



University College Dublin

REVIEW GROUP REPORT

Periodic Quality Review

UCD School of Biology & Environmental Science

June 2022

Accepted by the UCD Governing Authority at its meeting on 21 September 2023

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Key Findings of the Review Group

The Review Group (RG) has identified a number of key findings in relation to areas of good practice in the UCD School of Biology & Environmental Science, and also areas which the RG would highlight as requiring improvement. The main section of this Report sets out all observations, commendations and recommendations of the RG in more detail. An aggregated list of all commendations and recommendations is set out in Appendix 1.

Examples of Good Practice

The RG identified a number of commendations, in particular:

- 2.10 The School has clear and effective organisational structures, reinforced by strong leadership and people management from the Head of School, by the efficiency and experience of the School Office, and by a culture of collegiality among all categories of staff, as well as between staff and students.
- 2.13 SBES is in a strong financial position with substantial reserves that are projected to remain for the five-year plan budget cycle up to 2025/26. The RG commends the School for its success in increasing non-EU student fee income to reverse the budget deficit at the time of the last Quality Review in 2014.
- 4.12 SBES students, both undergraduate and postgraduate, who represented the School at the RG meetings were keen to express their satisfaction with their programmes of study and how academic staff were receptive to any concerns and supportive of their resolution (see recommendation 4.16). All students praised the contribution of the technical staff that supported practical activities associated with modules or project work, in both lab and field environments.
- 5.7 SBES undergraduate degrees use a wide range of assessment and teaching practices to develop core scientific and transferable skills. In particular, the progressive development of both scientific writing skills and core practical skills in each year of the programme is praiseworthy. The introduction of a module in Stage 1 in which the students undertake a short laboratory project in small groups gives an excellent introduction to the key principles of research work.
- 6.8 The RG commends the School for its research activity. All academic staff are research active and publishing in quality academic journals. 75% of academic staff have external funding and among this group are a number with very large grant portfolios.

Prioritised Recommendations for Improvement

The RG would suggest that the following recommendations be prioritised:

- 2.17 The RG recommend the School develop a plan, with the College Finance Manager, to invest a portion of the reserves to leverage investment in equipment and staffing. It is also recommended that each future grant application should include a budget for a piece of equipment and, if funding bodies permit, a portion of staff to be allocated to a research administrator.
- 4.16 Since the University Curriculum Review in 2016, the School has seen a significant change in its module portfolio (see 4.5, re: development of new modules). The diversity and number of modules offered, particularly at Level 4, is demanding on staff time. Consideration should be given to reducing the number of modules, whilst enhancing quality, to provide an adequate and attractive portfolio that can facilitate the strategy for future growth in student numbers.
- 4.17 Assessment maps suggest that many programme learning outcomes are being assessed up to six times. The RG recommends that the School re-evaluates its assessment strategy, focusing on programme, rather than module-level requirements.
- 6.12 All academic staff should aim to secure external funding for research. This is the funding that makes research projects happen and provides extra resources for explorative research. The quality of research should also follow an upward trajectory.
- 6.13 The RG recommend that (a) the Research Committee establish a system to identify areas of critical mass where SBES scientists could form a small number of competitive clusters for strategic grant applications. The clusters in crops and plant science prove this can deliver considerable competitive funds to the School. (b) The Research Committee should nominate a leader for these potential research clusters, and funds should be allocated, or acquired via UCD Seed Funding, to buy out the lead individual's teaching and administration for a defined period, which would be used to (c) develop a research strategy to produce a series of strategic grant applications.

1. Introduction and Overview of UCD School of Biology & Environmental Science

Introduction

- 1.1 This report presents the findings of a quality review of the School of Biology & Environmental Science, University College Dublin, which was undertaken on 21-24 March 2022. The School response to the Review Group Report is attached as Appendix 2.

The Review Framework

- 1.2 Irish Universities have collectively agreed a framework for their quality review and quality improvement systems, which is consistent with both the legislative requirements of the Qualifications and Quality Assurance (Education and Training) Act 2012, and international good practice (e.g. Standards and Guidelines for Quality Assurance in the European Higher Education Area, 2015). Quality reviews are carried out in academic, administrative and support service units.

