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

Name of HEI: **University of Limerick (UL)**

Name of Programme: **LM097 Bachelor of Science (Education) in Mathematics and Computer Science**

Date: **March 2023**

Contents

Programme Overview

This report relates to the review of the following programme provided by University of Limerick:

Bachelor of Science (Education) in Mathematics and Computer Science, 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.

University of Limerick 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 (Education) in Mathematics and Computer Science** at **University of Limerick (UL)** took place between July 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 UL of its intention to review the Bachelor of Science (Education) in Mathematics and Computer Science, on 17 February 2022.
Step 2 Preliminary Meeting	A preliminary meeting was held between the Council executive staff and UL on 9 March 2022 to provide an overview of the submission documentation and answer queries from UL.
Step 3 Submission	UL submitted the proforma and supporting documentation for the Bachelor of Science (Education) in Mathematics and Computer Science on 6 July 2022.
Step 4 Desk-based Review	A desk-based review was conducted by the Council staff on 18 July 2022 and a letter requesting clarifications was sent to UL on the 28 July 2022. UL submitted their response on 2 September 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 Dr Mary Fleming as Chairperson and Mr John Condon and Prof Margery McMahon 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 UL, 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 acting director of the Teaching Council and her executive staff nominees.
Step 6 Review panel meeting 1	The panel met on 29 September 2022 to consider the submission. They requested clarifications from UL on 12 October 2022. UL responded to this request on 10 November 2022.
Step 7 Engagement with the HEI	The panel chair and rapporteur held a pre-meet with UL on 8 November 2022 to discuss arrangements for a site visit.
Review panel meeting 2	The full panel met on 1 December 2022 to discuss the schedule for the site visit and consider the clarifications received from UL.

Site Visit	The panel conducted a site visit to University of Limerick on 8 December 2022. 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 teams, the School Placement team and some students and recent graduates of the programmes. The following attended on behalf of the university • Prof Shane Kilcommins (Provost) • Prof Rachel Msetfi (Dean, Faculty of Education & Health Sciences) • Prof Sean Arkins (Dean, Faculty of Science & Engineering) • Dr Sandra Joyce (Dean, Faculty of Arts, Humanities & Social Sciences) • Mr John Field (Director of Finance at UL) • Mr Declan Hannan (Financial Controller) • Mr Brian Hartigan (Finance Business Partner) • Prof Paul Conway (Professor of ITE & Deputy Head of School of Education) • Dr Donal Canty (Deputy Head of School of Education) • Ms Ann-Marie Kennedy (Accreditation & Quality Officer) • Ms Nicola Kelly (Project Manager) • LM090 Programme Team: Dr Elaine Murtagh, Dr Daniel Tindall, Mrs Bridgett Moody, Dr Aengus Finnegan, Dr Carrie Griffin, Dr Sarah Hannafin & Dr Niamh O'Meara • LM092 & LM096 Programme Team: Dr Regina Kelly, Dr Ronan Courtney, Dr Audrey O'Grady, Dr Tofail Syed, Ms Sarah Hudson, Dr Ken Byrne • LM097 Programme Team: Dr Niamh O'Meara, Dr Olivia Fitzmaurice, Prof James Gleeson, Ms Clare McInerney • School Placement Director & Tutors: Dr Ann Marie Young, Ms Michaela Hayes, Dr Rachel Lenihan, Dr Orla McCormack, Ms Aoife Clancy, Mr Patrick Keays • Students / Recent Graduates: Sydney Sheridan, Avril Healy, Katie Jones, Scott O'Grady, Jack Ryan Prof Kerstin Mey, UL President and Prof Patricia Mannix McNamara, Head of School of Education were unable to attend the site visit but were represented by the UL Provost and the Deputy Heads of the School of Education
Step 8 Review panel meeting 3	The panel sought some further clarifications from UL following the site visit and then compiled their overall findings.
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 UL.

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 commends the excellent standard and quality of the submission, and the professional and deep engagement of the University of Limerick's (UL) Leadership, School of Education, and members of the programme team with the reaccreditation process**.**

The institutional level support and commitment to Initial Teacher Education (ITE) is significant, as is the articulated vision for ITE as an integral entity of the University in the future. The quality and standard of the University facilities, innovative collaborative spaces and the subject learning centres available to the students on these programmes is impressive and demonstrates recognition of the requirements for quality ITE provision.

