Report of the Review Panel to the Teaching Council following a review of an Initial Teacher Education programme

An Chomhairle Mhúinteoireachta
The Teaching Council

Name of HEI: **Dublin City University Institute of Education (DCU)**

Name of Programme: **BSc in Science Education**

Date: **March 2023**

Contents

Programme Overview

This report relates to the review of the following programme provided by Dublin City University Institute of Education (DCU):

BSc in Science Education*,* hereinafter referred to as 'the programme'.

Background

Céim: Standards for Initial Teacher Education sets out the standards which programmes of initial teacher education in Ireland must meet in order to gain accreditation from the Teaching Council. It is also a benchmark for anybody seeking to register as a teacher in Ireland.

The Teaching Council's *Procedures for the Professional Accreditation of Programmes of Initial Teacher Education* (hereinafter referred to as the *Procedures*) sets out the process by which programmes are reviewed.

DCU submitted a completed pro forma, toolkits and appendices which mapped the programme against each of the standards outlined in *Céim: Standards for Initial Teacher Education*. The programme was reviewed by the Review Panel following the *Procedures.*

Particular requirements for post-primary programmes

In November 2020, the Council published *The Teaching Council Registration Curricular Subject Requirements (Post-Primary),* which set out the Council's revised subject criteria requirements for approved curricular subjects. The requirements may be met through studies incorporated into a concurrent programme of initial teacher education or may be met through undergraduate studies prior to completing a consecutive programme of initial teacher education. This also guides providers of post-primary consecutive programmes in determining suitability of entrants, outlining which curricular subjects, entrants can ultimately be registered to teach, as well as matching students to appropriate methodology modules.

The Review Process

The review of the **Bachelor of Science in Science Education** at **DCU** took place between September 2022 and March 2023 in accordance with the Council's *Procedures for the Professional Accreditation of Programmes of Initial Teacher Education*.

Step 1 Notification	The Council notified DCU of its intention to review the Bachelor of Science in Science Education on 27 April 2022.
Step 2 Preliminary Meeting	A preliminary meeting was held between the Council executive staff and DCU on 13 May 2022 to provide an overview of the submission documentation and answer queries from DCU.
Step 3 Submission of Pro Forma	DCU submitted the proforma and supporting documentation for the Bachelor of Science in Science Education on 23 September 2022.
Step 4 Desk-based Review	A desk-based review was conducted by the Council staff on 7 October 2022.
Step 5 Appointment of Review Panel	The process was formally initiated when the Review Panel (hereinafter referred to as 'the panel') was appointed by the Teaching Council's acting director, with Prof Anne O'Gara as Chairperson and Mr Ciarán Flynn and Dr Sarah Anderson as panel members. The panel was briefed by Teaching Council staff.
Rapporteur	The review panel was supported in their role by Tríona Cleary as rapporteur. The rapporteur's functions included liaison with DCU, maintaining records of meetings, and drafting and finalising the panel's report in conjunction with the panel Chairperson. The panel was also supported in its deliberations by external subject experts and by the Director of the Teaching Council and her executive staff nominees.
Step 6 Review panel meeting 1	The panel met on 9 January 2023 to consider the submission. They requested clarifications from DCU on 17 January 2023. DCU responded to this request on 3 February 2023.
Step 7 Engagement with HEI	The panel chairperson and rapporteur held a pre-meet with the Head of School on 26 January 2023 to discuss arrangements for a site visit.

Site Visit	The full review panel conducted a site visit to DCU on 10 March 2023. This was also attended by the rapporteur and Teaching Council staff. The panel had a tour of the facilities and met with representatives from the University Management Team, the Programme Chairs, Associate Deans, Placement Co-ordinators, Treoraithe and Students.

The panel met the following:

- Deputy President
- Executive Dean, Institute of Education
- Deputy Dean, Institute of Education
- Associate Dean for Teaching & Learning
- Faculty Manager
- Assistant Faculty Manager
- BEd Programme Year Head
- BEdLan Programme Chair
- BEdLan Deputy Programme Chair
- BRelEd Programme Chair
- PEB PEM Programme Chair
- PME Joint Programme Chairs
- PMEP Programme Chair
- SE Programme Chair
- BEd & PMEP Placement Co-ordinator
- BEdLan Placement Co-ordinator
- BRelEd Placement Co-ordinator
- PME, PEB/PEM, SE Placement Co-ordinator
- Associate Dean for Research
- Associate Dean for Professional Development & Partnerships
- Treoraithe
- Students |
| **Step 8**
Review panel | The panel compiled their overall findings / recommendations for the report. |
| **Step 9**
Reporting | The report was drafted and issued to the HEI for the 30-day feedback period.