- 1.3 The purpose of periodic review is to assist the University to assure itself of the quality of each of its constituent units, and to utilise learning from this developmental process in order to effect improvement, including:

- To monitor the quality of the student experience, and of teaching and learning.
- To monitor research activity, including management of research activity; assessing the research performance with regard to: research productivity, research income, and recruiting and supporting doctoral students.
- To identify, encourage and disseminate good practice, and to identify challenges and how to address these.
- To provide an opportunity for units to test the effectiveness of their systems and procedures for monitoring and enhancing quality and standards.
- To encourage the development and enhancement of these systems, in the context of current and emerging provision.
- To inform the University's strategic planning process.
- The output report provides robust evidence for external accreditation bodies.
- The process provides an external benchmark on practice and curriculum.
- To provide public information on the University's capacity to assure the quality and standards of its awards. The University's implementation of its quality procedures

enables it to demonstrate how it discharges its responsibilities for assuring the quality and standards of its awards, as required by the Qualifications and Quality Assurance (Education and Training) Act 2012.

The Review Process

1.4 Typically, the review model comprises four major elements:

- Preparation of a self-assessment report (SAR)
- A visit by a RG that includes UCD staff and external experts, both national and international. The site visit normally will take place over a two or three day period
- Preparation of a review group report that is made public
- Agreement of an action plan for improvement (quality improvement plan) based on the RG report's recommendations. The University will also monitor progress against the improvement plan

Full details of the review process can be found on the UCD Quality Office website: www.ucd.ie/quality.

The Review Group

1.5 The composition of the RG for the UCD School of Biology & Environmental Science was as follows:

- Associate Professor Alexander Thein, UCD School of Classics (Chair)
- Associate Professor Jorie Lagerwey, UCD School of English, Drama & Film (Deputy Chair)
- Professor Liam Dolan, Gregor Mendel Institute of Molecular Plant Biology, Vienna, Austria (Extern)
- Professor Jane Taylor, Lancaster University, UK (Extern)

1.6 The RG undertook a virtual site visit of the School from 21-24 March 2022 and held meetings with the College Principal & Dean of Science; Associate Dean of Science; Head of School; SAR Co-ordinating Committee; academic, research, technical, and professional staff in the School; undergraduate and postgraduate students; employers; and UCD staff in support units that interact with the School. The site visit schedule is included as Appendix 3.

1.7 In addition to the Self-assessment Report, the RG considered documentation provided by the School and the University during the site visit.

1.8 This Review Group Report has been read and approved by all members of the RG.

Preparation of the Self-assessment Report (SAR)

- 1.9 Following a briefing from the UCD Quality Office in March 2021, a Self-assessment Report Coordinating Committee (SARCC) was established by the School. The SARCC represented the key groupings within the School and included an EDI representative and a representative of graduate research students.
- 1.10 The SAR was prepared in the period from March to June and September to November 2021. Questionnaires were circulated to all staff in May 2021, and in September 2021 the research staff were resurveyed, along with graduate research students. A SWOT analysis of all aspects of the School was undertaken at a virtual Away Day in June 2021.
- 1.11 A first draft of the SAR was circulated to the SAR Co-ordinating Committee for comments and revisions in October 2021, and to all academic, technical, administrative and research staff, as well as graduate students, in November 2021. The final version of the SAR was submitted to the UCD Quality Office in December 2021.

The University

- 1.12 University College Dublin (UCD) is a large and diverse university whose origins date back to 1854. The University is situated on a large modern campus about 4 km to the south of the centre of Dublin.
- 1.13 The University Strategic Plan (2020-2024) states that the University's mission is: "to contribute to the flourishing of Dublin, Ireland, Europe and the world through the excellence and impact of our research and scholarship, the quality of our graduates and our global engagement; providing a supportive community in which every member of the University is enabled to achieve their full potential".

The University is currently organised into six colleges and 37 schools:

- UCD College of Arts and Humanities
- UCD College of Business
- UCD College of Engineering and Architecture
- UCD College of Health and Agricultural Sciences
- UCD College of Social Sciences and Law
- UCD College of Science

- 1.14 As one of the largest universities on the island of Ireland, UCD supports a broad, deep and rich academic community in Science, Business, Engineering, Health Sciences, Agriculture, Veterinary Medicine, Arts, Law, and Social Sciences. There are currently more than 33,000 students on our UCD campus, with approximately 18,000 undergraduates, 12,600 postgraduates and 2,200 Occasional students. This includes over 9,500 international students from 152 countries. In addition, UCD has almost 5,200 students studying UCD degree programmes on campuses overseas. Undergraduate degree students have the choice of 38

entry routes on offer via the CAO system, while UCD offers many other options at graduate level.