The submitted documentation and the subsequent discussions at the onsite meeting in UL demonstrated considered thinking and reflection on the integration of *Céim: Standards for Initial Teacher Education* with a clearly articulated conceptual framework of programme design by the programme leadership and team. The Panel observed impressive enthusiasm, passion and proactive engagement with the programme's design and implementation by members of staff at the site visit, which was reinforced by the current students and recent graduates who met the panel. Consequently, the programme represents a deliberate and innovative response to the accreditation process and demonstrates clear alignment with the student teacher's trajectory of learning and professional development as reflective practitioners.

Programme Design

	Comment	Standard addressed?
1.1.1 The Programme	The Programme received academic accreditation on 2 March 2022 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. In the submission, UL 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* *"UL's initial teacher education conceptual framework is informed by research in three ways:* *· research-informed programme design, · a research-informed approach to all coursework, school placement and associated practices, · Staff research expertise."* *Appendix 6(a)* 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* *"Aligned with the Teaching Council, UL's ITE programmes have core values that are congruent with the professional and regulatory context of teaching in Ireland centred on innovation, integration and improvement underpinning all stages of the continuum."* The application demonstrated how the conceptual framework provides a rationale for the model of ITE which has been adopted, how it enables student teachers while on	Yes

	placement to demonstrate the link between the sites of practice (HEI and School). *"The adoption of an integrated and thematic approach to UL's ITE programme design is intended to support students demonstrating links between `sites of practice' in learning to teach. In particular, we note the role here of the microteaching programme, the professional portfolio and other campus-based coursework that scaffolds student teachers understanding (and enactment of practice) in advance of school placement (SP) by providing `appropriate approximations of practice."* The application showed how school placement is the fulcrum of the continuum of teacher education and how keys themes are revisited over the programme. *"A well implemented spiral curriculum facilitates sequencing of content moving to greater complexity overtime in revisiting focal topics."* It demonstrated how the professional studies aspect of the programme gives student teachers sufficient opportunities to actively learn from practising teachers about relevant and innovative methodologies, appropriate to their practice in using a variety of strategies, *such as "case studies", "micro-teaching", "reality chats", "video cases" etc.*	
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. *"To develop knowledge of learners and their development in social context, teaching, mathematics & computer science and curriculum goals (including national priorities)."* The application demonstrated how the programme caters for curriculum development, to include the learning outcomes-based curricula and national priorities. *"Across the programme student teachers are encouraged to consider the meaning, role and impact of curriculum (as content, pedagogy and assessment)."* UL demonstrated 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 practices, and assessment in their schools, and prepares them for entry into their professional role.	Yes	

	"The ITE programme will prepare student teachers for teaching, learning, reflective practices, and assessment in their schools through a focus on and the development of relevant knowledge, skills, and dispositions." and *"The assessment in these modules is rich and varied and includes summative examinations, project-based groupwork, lab assignments and research tasks thus ensuring students are exposed to and appreciate the benefits of multiple modes of assessment in the teaching and learning process."* The application showed 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 programme actively fosters student teachers agency and mindset so that they are open to professional growth and learning over the course of their careers in a number of ways…"*	
1.1.4 Programme Duration & Balance	The submission demonstrated 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. Bachelor of Science (Education) in Mathematics and Computer Science 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. The programme meets the Teaching Council Subject Requirements (Post-Primary) for Mathematics and Computer Science. 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. UL 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. *"…the programme is designed to provide student teachers with the knowledge, skills and dispositions necessary for life*	Yes

	in the classroom as well as a deep understanding of active engagement within a professional learning community of teachers"	
1.1.6 Integration and Diversity of Programme Content	UL demonstrated that foundation studies are integrated into the programme in a way that is meaningful for student teachers and their practice; that the programme design follows a spiral learning approach and that the programme allows student teachers to experience a variety of teaching, learning and assessment modes. *"A well implemented spiral curriculum facilitates sequencing of context moving to greater complexity overtime in revisiting focal topics. Crucial in this spiral design is a proactive approach to support knowledge development and integration over time."* The application evidenced that small group work and tutorials are a central feature of the programme and that the programme provides opportunities for individual and collective reflection by student teachers and programme staff. *"…the experience of multiple modes of teaching, learning and assessment models best practice for students and provides opportunity for reflection and critique on the complex relationships between teaching, learning and assessment and their assessment literacy develops throughout their ITE experience."*	Yes
Aptitude test	UL 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 meets the requirements of this standard. Foundation Studies The programme provides research informed insights to support student teachers' understanding of the practices of 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.	Yes

"…both the overall programme design, as articulated in the conceptual framework, and individual modules have been developed from a research-informed stance."