It was finalised when the final response was received from DCU. |
| **Step 10**
Education Committee | The Chair will present the report at the next meeting of the Education Committee. They may decide to; accredit the programme, accredit the programme with requirements or not accredit the programme. |

Overall Findings

The panel appreciated the positive engagement by DCU Institute of Education (IOE) with the review and accreditation process and the comprehensive documentation provided. It is clear that the status of the faculty of education within the university is high and that the IOE compares positively with other centres of global consequence in teaching and teacher education.

The panel was impressed by the programmes' overall structure and design which demonstrates a clear alignment with the *Céim: Standards for Initial Teacher Education.* The principles underpinning the conceptual framework are evident across the teaching and learning processes of the programme and the submission provided strong exemplars of responsiveness to local, community, national and international settings and contexts.

The site visit to the Glasnevin and St Patrick campuses and dialogue with faculty on a variety of programmes demonstrated that there are appropriate programme and subject specific facilities available to support research, teaching and learning. DCU IOE were given the opportunity to showcase some of the innovative practices and initiatives that had not come across in the paperwork.

The submission includes interesting and innovative modules and workshops including 'Teaching Online and Blended Learning Environments' and workshops on classroom-based assessments in Teaching and Assessing Junior Cycle Mathematics.

Programme Design

	Comment	Standard addressed?
1.1.1 The Programme	The programme received academic accreditation prior to being submitted to the Teaching Council for professional accreditation and is in line with the Council's Registration Regulations 2016.	Yes
1.1.2 Conceptual Framework	The programme is supported by a clearly defined conceptual framework. *"As a community of teacher educators we want our students and graduating newly qualified teachers to share our commitment to education as a public good, a human right and a force for transformation, equality and inclusion, social justice, global citizenship, and sustainability".* In the application, DCU demonstrated how the conceptual framework is developed in the context of the providers' mission and ethos and how it is informed by research and the Council's *Policy on the Continuum of Teacher Education.* *"Teacher educators at DCU are committed to research-informed teacher education, actively engaged in a broad and diverse range of research relating to inter alia pedagogies for teacher education and higher education, specific disciplines and subjects, as well as policy and critical thematic analysis"* They demonstrated the core idea that being and becoming a teacher is a lifelong process involving knowledge and skills as well as the development of teacher voice and agency and a commitment to the needs of all learners and the *Code of Professional Conduct for Teachers.* *"We seek to model and engender core attitudes, dispositions, knowledge, understandings and skills to equip our graduates to begin their teaching careers believing in the potential of every learner (European Commission, 2017), highly knowledgeable, competent and critically reflective in designing, evaluating and improving (Teaching Council, 2011) teaching, learning and assessment, engaging with and in research, and in their own personal and career long professional development."* The application demonstrated how the conceptual framework provides a rationale for the model of ITE which has been adopted. *"As a DCU concurrent post primary ITE programme, the SE programme offers optimal opportunities for disciplinary and*	Yes

	interdisciplinary approaches integrating subject knowledge with foundation and professional studies."	
	The application shows how school placement is the fulcrum of the continuum of teacher education.	
	"Professional placement is the central axis where student teachers experience situated learning, explore knowledge connected to practice, engage in professional learning communities and begin learning to "think... to know...and to feel like a teacher" (Feiman-Nemser, 2008)".	
	The application showed how student teachers are given the opportunity to actively learn from practising teachers, with methodology modules focused *"on having practising teachers modelling classroom practices and developing students' pedagogical content knowledge for mathematics or science/physics/chemistry at either junior or senior cycle of Irish post-primary education."*	
1.1.3 Programme Aims	The application clearly defined the aims of the programme, demonstrating how the aims are closely aligned with the conceptual framework and are reflected in specific learning outcomes.	Yes
	The programme aim to *"develop in student teachers the ability to enquire critically and to reflect actively on their teaching and professional practice, encouraging them to recognise the importance of reflection in their own life-long learning and to appreciate the dynamic nature of the teaching profession"* is reflected in the learning outcome of being enabled *"to describe and reflect on his/her identity as an autonomous science/mathematics teacher".*	
	The application demonstrated how the programme caters for curriculum development, to include the learning outcomes-based curricula and national priorities, particularly in the area of STEM knowledge and skills.	
	"Students explore the impact of curriculum theory on current educational provision in Ireland and examine the main issues to be considered when developing, implementing and evaluating programmes of instruction."	
	The submission also referenced the STEM internship programme which is an education-industry collaboration, which provides for *"teachers to complete a paid internship in industry and gain a first-hand experience of STEM roles and careers".*	