UCD School of Biology & Environmental Science

- 1.15 UCD's School of Biology & Environmental Science is located in the O'Brien Centre for Science, with laboratories and offices split between Science Centre East and Science Centre West. The School also manages the UCD Rosemount Environmental Research Station in collaboration with the UCD School of Agriculture and Food Science.
- 1.16 The UCD School of Biology & Environmental Science is one of seven schools in the College of Science. It coexists in the College with the School of Biomolecular & Biomedical Science ; the schools collaborate, for example in the undergraduate teaching of Genetics, but they have very different teaching and research objectives, and the RG agrees there is no rationale for amalgamation of the two Schools. The UCD College of Science also includes the Schools of Chemistry; Computer Science; Earth Sciences; Mathematics and Statistics; and Physics.
- 1.17 The School is highly multidisciplinary, with undergraduate programmes in the subject areas of Zoology, Plant Biology, Environmental Biology, Cell & Molecular Biology, and Genetics (co-delivered with the School of Biomolecular and Biomedical Science). It has graduate taught programmes in Biological & Biomolecular, Applied Environmental Science, Environmental Sustainability, Global Change, and Plant Biology & Biotechnology, along with research themes in Environmental Change & Sustainability, Genetics & Evolution, and Cellular & Molecular Biology.
- 1.18 SBES has a strong track record of student recruitment and retention, with the March census of 2021 recording UG FTEs at 363, and total student FTEs at 592. There has been a sustained rise in student FTEs, and this has had a positive impact on School finances. The School was in deficit at the time of the Periodic Quality Review in 2014. It now runs a surplus, with reserves equivalent to 30% of net fee income.
- 1.19 SBES staff are 100% research active, with all academic staff in the School recipients of an Output Based Research Support Scheme (OBRSS) award, and a total publication volume of 129 for 2020, compared with 96 in 2016, and a field-weighted citation impact of 2.43 in 2020, compared with 1.92 in 2016. There has also been a rise in the three-year average of research funding from €3.39M in 2016 to €4.37M in 2020.
- 1.20 The School's QS subject ranking for 2021 is 151-200 for Biological Sciences, no. 2 in Ireland, and 151-200 for Environmental Sciences, no. 1 in Ireland.

- 1.21 SBES staffing is 32 academics, 12.5 technical officers, 3 administrators, and 33 research staff. Since the last Quality Review in 2014 a total of 11 academic staff retired or left UCD for new jobs, and in that period the School hired 15 new academic staff: two as Associate Professor, via the UCD Ad Astra strategic scheme and the SFI Future Research Leader programme; and 13 as Lecturer/Assistant Professor, two of them recruited as UCD Ad Astra Fellows, and two hired to support the School's involvement with the Guangzhou-Dublin International College of Life Sciences and Technology (GDIC). Almost half the academic staff have only been in the School since 2017, and a quarter joined after December 2019, although not all of them are new to UCD.
- 1.22 Four members of the School hold College or University roles (College Principal and Dean of Science; Associate Dean for Study Abroad; Vice-Principal for Graduate Studies; Director, UCD Earth Institute) reflecting the School's engagement with and commitment to the University's strategic objectives and values.
- 1.23 SBES is committed to the principles of Equality, Diversity and Inclusion (EDI), and in 2019 it was awarded an Athena SWAN (Scientific Women's Academic Network) Bronze award for its ongoing commitment to promoting good employment practices for women in science higher education.
- 1.24 The last Periodic Quality Review of the School was undertaken from 31st March to 3rd April 2014. The current review was scheduled for 2019/20 but was deferred due to the Covid-19 pandemic.
- 1.25 The School implemented the main recommendations of the previous Quality Review Group, notably in relation to its management structures, for example with the introduction of a new School Advisory Board, a regular meeting schedule, monthly email updates, and annual away days for teaching and learning, and research.
- 1.26 The School engaged constructively with this Periodic Quality Review, and the RG was pleased to have the opportunity to meet and have productive discussions with so many staff members, students, and stakeholders of the School during the site visit, which was conducted online. The SAR was a model of constructive self-reflection.