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

"We believe it is vital that prospective teachers have a deep understanding of the context of Irish education encompassing learners, schools, families, and wider society in a national and global context."

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

"…the pedagogical expertise of student teachers is developed through providing multiple opportunities for students to engage with their disciplinary content knowledge (CK) and how they might best teach this with a specific focus on pedagogical content knowledge (PCK)."

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 context of subject pedagogy modules, students engage with subject specific software and digital resources. Students have the opportunity across multiple modules to engage with these new and emerging technologies through individual and collaborative activities."

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

"…students will have an opportunity to both deepen their understanding of adaptive expertise as well as consider the tools/ resources and professional learning contexts, including professional conversation, which will help them across the early phases of their practice as a teacher and well beyond in committing to an adaptive expertise stance in their practice."

School Placement
UL demonstrated how the school placement model on the programme provide opportunities for student teachers to experience a high support/high challenge model of

placement and engage in research on their own practice, making connections between the sites of practice.

"Premised on the assumption that research literacy is challenging to develop our programme provides student teachers with the range of opportunities to connect across campus and placement sites of practice given the programme wide approach to research literacy."

Students are given the opportunity to observe experienced teachers and plan for and undertake class teaching, learning and assessment in a diversity of class settings and subject levels, to assist them in establishing classroom management strategies.

"Observation, along with planning, professional conversation, and reflective practice, comprise our programmes core practices."

As one of the six design principles of the ITE programme at UL, student teachers 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.

"During placement student teachers receive detailed feedback from tutors on a number of occasions allowing them to focus on strengths and areas for development."

Core elements of programmes of ITE
The review process determined that the following elements underpin all aspects of the programme.

1.Inclusive Education

UL demonstrated that inclusive education is an essential element of the programme and student teachers are supported to provide for the learning needs of all pupils.

"In School Placement 1 in Year 2, students create learning outcomes and activities for all learners while enabling connections with equity and social justice. In Year 3, students reflect on their experiences on School Placement 1 via two Inclusive Education modules."

2. Global Citizenship Education

The application showed how global citizenship education and education for sustainable development, wellbeing social justice and interculturalism is embedded in the programme.

	"Educational experiences will be holistic (fostering an awareness of both local and global challenges), transformative (placing a focus on engagement to bring about change), and values-based (reflecting personal, societal, and global values)."	
	3. Professional Relationships and working with parents	
	UL demonstrated that the core element of establishing professional relationships and working with parents and other stakeholders is integrated into the programme *"in a spiral manner."*	
	"…student teachers will be required to 'Demonstrate an understanding of working with parents in their portfolio." and *"On placement students will be expected to engage in professional conversations with peers, Treoraí and university tutors to enhance their knowledge of classroom dialogue, teaching and learning."*	
	4. Professional identity and agency	
	The application demonstrated that the programme includes support for the development of the teacher as a self-reflective autonomous professional, integrating the core values outlined in the Code of Professional Conduct for Teachers into their teaching practice.	
	"During `School Placement 1', students are "encouraged to explore their professional identity and agency and come to understand the value and importance of collaborative professional relationships."	
	5. Creativity and Reflective practice	
	UL demonstrated how the programme fosters a creative mindset among student teachers as reflective practitioners, innovators and researchers through core and support modules:	
	"Several anchor modules develop teachers as reflective practitioners."	
	For example, in the module *"EN4046 students are required to draw together equality, diversity and inclusion theory and practice insights to construct a sociological reflection on their school placement period."*	
	6. Literacy and Numeracy	