	DCU evidenced how the programme will enable newly qualified teachers to facilitate quality teaching and learning for all pupils, how it prepares student teachers for teaching, learning, reflective practice, and assessment in their schools, and prepares them for entry to their professional role. *"The ES143 Microteaching and Teaching Preparation module, students are introduced to learning theories, contemporary research-informed practices and the concept of a reflective practitioner. They are then offered opportunities to experience these practices as learners through model-based activities and micro-teaching lessons upon which they will later reflect."* The application demonstrated how the programme aims foster student teachers' agency and mind-set to be open to professional growth and learning over the course of their careers, to reflect on their own professional learning and that of their pupils, and to support their pupils in achieving their full potential. The academic staff teaching on the programme *"act as role models for the Science Education students, demonstrating their own dedication to life-long learning and fostering such a commitment in the students."*	
1.1.4 Programme Duration & Balance	The review process determined that this concurrent programme meets the criterion of a minimum of four years duration, and how the models of teaching, learning and assessment set out in the conceptual framework are evident in the programme structure. BSc in Science Education is a four year, 240 ECTS concurrent degree. It comprises 120 ECTS of Education, of which School Placement comprises 60 ECTS, and Foundation and Professional Studies comprise 60 ECTS. There are 120 ECTS credits allocated for the subject discipline modules with 60 ECTS credits for Mathematics and 60 ECTS credits for Chemistry or Physics. The programme meets the Teaching Council Subject Requirements (Post-Primary) for Chemistry, Mathematics and Physics. As evident in Toolkit A, the programme is structured in a manner which ensures that there is a balance between all areas of study over the course of the four years. DCU demonstrated that all areas of study are relevant to students' future work as teachers, that the programme will facilitate student teachers' personal development and their growth and wellbeing into their professional role, enabling them to become responsible, trustworthy, and reflective practitioners who are prepared for life in the classroom.	Yes

	"From their arrival onto the BScSE, students are inducted into a learning community in which the values of respect, integrity, trust and care are prioritised. Our community of teacher educators seeks to model this in all interactions with students and each other" *"We take the view that our students are always learning and always becoming teachers and that every interaction and every insight is another moment of learning."*	
1.1.6 Integration and Diversity of Programme Content	The submission established that foundation studies are integrated into the programme in a way that is meaningful for student teachers and their practice and that the programme design follows a spiral learning approach. *"A spiral learning approach is used in the programme by which the key concepts and themes are revisited over the course of the programme, at increasingly sophisticated levels, reinforcing the principles explored and promoting deeper understandings. Prior knowledge is used to inform future learning so that students can build on the foundations laid down, connecting the new learning to previous knowledge and putting it in context."* The application showed how the programme allows student teachers to experience a variety of teaching, learning and assessment modes, providing for small group work and tutorials and opportunities for individual and collective reflection. *"A variety of modes of teaching and learning are used on the programme, including lectures, tutorials, laboratory classes, workshops, professional practice and project work"* *"Students are given multiple opportunities to reflect on their own learning, their teaching practice and their pupils' learning"*	Yes
Aptitude Test	DCU completed an 'Aptitude Test' declaration form, confirming that the programme design allows for the provision of 'aptitude tests' for teachers who have qualified outside of the State.	Yes
1.1.7 Required Areas of Study	The review process determined that the Foundation Studies, Professional Studies & School Placement elements of the programme meet the requirements of this standard. Foundation Studies The programme provides research informed insights to support student teachers' understanding of the practices of	Yes

teaching, learning and assessment for all pupils, provides the basis of a strong professional ethic in teaching and learning and includes curriculum studies, the history and policy of education, philosophy of education, psychology of education and sociology of education.