2. Organisation and Management

General Comments and Context

- 2.1 The School is led by the Head of School and supported by the Deputy Head of School, along with the School Heads of Teaching and Learning (SHTL); Research, Innovation and Impact (SHRII); Graduate Studies; and Equality, Diversity and Inclusion. All are members of the School Executive, along with representatives from the academic, technical, administrative and research staff, as well as research students.

- 2.2 The School Executive is the main decision-making body and meets at least once or twice a month. It is supported by the School Advisory Board, and by a further eight committees with functions ranging from T&L or EDI to safety, academic integrity, and the School website. Committees or working groups are also created ad hoc.
- 2.3 The SBES School Executive mirrors the structure of the College Executive and the University Management Team (UMT), with one exception: there is a Vice-President for Global Engagement on UMT, and a Vice-Principal International Study for the College of Science, but no School Head of Global Engagement or International Study. There is a School representative on the College International committee, but it is not treated as a School leadership role with representation on the SBES School Executive.
- 2.4 Administrative roles for academic staff members are assigned on the principle of a fixed-term rotation, but in practice this can be a challenge, and the School is exploring how to address the issue.
- 2.5 The School recently introduced a workload model for academic staff to record teaching load, research output, and administrative contribution at School, College, and University level. It is anonymous, and its function is to facilitate the Head of School in the distribution of teaching and management roles in the School. Sabbatical leave is not built into the workload model but is dependent on funding for replacement staff.
- 2.6 Teaching, research, and other activities in SBES are supported by administrative and technical staff, all of whom are integrated into the School's management structures. The system works well, and the RG shares the School's view that it would be detrimental for administrative staff to be removed from the School's reporting line. This is in the context of implementing the digital transformation enabler of UCD's 'Rising to the Future' strategy.
- 2.7 School administration is efficient, but reliant on the institutional knowledge of key personnel. At present there are no role descriptors for academic leadership roles, or documentation for key office functions, although day-to-day practice is informed by University guidelines.
- 2.8 The School finances were in deficit at the time of the last Quality Review in 2014, but student FTEs increased due to the recruitment of non-EU students to GT programmes, and as a result the School has built up significant financial reserves (cf. 1.17). Student FTEs are projected to rise further, but the School is mindful of its deficit in recent years and remains cautious about expenditure.
- 2.9 The School has identified a catalogue of needs, from equipment to new staff, and its financial position means that it is now in a position to invest, to leverage other sources of funding, and to control its own destiny.

Commendations

- 2.10 The School has clear and effective organisational structures, reinforced by strong leadership, vision, and people management from the Head of School, by the efficiency and experience of the School Office, and by a culture of collegiality among all categories of School staff, as well as between staff and students.

- 2.11 There is a strong culture of communication and feedback, with monthly bulletins from the Head of School to all staff, regular updates from the School EDI, T&L, and RII committees, and input to the School Executive from the School Advisory Board.
- 2.12 The RG commends the School's commitment to EDI and its recent award of an Athena SWAN bronze award. In particular, it commends the School's policy of one trimester free of teaching for staff returning from maternity leave, and reduced teaching for new academic staff in their first two years.
- 2.13 SBES is in a strong financial position with substantial reserves that are projected to remain for the five-year plan budget cycle up to 2025/26. The RG commends the School for its success in increasing non-EU student fee income to reverse the budget deficit at the time of the last quality review in 2014.

Recommendations

- 2.14 The RG recommends a review of School organisational structures, with the appointment of a School Head of Global Engagement or International Study, as a leadership role to develop the School's strategy for global impact and international partnerships in line with the College and University priorities. It would also welcome undergraduate student representation on School committees.
- 2.15 The RG recommends the creation of role descriptors for School leadership roles, for example SHTL or SHRIL, along with SOPs to document the key functions of the School Office. It is also recommended that the School works to implement its policy of fixed terms and rotation for academic leadership roles.
- 2.16 Workload is a concern for the academic staff, and the RG recommends that the School works towards the reduction of third-trimester teaching and the introduction of a regular system of research sabbaticals. There is also scope to reduce the number of School committees.
- 2.17 The School should develop a plan, with the College Finance Manager, to invest a portion of the reserves to leverage investment in equipment and staffing. It is also recommended that each future grant application should include a budget for a piece of equipment and a portion of staff time on some applications to be allocated to a research administrator.

