



## **Quality Enhancement Plan**

## **School of Physics**

## January 2024

| FOR COMPLETION BY QEU  |  |
|--|--|
| Date of Peer Review visit: 18 <sup>th</sup> -19 <sup>th</sup> November & 24 <sup>th</sup> – 26 <sup>th</sup> November 2021       | Head of Unit: Professor Paul Callanan  |
| Link to Panel Report published on QEU website:   | Date QEP considered by Quality Enhancement Committee: 23 <sup>rd</sup> November 2023 |
| https://www.ucc.ie/en/media/support/qualityenhancementunit/reports/sefs/DepartmentofPhysics-<br>PeerReviewGroupReport2020-21.pdf |  |

| Item<br>No | Panel Recommendation   | Actions Planned <sup>1</sup>  | Responsibility for<br>Action <sup>2</sup> | Resource<br>Implications <sup>3</sup>                   | Implementation<br>Schedule <sup>4</sup> | Effectiveness/Impact <sup>5</sup> To be completed as part of follow-up |
|------------|--|---|---|---|---|--|
| 1          | Increasing income through the recruitment of International Students. | The School has begun to liaise with<br>the UCC US agent to improve<br>student recruitment from that | Learning Committee,                       | Expanded and refurbished teaching space, as per Physics | Over next two years                     | Highest  |

<sup>&</sup>lt;sup>1</sup> May include actions planned within the unit or those that require interface with other parts of the university

<sup>&</sup>lt;sup>2</sup> E.g. Head of School, School Manager, all staff, specific committees etc

<sup>&</sup>lt;sup>3</sup> Resources – the financial or human resources required to implement the recommendation

<sup>&</sup>lt;sup>4</sup> Interim milestone dates can be included here (e.g. within 6 months, within 12 months, within 3 years etc.)

<sup>&</sup>lt;sup>5</sup>To be completed as part of follow-up 12-15 months post publication of QEP - Recognising the need to reflect on the effectiveness of actions undertaken, and to what extent the actions have achieved their intended outcome

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|            |   | source, and has in the past been in detailed contact with Minzu University in China. The School very much hopes that the latter can be re-started, especially after the recent visit of UCC VP Global and her team to China.                                       |   | plans for Kane Refurbishment. Travel costs for funding for academic visits to recruitment fairs and collaborating universities. |  |  |
| 2          | Work with and through the College of SEFS to approach SFI for funding for two further lectureships/professorships in the area of Quantum Physics. | The School is a key element of UCC Futures/Quantum and Photonics. As such, a detailed business plan has been developed justifying the appointment of 5.5 new academic FTEs in the areas of Quantum and Photonics (followed by at least one other in Astrophysics). | Director of UCC Futures<br>Quantum and<br>Photonics, HoS  | Additional staff office and research space, as per Physics plan for the Kane Refurbishment, also essential.                     | 2024/2025 for<br>hires, 2026+ for<br>Kane<br>Refurbishment | Highest  |
| 3          | Increase EU undergraduate student numbers by creating a business plan for the suggested new programmes (and current programmes).                  | As part of UCC Futures, we have included a business plan for increasing CK408 intake and a new degree in Theoretical Physics. In addition, there will also be a new MSc programme in   | Business plan already<br>created, action now<br>with HoS and the<br>School's Outreach,<br>Public Relations and<br>Admissions Committee. | Expanded and refurbished teaching space, as per Physics plan for the  | 2024/2025  | High   |

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|            |  | Quantum/Photonics/Environment. The School will now work to promote these programmes to EU undergraduates.   |   | Kane<br>Refurbishment.                |   |  |
| 4          | The School's relationship with Tyndall                           | There continues to be strong lines of communication between the School and Tyndall – in the context of UG teaching (module delivery, Final Year Projects), UCC Futures (where the School shares a senior appointment with Tyndall) and SFI Research Centres. SEFS has recently initiated a series of "biannual meetings between cognate Schools and Tyndall, which will be the ideal platform to enhance the School's relationship with Tyndall going forward. The School will continue to use its close relationship to Tyndall in marketing its programmes. | HoS   | none                                  | ongoing                                 | Highest  |
| 5          | School plans to improve gender balance within the staffing body. | ' ''  | HoS, the School's<br>Equality, Diversity and<br>Inclusion Committee | None<br>currently.                    | ongoing                                 | High   |

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|            |   | remains within its staffing complement (and to a lesser extent in its student cohort). It is progressing its plans to apply for an Institute of Physics new "Inclusion" programme, a successor to its "Juno" Award, as a stepping stone to an Athena Swan award. In addition, the School will continue to support the student EPONA initiative. |   |                                       |   |  |
| 6          | That the School explores future synergies with cognate areas/disciplines: | This is expected to occur organically within UCC Futures/ Quantum and Photonics.  | HoS, Director of UCC<br>Futures Quantum and<br>Photonics. | None currently                        | ongoing                                 | high   |
| 7          | That the School engages with its alumni:                                  | The School has significantly increased its efforts to maintain communication with its graduates. The HoS has met with the HoC and SEFS Head of Development, concerning Physics philanthropic possibilities.   | HoS   | None currently                        | ongoing                                 | moderate   |