"The aim of the suite of modules is to provide research-informed insights to support student teachers' understanding of the practices of teaching, learning and assessment for all pupils and support student teachers as they develop their own professional identity and agency as teachers."

The programme, enhances students' understanding of the Irish education system, locates it in context and enables students to think critically about it.

"students are enabled to think critically about the Irish education system as they analyse the factors influencing curriculum developments, the key role of stakeholders, the structural and legislative framework of Irish education, and critically examine current and future trends in education."

Professional Studies

DCU demonstrated that the Professional Studies elements of the programme develop the pedagogical expertise of student teachers, including subject specific pedagogical content knowledge.

"Students engage with a range of concepts and methods exploring learning theories, classroom management, behaviour management, inclusive task design, effective questioning and classroom discourse."

The programme ensures that opportunities are provided for students to experiment with and explore new and emerging technologies for teaching and learning and that their communication skills are advanced.

In the module ES330 students are required to *"design an inclusive teaching episode that effectively incorporates digital technologies"* which they will present to their class as part of the assessment for this module.

"students will have the opportunity to work collaboratively, critically evaluate peers' work, develop their communication skills and reflect on their own learning".

Students are afforded the opportunity for reflection and engagement in and with research to develop their adaptive

expertise, engaging in a *"systematic reflection on their practice"* in a research project in Year 4.

School Placement

The school placement handbooks were commendably detailed and clear. A significant strength of school placement on all DCU IOE programmes is the focus on the school-university partnership. The support for treoraithe is admirable with the "Partnership for Learning" programme for DCU partner schools providing an excellent exemplar of the "opportunities for fruitful collaborations across the education continuum" referenced in the Pro Forma.

DCU demonstrated how the school placement model on the programme provides opportunities for student teachers to experience a high support/high challenge model of placement:

"Professional placement modules across all four years of the programme ensure that students are appropriately supported in their socialisation into the profession and provide the context for students to critically reflect on theory and practice."

Students are given the opportunity to observe experienced teachers and to plan for and undertake class teaching, learning and assessment…in a diversity of class settings and subject levels.

"Within these block placements, students are afforded opportunities to teach pupils at different levels and with differing learning needs across Science, Chemistry, Physics and Mathematics. Students engage in direct teaching in these subjects, while also undertaking observation of experienced practitioners and of the broader school".

The student teacher will be encouraged to reflect critically on their practice and programme of study through their Taisce, reflecting on feedback and identifying areas for further professional learning for Droichead.

"In order to scaffold and capture student teachers' development and document their learning, a placement professional portfolio, Taisce, is maintained throughout the duration of the programme"

"Students will also be encouraged to draw on evidence from their Taisce to identify areas of their practice that require further support or guidance including future professional learning for Droichead".

Core elements of programmes of ITE

The review process determined that the submission demonstrated that the following elements underpin all aspects of the programme.

1.Inclusive Education

The submission demonstrated that inclusive education is an important aspect of the programme.

"As with other core elements, our approach to the theme of inclusive education is developmental, with the subject being revisited at various times and in different ways during the programme."

"students learn to identify, understand and value diversity in educational settings, develop knowledge of the social issues that impact on access and disadvantage, and work towards identifying strategies to combat these."

2. Global Citizenship Education

DCU evidenced how global citizenship education and education for sustainable development is integrated into the programme.

"pupils are challenged to look at the world and society and to examine their place in making it more sustainable, equitable and just".

"The equipping of our student teachers to facilitate education for sustainable development and sustainable lifestyles is one way in which we integrate the theme of 'caring for others' into our programme."

3. Professional Relationships and working with parents

The application evidenced how the programme supports and encourages student teachers to establish working relationships with parents and other stakeholders in the education sphere.

"Students work to understand how to work in partnership with parents/guardians to support pupils' education and examine the concerns and expectations of parents in relation to education and schooling."

"Legislation relevant to the school and the classroom are also examined from a number of perspectives during the programme".

4. Professional identity and agency

The application demonstrated how the programme supports the development of the teacher as a self-reflective autonomous professional and a life-long learner.

"professional placement provides a prime example of an occasion when students engage in professional learning communities and learn to "think… to know…and to feel like a teacher" (Feiman-Nemser, 2008)"

"a spiral approach is taken to the opportunities offered to students for reflection on, discussion of, and deconstruction and reconstruction of their identities as teachers".