3. Staff and Facilities

General Comments and Context

- 3.1 SBES staffing is 32 academics, 12.5 technical officers, 3 administrators, and 33 research staff. The administrative staff in the School Office are all graded AO1, and among the technical staff there are 7 Technical Officers, 4.5 Senior Technical Officers, and one Chief Technical Officer. A turnover and expansion of academic staff since the last Quality Review in 2014 (see 1.20) has resulted in a staff profile with 3 Full Professors, one Professor, 8 Associate Professors, and 20 Lecturers/Assistant Professors. The new appointments include 2 Associate Professors and 13 Lecturers/Assistant Professors. This impacts on the School's ability to allocate key leadership roles (see 2.4).
- 3.2 At the time of the last Quality Review in 2014 there were 26.5 academic staff, 14.5 technical officers, and 3.5 administrators. Two technical posts are currently vacant and due to be filled, but it remains the case that technical staff FTEs have not risen in proportion to the expansion of the academic staff.
- 3.3 The staff gender balance compares well with the other Schools in the College of Science, and with benchmarked institutions: 40% of academic staff are female, as are two of the three Full Professors in the School; the UK norm for departments of biology is 46% female. There is also strong diversity in age profile and nationality.
- 3.4 Staff research interests are diverse, focusing on three main areas: Environmental Change and Sustainability: Informing Policy and Practice; Genetics and Evolution: from Genome to Biome; and Cellular and Molecular Biology: from Genes to Biotechnology.
- 3.5 Technical staff make an invaluable contribution to the School's field- and lab-based teaching and research activities, and the RG found that the technical staff enjoy their teaching work as much as research. They also perform an important cohesive role in the School through their support.
- 3.6 The School Office is run by three senior administrators: Manager of Academic Programmes; Manager of Finance and Online Degrees; and Manager of Graduate Studies, since 2014 there is no School Manager. The School Office is an efficient, close-knit team, but it is understaffed, and the RG found there were constraints on administrative staff taking annual leave.
- 3.7 There are good relations between administrative, academic, technical, and research staff, and there is a positive culture in the School Office which contributes to a supportive environment for students.

- 3.8 New staff are well supported by the School's local induction process, and new academic staff members are assigned a mentor, but it was found that there was no formal induction carried out in line with the UCD Probation Periods Policy. This states that all permanent or temporary staff members, both academic and administrative or technical support staff, should have four meetings with the Head of School or a designated manager during their first year, in the 3rd, 6th, 9th and 11th months of their contracts, with the key points from each meeting recorded, and a confirmation form submitted by the Head of School to UCD HR at the conclusion of the probationary period.
- 3.9 SBES aims to build on its current research excellence to become a major international centre of biological research. The plant growth facilities in Rosemount are good, and support a wide range of research activity, but the laboratory spaces require considerable improvement, and investment is also necessary for large and small equipment. The RG believes that the current plans will go some way to deliver on this strategy, but not if 'value engineering' on Phase 3 of the O'Brien Centre for Science building project results in the removal of critical infrastructure such as greenhouses, aquaria, or single-occupancy offices for academic staff (cf. 9.3).
- 3.10 Most research equipment is available, but it is not always well-maintained and this interrupts experiments. Some large equipment (such as confocal microscopes) lacks dedicated technical support, and this will be an increasing challenge as PIs are likely to win more large pieces of equipment on research grants in the next five years.
- 3.11 Health and Safety communications and updates can pose a challenge. The RG learned that relevant information is not always passed on by academics to researchers in their group. This is a problem for short term visitors, postgraduate students, and 4th year undergraduates.

Commendations

- 3.12 We congratulate the School in developing such an inclusive and friendly environment. Credit goes to everybody at every level of the organisation.
- 3.13 We congratulate SBES for their hiring success since 2014 which has changed the face of the School for the better.
- 3.14 The breadth of disciplines represented in the School is impressive.
- 3.15 The technicians play a pivotal role in the School, and they are happy to be engaged in both teaching and research. Their pivotal role is appreciated by researchers and undergraduates.