	The programme design showed that students are afforded the opportunity to enhance their own literacy and numeracy while also ensuring that they learn techniques to develop their future pupils' literacy and numeracy skills.	
	During School Placement 2 *"students will be challenged to be innovative so as to explicitly include literacy and numeracy during the planning, teaching and assessment stages of teaching."*	
	7. Digital Skills	
	The application showed that digital skills are incorporated into the programme to support teaching, learning and assessment for all learners and that student teachers have the opportunity to explore new and emerging technologies.	
	"When enrolled in UL, all students enter a digitally-rich learning environment with access to the campus-wide digital architecture including an extensive online library system, a comprehensive learning management platform and a range of bespoke software and digital hardware related to specific disciplines."	
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 Mathematics and Computer Science.	Yes
	Each subject meets the minimum subject specific requirements for registration from January 2023 and meets the minimum requirement of 60 ECTS each.	
	The submission showed that subject discipline components include subject specific curricular studies and pedagogies (methodologies) for Mathematics and Computer Science.	Yes
	"The structure of the programme allows the student teachers to develop these different knowledge domains simultaneously while also developing their identity as a teacher/educator."	
1.1.8 Learning and Assessment Strategies	UL 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.	Yes

	"As part of this process students develop evaluative expertise and skills of appraisal along with the opportunity to construct, share and receive feedback which will be essential to both their own learning, their peers and their skills as a teacher. Strategies to support self-assessment via reflexivity are developed throughout the programme from the first to the final `education' module…" and *"…student teachers plan and develop strategies and resources for the integration of assessment in their practice as teachers."*	

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 64% of all School Placement Tutors are registered as teachers with the Teaching Council. The application demonstrated the staff distribution mechanisms that UL 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 ratio average of 6.55 UL demonstrated the staff development policies that are in place to ensure that staff continue to enhance their knowledge and expertise.	Yes
1.2.3 Facilities	UL detailed the facilities that are available to support research, teaching, and learning, providing the following: digital technology resources, a multi-purpose sports hall and sports facilities, silent and group research spaces, microteaching labs and an Education Technology Centre.	Yes
1.2.4 Student Support and Guidance Systems	The review process determined that provisions are in place for the personal and social development and pastoral care of student teachers. UL have a wide range of student supports and services in their Student Affairs Division such as *"Disability Support Services, Chaplaincy Service, Counseling Service, Mature*	Yes

	Student Office, Student Health Centre, First Year Support Coordinator, Access Office and Arts Office." and *"The Division also operates the SilverCloud programme for personal wellbeing which is available 24/7 to all students and staff in the university."* UL demonstrated how a student teacher might transfer to an alternative programme, where feasible, and to carry credits in so doing, with due regard to the exit award arrangements already in place in the HEI. *"In supporting individual progression students may seek to exit the programme based on accumulated credits. Students already enrolled at UL can transfer onto a different programme through internal transfer, and students from other higher education institutions (HEIs) can transfer onto a UL programme through external 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 (one example of which is through their course boards which comprise *"academic staff, students, technical support and other relevant stakeholders involved in the delivery of the programme."*) UL also confirmed that the *"Head of Education is a member of Academic Council."*	Yes
1.2.6 Financial Resources	UL 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 UL 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. School placement is very well structured and supported within the programme. The placement handbooks for students, tutors and school personnel (treoraithe and other personnel) provide focus and clarity on each stakeholder's requirements and responsibilities. The panel approves of the department's investigation of a micro-credential model	Yes

	for CPD in the context of building and strengthening relationships with schools and enhancing teacher education in the longer term. *"UL provides detailed handbooks to assist school principals, deputy principals and treoraithe in their role in supporting student teachers."*	
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 HEI-directed activities, thus meeting the requirements of this standard. *"The school-based element incorporates direct teaching experience of a minimum of 200 hours across School Placement 1 and School Placement 2."*	Yes
1.3.3 Elements of School Placement	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. *"To develop competent, caring, innovative, collaborative and reflective teachers, student teachers are prepared for placement in two cycles."*	Yes
1.3.4 School Placement Models	The submission showed that school placement models are developed using a partnership approach, whereby the HEI and schools actively collaborate in the organisation of the school placement. *"Our partnerships with schools are underpinned by the effective implementation of a peer-support network, where teacher-educators and classroom-based practitioners can communicate better, learn from each other and support student teachers in terms of assistance and assessment."*	Yes
1.3.5 Securing of Placement	The submission established that UL's School Placement Office in consultation with other faculty staff assumes overall responsibility for the placement of student teachers and uses an online placement system 'TUS' to manage school placements. *"Overall responsibility for sourcing and coordination of school placements is undertaken by the School Placement Office (Cooperative Education & Careers Division) in consultation with the Academic Director of School Placement, the Head of School and Deputy Heads of School."*	Yes