5. Creativity and Reflective practice

DCU have demonstrated how the programme fosters a creative mindset among student teachers as reflective practitioners, innovators and researchers:

"Students are encouraged to be innovative in their approaches to constructing learning environments and experiences for their pupils, demonstrating a flexibility in their thinking and a willingness to pursue new ideas. Such creativity is fostered through, for example, various activities in which students are required to develop teaching resources or artefacts for use with pupils"

6. Literacy and Numeracy

The programme design shows a commitment to enhance students' own literacy and numeracy while also ensuring that they learn techniques to develop their future pupils' literacy and numeracy skills in their future teaching careers.

The submission asserts that *"the concept of numeracy permeates the programme"*

Various modules *"have an explicit focus on enabling student teachers to select and design approaches, activities and tasks for teaching and assessing numeracy"*

"For Science Education students, frequent exposure to and modelling of sophisticated scientific, mathematical and technical language supports the development of their competence and confidence in teaching the vocabulary and language forms associated with these subject disciplines to their pupils."

7. Digital Skills

	DCU demonstrated that digital skills are incorporated into the programme to support teaching and learning for all students. Students *"learn how to critically evaluate digital tools using concepts such as functionality, user interface, universal design and cognitive engagement."* *"By modelling the use of digital tools, staff provide students with authentic opportunities to unpack their own learning and consider how they might in turn use such technologies in schools."*	
Post-primary: Curricular subject criteria registration requirements	The programme is Level 8 on the National Framework of Qualifications (NFQ) with a minimum pass result in all examinations pertinent to Mathematics and Chemistry or Physics. Each subject meets the minimum subject specific requirements for registration from January 2023 and meet the minimum requirement of 60 ECTS each.	Yes
	The review process determined that the subject discipline components include subject specific curricular studies and pedagogies (methodologies). *"The overarching aim of the suite of mathematics modules in the BSc in Science Education is to develop in our graduates the mathematical knowledge, skills and understanding necessary for the teaching of the Mathematics syllabus/specification to the highest level in post-primary education, while also ensuring they are equipped with appropriate attitudes and dispositions to be educators."*	Yes
1.1.8 Learning and Assessment Strategies	In the application, DCU demonstrated how the principles, beliefs, and values about teaching, learning and assessment which are set out in the conceptual framework are evident in the teaching, learning and assessment modes used in the programme. It demonstrated the relationship (constructive alignment) between the learning opportunities and the assessment criteria which student teachers are expected to meet, and how the assessment processes and procedures are coherent and integrated using a variety of assessment modes. *"The students explore, develop and reflect on a variety of assessment practices in workshops and micro-teaching settings, and complete an assignment in which they must explain and justify, in detail, the assessment methods they have chosen to assess the achievement of specific learning outcomes."*	Yes

	"our students themselves experience of a wide variety of modes of assessment, both formative and summative, over the duration of the programme. In this way, we aim to model good practice for our students and to afford them multiple opportunities to learn from their own experiences."	

Programme Resourcing

	Comment	Standard addressed?
1.2.2 Staffing	The review process determined that the programme meets this standard by providing: • programme staff qualifications and experience • evidence that at least 50% of all School Placement Tutors are registered with the Teaching Council, with 53.7% of their existing placement tutors registered with the Teaching Council. Leadership is aware of the need to ensure faculty are registered with the Teaching Council and are providing support to ensure those whose registration has lapsed regain it. The application demonstrated the staff distribution mechanisms they have in place to show that prior to qualification, while on school placement, a student teacher will be summatively assessed at least once by a registered teacher. It also demonstrated how the student: staff ratio of 15:1 is achieved, with the programme demonstrating a current ratio average of 7.56:1. DCU evidenced the staff development policies that are in place to ensure that staff continue to enhance their knowledge and expertise including that relating to teaching enhancement, learning and development, mentoring, buddying, and coaching, educational fee supports, study leave, research support and sabbatical leave.	Yes
1.2.3 Facilities	The application established that appropriate facilities are available to support research and teaching and learning, providing the following: libraries, language laboratories, digital technology resources, sports facilities, silent and group research spaces, science laboratories and microteaching studios.	Yes
1.2.4 Student Support and Guidance Systems	The submission demonstrated the provisions that are in place for the personal and social development and pastoral care of student teachers.	Yes

| | DCU have a wide range of student supports and services including academic, personal, and financial supports.