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| 8          | That the School leverages its strong social media presence to capture individual social media posts into an annual bulletin/newsletter;     | A bi-annual newsletter has been instigated.   | Physics EA with Comms responsibility        | None currently                        | ongoing                                 | moderate   |
| 9          | That the School nurtures its links with teachers :  | The School is delighted to see the interest in the Physics and Maths stream in the new CK413 Science Education programme, and plans to use this new teaching cohort to raise its profile at post-primary level.               | School's Teaching and<br>Learning Committee | None currently                        | Next 1-2 years                          | high   |
| 10         | That the School increases their links with CIRTL and encourages staff to do the PG Certificate in Teaching and Learning in Higher Education | Noted and staff will be informed.   | HoS   | none                                  | imminent                                |  |
| 11         | Recommendations re<br>Collaborative Provision   | It is an unfortunate recent development that the Industrial Physics programme has been terminated. However, the School wishes for this to be revisited, in the context of ways in which the intake could be improved, and the | HoS   | none                                  | Currently N/A                           | moderate   |

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|            |   | programme accommodated more directly into the CK408 stream.   |  |                                       |   |  |
| 12         | That the School ensures that students are aware of employment opportunities in industry and in careers outside academia:                  | The School arranges for at least one industrial representative to give an annual seminar, and has greatly improved the degree to which it tracks the employment success of its graduates. | School's Seminar<br>Committee, Director of<br>4 <sup>th</sup> Year Studies                                   | none                                  | ongoing                                 | moderate   |
| 13         | That the School broadens the students' transferrable skills and ensures that students can articulate these skills to potential employers; | ,   | The School's Teaching<br>Committee and<br>Learning Committee,<br>Director of 4 <sup>th</sup> year<br>Studies | None currently                        | ongoing                                 | moderate   |
| 14         | The School should have regular student surveys with a particular focus on workload  | The School continues to carry out its staff-student meetings: the systematic use of surveys by all lecturers will be considered at the  | School's Teaching and<br>Learning Committee  | moderate                              | ongoing                                 | moderate   |

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|            |   | future School Teaching Committee meeting.  |   |                                       |  |  |
| 15         | The School should consider offering work placement in all Physics degree programmes             | Work placement is an integral part of the Industrial Physics programme, but otherwise remains extremely challenging within with CK408 programme due to the significant organisational effort involved. This will be revisited once all the UCC Future hires are in situ. | HoS   | New staff hires                       | TBD with staff   | moderate   |
| 16         | The School should re-<br>evaluate the rationalisation<br>of modules to reduce staff<br>workload | Some modules have already been removed from the curriculum (for example PY4101 and PY4126): these may be re-introduced when staffing levels allow.   | School Teaching and<br>Learning Committee               | New staff<br>hires, ongoing           | 2-3 years  | moderate   |
| 17         | The School should consider<br>the learning and adaptations<br>used during Covid-19 to           | Generally, blended learning did not<br>work well for our students, with<br>the exception of the "take home<br>labs" which we are continuing to   | The School's Teaching<br>and Learning<br>Committee, HoS | none                                  | N/A currently, 3<br>years in context of<br>Kane<br>Refurbishment | moderate   |

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|------------|--|--|--|---------------------------------------|-----------------------------|--|
|            | maximise blended learning and lighten workload;                                  | use in our first year. It is possible that the use of blended learning may be revisited once the full impact of the Kane Refurbishment programmes is known (and the effect this will have on access to teaching space) |  |                                       |                             |  |
| 18         | The School to consider increasing the project weighting to more than 10 credits; | The School has not discussed this option yet, but will do so.  | The Schools Teaching and Learning Committee  | unclear                               | TBD                         | moderate   |
| 19         | The School should assess the amount of continuous assessment required per module | The School has already discussed this, and made efforts to both reduce the amount and coordinate the scheduling of the assessments between lecturers.  | The School's Teaching and Learning Committee | none                                  | annually                    | moderate   |
| 20         | That the School constitutes<br>an External Advisory Board                        | Not yet implemented, to be discussed within the School.  | HoS  | None                                  | TBD                         | moderate   |

| For completion by Unit           |                |               |
|----------------------------------|----------------|---------------|
| Head of Unit:                    | Signature:     | Date: 10.1.24 |
| Professor Paul Callanan          | P.ce           |               |
|                                  |                |               |
| Head of College/Functional Area: | Signature:     | Date: 11.1.24 |
| Professor Sarah Culloty          | South Culldry. |               |