1.3.6 Diversity of Placement Settings	The review process determined that the programme meets the requirement of a minimum of two placement settings incorporating a variety of teaching situations, class levels and school contexts, including Irish medium schools. *"UL ITE programmes encourage a diversity of experience for student teachers across both placements."* and *"The issue of diversity is addressed in the handbooks for both placements and students are strongly encouraged to find opportunities to experience teaching in a wide variety of contexts."*	Yes

1.3.7 Taisce in School Placement	The submission provided evidence of the approaches UL is using to enable the student teacher to demonstrate, using their Taisce
	   o an understanding of inclusive education as applicable to that context
	   o an understanding of working with parents
	
	Taisce is a core activity threading across all aspects of the programme and particularly school placement. Taisce supports and enables the student teachers' incremental appreciation of reflective practice as a lifelong professional learning endeavour. This is further emphasised with a final individual reflection that links to future professional learning and development at induction and Droichead.
		Yes

1.3.8 Research in School Placement	UL showed how 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. Student teachers engage in a *'cycle of inquiry'* during their *EN4027 School Placement 2* module. The design of the programme is research driven, and led with a strong and consistent emphasis on enabling and supporting the student teacher as researcher. Research development is creative and opportunistic and is informed by the UL ITE Research Literacy framework, which spans across all modules culminating with an inquiry research project in final year.	Yes
1.3.9 School Placement: Evaluation and Assessment	The review process determined 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.	Yes

	"Prior to placement, repeating students engage with an assigned SP mentor to review strengths and areas for development arising from previous placements and to put a structured plan in place to meet the needs of the student."	

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: **Dr Mary Fleming**

Dr Mary Fleming Emeritus Senior Lecturer in NUI Galway. She was Head of the School of Education, NUI Galway from 2013-2016 and member of the Teaching Council 2016-2018. As Director Teacher Education within the School of Education from 2012, she had primary responsibility for the development and accreditation of Initial Teacher Education (ITE) Programmes and was academic Director of the Professional Master of Education. Mary lectured and taught modules in the areas of Leadership and Policy development, Curriculum Studies, and Professional Practice. Her research interest areas are concerned with the dynamics of teaching and learning within classrooms, leading learning and policy developments within the system and leadership practices within educational contexts.

Panel Member: **Dr John Condon**

Dr John Condon (BA(UCD) HDE(NUIM) MSc (TCD) EdD(NUIM) began his career in Greendale Community School from 1977 to 1989. During that time, he was seconded to the Shannon Curriculum Development Centre & Health Education Bureau between 1980 and 1982. He is a former principal of Athboy VS and Beaufort College, Navan. He has been working as an Education Consultant since 2013. He is interested in the areas of educational innovation, inclusion, history of education, multicultural education, traveller education and teacher education.

Panel Member: **Professor Margery A. McMahon**

Professor Margery A McMahon is Head of the School of Education at the University of Glasgow and Professor of Educational Leadership. She is a former teacher of History and Politics and has been involved in teacher education, career-long professional learning, and leadership education since joining University of Glasgow. She is the author and co-author of a range of books and articles focusing on professional learning and leadership including, Forde, C., and McMahon, M., (2019) Teacher Quality, Professional Learning and Policy, London: Palgrave MacMillan. She is UK Representative for the International Study Association for Teachers and Teaching (ISATT).

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

Computer Science

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

1.   (a) Applicants must hold a degree-level qualification, with Computer Science 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 Computer Science.

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

2.   The study of Computer Science during the qualification must show that the holder has acquired sufficient knowledge, skills and understanding to teach the Computer Science 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 (There is an expectation that societal impact of computing technologies underpin all areas)

1) Software Engineering and Project Management (may include software design and development systems analysis, design process, testing)

2) Programming (including algorithms and data structures)

3) Computer Systems (including hardware or architecture)

Optional areas: The study must also include a minimum of 2 of the following areas:

4) Web development

5) Animation/ games/ multimedia development

6) App development

7) Robotics

8) Embedded systems

9) Modelling/ simulation

10) Data analysis

11) Databases

12) Machine learning/AI

3.   Practical assignment work must be completed throughout the degree course (e.g., programming assignments).

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