It was evident that students receive general support through university services as well as targeted support more specific to the development of a teacher and challenges a classroom setting can provide.

"all student teachers on the BSc in Science Education have access to the extensive suite of personal and social development and pastoral care supports available across all DCU campuses"

DCU illustrated how a student teacher might transfer to an alternative programme, *"provided they have passed all assessments/ examinations and have met the specific programme entry requirements for the programme to which they wish to transfer."* | |
|---|---|---|
| 1.2.5 Communication and Decision-making Structures | The submission demonstrated the structures that are in place to facilitate the participation of staff and students in relevant deliberation and decision-making processes.

"Class Representatives from each year of the programme serve on the Class Reps Council of the Students Union."

"17 academic staff from the DCU Institute of Education are represented on Academic Council." | Yes |
| 1.2.6 Financial Resources | DCU demonstrated that the programme is adequately resourced to ensure that programme aims are met through student fee income and state grants. | Yes |

School Placement

	Comment	Standard addressed?
1.3.1 A Shared Vision for School Placement	The DCU school placement model supports the shared vision for School placement. The review process determined that student teachers experience a supportive model of placement which facilitates professional conversational engagement between all partners.

"Professional placement is structured and orientated within a spirit of systematic partnership with schools, with a developmental and spiral approach to student preparation, and the provision of further mentoring support made available to students as required." | Yes |
| 1.3.2 Duration | The review process determined that the duration of the school placement is in compliance with the Teaching Council's requirements and includes both school-based and | Yes |

	HEI-directed activities, thus meeting the requirements of this standard. *"Relevant to their stage of development, in the final two years of the programme students engage in extended block placements in post-primary schools. Students are scheduled in schools for 8 weeks in third year from November to December and 16 weeks in fourth year from January to May."*	
1.3.3 Elements of School Placement	The application showed that the school-based and HEI-directed activities included as part of the placement experience are as outlined in the Guidelines on School Placement and regarding the stage the student teacher is at on the programme. *"The design of the programme allows for a spiralled based approach to preparation for school placement in which students are provided with scaffolded support and mentorship in the process of becoming adaptive, inclusive, innovative, collaborative and creative teaching professionals."*	Yes
1.3.4 School Placement Models	The review process determined that school placement models are developed using a partnership approach, whereby the HEI and schools actively collaborate in the organisation of the school placement. *"Guidance is provided to schools in terms of supporting student teachers on school placement in a comprehensive schools handbook (see Appendix 5) and through regular communication between the DCU school placement team and the school".*	Yes
1.3.5 Securing of Placement	The application confirmed that DCU assumes overall responsibility for the placement of student teachers.	Yes
1.3.6 Diversity of Placement Settings	The programme meets the requirement of a minimum of two placement settings incorporating a variety of teaching situations, class levels and school contexts. *"students are afforded opportunities to teach pupils at different levels and with differing learning needs across the subject domains of science education."*	Yes
1.3.7 Taisce in School Placement	The submission provided evidence of the approaches DCU is utilising to enable the student teacher to demonstrate, using their Taisce, • an understanding of inclusive education as applicable to that context • an understanding of working with parents	Yes

	"Students working with peers co-create a resources chart/inforgraphic which focuses on support student teachers to actively establish and maintain inclusive approaches to teaching, learning and assessment environments". Students engage in a *"critical reflection on observing or co-facilitating a Parent-Teacher meeting in their school context with an experienced educator OR reflection on engagement in mock Parent-Teacher meeting with peers including reference to self/peer assessment (mock interviews will be based on case scenarios provided)"*	
1.3.8 Research in School Placement	The review process determined that the student teacher engages in research on their own practice that demonstrates the connection between the sites of practice during at least one school placement module. Students are required to undertake a Research Project in Year 4. As an Institute of Education, faculty provided exemplars of programme elements which are research informed and research driven. School partners explained how student research carried out during placement and shared during school sharing events had been used for school improvement. The impact of the learning from the research and the 'sharing out events' on decision-making processes for the HEI were also noted.	Yes
1.3.9 School Placement: Evaluation and Assessment	The submission demonstrated that all student teachers are supported and assessed by two or more placement Tutors, and at least once by a registered teacher. It outlined the teaching enrichment and mentoring support offered to students who fail a module of school placement. *"An early reporting system is in place to identify students at risk and/or likely to fail school-based placement modules."* *"additional school-based support visits and one to one online mentorship sessions are provided according to the specific needs of students identified as at-risk."*	Yes

Recommendation

Having regard to the documentation that was submitted, the panel adjudges that the programme meets the standards set down by the Teaching Council in *Céim: Standards* for Initial Teacher Education and in The Teaching Council Registration Curricular Subject Requirements (Post-Primary)

Accordingly, it recommends to the Teaching Council that the programme be granted accreditation.

