 4	Mandatory	4	5	40	60	0	0
BIO06006	MEDICAL IMMUNOLOGY	Stage 2	Semester 4	Mandatory	2	5	100	0	0	0
MCRO06002	PROCESS MICROBIOLOGY	Stage 2	Semester 4	Mandatory	4	5	65	35	0	0