Appendix 1 - Review Panel Membership

Chair: **Prof Anne O'Gara**

Professor Anne O'Gara has had a long and varied career in Irish education. She was appointed President of Marino Institute of Education (MIE) in August 2006, having previously worked as a Primary Inspector with the Department of Education and Skills and taught for more than twenty years. She was awarded the title of Adjunct Professor in the School of Education, Trinity College Dublin (TCD) in recognition of her experience and leadership in the field of teacher education in Ireland. Nominated by the Minster of Education and Skills to The Teaching Council, Anne represented the primary colleges of education as a Council member from 2007-2012 and completed a second term on Council from 2016-2018. She continues to act as Chair of Review and Accreditation Panels for The Teaching Council, as required. Anne is currently Deputy Chair of the Board of Tusla, the Child and Family Agency, a Board member of The Ark and a member of the Early Learning and Care Qualifications Advisory Board.

Panel Member: **Mr Ciarán Flynn**

Ciarán Flynn, Educational Consultant, retired from his eight-year tenure as General Secretary of the Association of Community and Comprehensive Schools (ACCS), where he advised and supported the Boards of Management and Principals of the 96 post-primary schools in the Association. He acted as a Management nominee on the Teaching Council for a three-year term, chairing the Audit and Risk Committee. He chaired the joint research project of the Teaching Council and the Department of Education and Skills on "Teacher Supply" and also chaired the Placement System Working Group.

He was Principal of Navan Community College and the founding Principal in 1994 of Ashbourne Community School. In his 30 year teaching career he worked in a number of Dublin and Meath schools as a Science and Career Guidance teacher, then as a Deputy Principal and completed his Masters in Education Management in the University of Ulster in 1994. He worked for an eight-year period as a Part-Time Lecturer in DCU on the M.Sc. in Educational Training and Management programme in areas such as Action Research and Leadership and supervising Masters students.

He was a member of the national Leadership Development for Schools Team for a three-year period working with newly appointed Principal and Deputy Principal teachers countrywide on behalf of the Department of Education and Skills. As an Educational Consultant he has worked for and with individual schools, regional and national educational bodies in carrying out investigations, supporting and promoting professional development. He also carries out work for the Department of Education and Science in a number of areas and for the State Examinations Commission as a member of the Audit and Risk committee. He is the Chairperson of the boards of management of two schools in the Leinster area and recently retired from Chairpersonship of the Le Chéile Schools Trust.

Panel Member: **Dr Sarah Anderson**

Sarah K. Anderson is a Senior Lecturer in Education at the University of Glasgow in Scotland. Sarah has a PhD in Teacher Education with a cognate in Educational Leadership from the University of North Dakota, USA in addition to a master's degree in special education and an undergraduate degree in teaching secondary level social sciences. Sarah is also a Fulbright Scholar to Norway (2011-2012) and continues to work with Fulbright as faculty advisor for the

Distinguished Teacher award. From 2012-2020 Sarah worked at Mayville State University in the role of Associate Professor and Accreditation Coordinator. Sarah is also a reviewer of teacher education programmes internationally with the Council for the Accreditation of Educator Preparation (CAEP). As a teacher educator, she has instructed graduate and undergraduate pedagogical courses at the secondary level, taught courses in special education, advised capstone portfolios and dissertations, and supervised clinical experiences. Her research interests include teacher appraisal, continuous improvement efforts, progress monitoring, educational policy, and effective instructional strategies. Sarah is the leader of the Research and Teaching Group (RTG) for Pedagogies, Praxis & Faith with strategic oversite for initial teacher education within the scope of the General Teaching Council Scotland (GTCS).

Appendix 2 - Teaching Council Registration: Curricular Subject Requirements (Post-primary) Effective for registration on or after 1 January 2023

Chemistry

In order to meet the registration requirements, set down in the Teaching Council [Registration] Regulations in respect of the curricular subject of Chemistry an applicant must meet all of the following criteria:

1.   a) Applicants must hold a degree-level qualification, with Chemistry studied up to and including third-year level or higher (or modular equivalent).

   b) The qualifying degree must be equivalent to at least Level 8 on the National Framework of Qualifications (NFQ) and with a minimum pass result in all examinations pertinent to the subject of Chemistry.

   (c) The qualifying degree must carry at least 180 ECTS (European Credit Transfer System) credits (or equivalent) with the specific study of Chemistry comprising at least 60 ECTS credits (or equivalent).

2.   The study of Chemistry during the qualification must show that the holder has acquired sufficient knowledge, skills and understanding to teach the Chemistry syllabus/specification   to the highest level in post- primary education (see www.curriculumonline.ie).

   To meet this requirement the degree must include the study of modules in all of the following areas:

   Essential Areas

   a) Organic Chemistry

   b) Inorganic Chemistry

   c) Physical Chemistry

   The remaining ECTS credits may be drawn from the following areas:

   d) Analytical Chemistry

   e) Environmental Chemistry

   f) Pharmaceutical/Biopharmaceutical Chemistry

   g) Industrial Chemistry

3. Laboratory/practical work must be completed in the course of the degree.

Physics

In order to meet the registration requirements, set down in the Teaching Council [Registration] Regulations in respect of the curricular subject of Physics an applicant must meet all of the following criteria:

1.   a) Applicants must hold a degree-level qualification, with Physics studied up to and including third-year level or higher (or modular equivalent).

b) The qualifying degree must be equivalent to at least Level 8 on the National Framework of Qualifications (NFQ) and with a minimum pass result in all examinations pertinent to the subject of Physics.

c) The qualifying degree must carry at least 180 ECTS (European Credit Transfer System) credits (or equivalent) with the specific study of Physics comprising at least 60 ECTS credits (or equivalent).

2.   The study of Physics during the qualification must show that the holder has acquired sufficient knowledge, skills and understanding to teach the Physics syllabus/specification to the highest level in post- primary education (see www.curriculumonline.ie).

To meet this requirement the degree must include the study of at least five of the following areas:

1. Mechanics

2. Quantum Mechanics

3. Properties of Matter

4. Oscillations, Waves, Acoustics

5. Thermodynamics

6. Light and optics

7. Current Electricity

8. Electromagnetism

9. Electronics

10. Condensed Matter/ Solid State Physics

11. Relativity

12. Particle Physics

13. Topic in Advanced or Applied Physics

14. Astronomy

3.   Laboratory/practical work must be completed in the course of the degree

Mathematics

In order to meet the registration requirements, set down in the Teaching Council [Registration] Regulations in respect of the curricular subject of Mathematics an applicant must meet all of the following criteria:

1.   (a) Applicants must hold a degree-level qualification, with Mathematics studied up to and including third-year level or higher (or modular equivalent).

(b) The qualifying degree must be equivalent to at least Level 8 on the National Framework of Qualifications (NFQ) and with a minimum pass result in all examinations pertinent to the subject of Mathematics.

(c) The qualifying degree must carry at least 180 ECTS (European Credit Transfer System) credits (or equivalent) with the specific study of Mathematics comprising at least 60 ECTS credits (or equivalent).

2.   The study of Mathematics during the qualification must show that the holder has acquired sufficient knowledge, skills and understanding to teach the Mathematics syllabus/specification to the highest level in post- primary education (see www.curriculumonline.ie).

To meet this requirement the degree must include the study of all of the following

Essential areas of study

a) Analysis (must include a module or modules in multi variable calculus)

b) Algebra (must include a module or modules in linear Algebra)

c) Geometry (must include a module or modules in Euclidean and Non-Euclidean Geometry)

d) Probability

e) Statistics (must include a module or modules in Statistical Inference)

The remaining credits (or equivalent) may be in any of the above essential areas, or be drawn from the following optional areas:

Optional areas of study

f) Dynamical Systems and Chaos

g) Calculus of Variations

h) Numerical Analysis or Computational Mathematics

i) Mathematical Modelling

j) Discrete Mathematics

k) History or Philosophy of Mathematics

l) Mathematical Logic

m) Set Theory and Cardinality