Recommendations

- 3.16 Infrastructure is always ageing and needs constant replacement. There needs to be a strategy for developing the best scientific infrastructure that is worthy of the people who work in the School, and for resourcing technical support for the maintenance of pieces of equipment that require a dedicated technician.

- 3.17 The RG recommends that a survey be carried out to identify all key equipment in SBES, as well as items of equipment that are required but not available. A School-level strategy could then be established to replace or purchase equipment, e.g. with applications for equipment grants or the compulsory inclusion of smaller pieces of equipment on all grant applications submitted by SBES. This would allow the School to build a complete, state-of-the-art set of equipment over a three-to-five-year period.
- 3.18 The technician pool should be increased in size to expand the collective skill set and alleviate workload pressure on individuals. New academic staff should be made aware that there are limitations to the technician support they can appropriately request.
- 3.19 Existing School practice around induction should be further developed and formalised for all new academic, research, technical, and administrative staff. The induction process should be conducted by the Head of School or designated manager in line with the UCD Probation Periods Policy.

4. Teaching, Learning and Assessment

General Comments and Context

- 4.1 SBES offers a broad teaching programme at both undergraduate and postgraduate levels. It delivers four Level 8 undergraduate and five Level 9 taught graduate MSc degrees as well as two graduate diplomas and one graduate certificate. The School also co-delivers an undergraduate degree in Genetics with the School of Biomolecular and Biomedical Science (SBBS).
- 4.2 The 143 modules offered across the degree programmes cover broad taxonomic, conceptual and organisational areas of biology, spanning the biological scales from molecules to ecosystems. The graduate taught modules are focused on topics relevant to the markets from which the School recruits a growing community.
- 4.3 Undergraduate students in SBES degrees enter from a common entry science degree (DN200 Science). Numbers of students choosing SBES degrees have risen from 9% in 2014 to 13.65% in the current academic year, suggesting the current programmes are increasingly attractive to incoming cohorts.
- 4.4 In addition, SBES delivers a primarily online distance learning taught graduate programme in Environmental Sustainability that is recruiting very well, and a Summer Abroad Programme for students from the University of California Davis (UC Davis).
- 4.5 All these recent developments (including collaborative provision described in Section 8) have resulted in recruitment beyond what was projected, and this has significantly contributed to current financial stability. It has, however, alongside the recruitment of new staff, also led to an increase in new modules, with 37% of all modules having been developed in the last four years.

- 4.6 Undergraduate teaching has transferred to new teaching laboratories since the last Quality Review, and SBES believes that this has significantly improved the student experience.
- 4.7 The move to online and hybrid delivery due to the COVID-19 pandemic was a steep learning curve for SBES staff and students alike. The School rose to this challenge, as evidenced by the positive comments by students to the Review Group about how well they were supported, how they really enjoy their time in the School, and the content of their programmes.
- 4.8 Student feedback data along with the degree outcomes indicate that SBES students receive an excellent teaching experience from the academic staff and the technical support staff who play a key role in lab-based practical activity.
- 4.9 The students met by the Review Group did identify a number of issues relating to constraints on module and pathway choice in Stages 3 and 4, along with perceived shortcomings in the advice given in Stage 1.
- 4.10 The majority of students praised the quality of their interaction with staff, but some students received a less positive experience when trying to contact and interact with particular staff members.
- 4.11 Some of the undergraduate students met by the Review Group did not know the names of their class representatives, or how to contact them. Some class representatives reported that no issues had been raised with them, suggesting they were not known to the wider student body.

Commendations

- 4.12 SBES students, both undergraduate and postgraduate, who represented the School at the Review Group meeting were keen to express their satisfaction with their programmes of study and how academic staff were receptive to any concerns and supportive of their resolution (see recommendation 4.16). All students praised the contribution of the technical staff that supported practical activities associated with modules or project work, in both lab and field environments.
- 4.13 During COVID-19 all students received some face-to-face laboratory training and all final year undergraduates and taught graduate students were given the opportunity to do a laboratory or field-based research project.

Recommendations

- 4.14 The Review Group recommends that the School explores better ways of hearing the student voice. We believe this is an issue of visibility and would encourage the School to identify ways in which class representatives are more visible and easier to contact, probably through digital means. In addition, we would like the undergraduate body to be represented on appropriate School committees (cf. 2.14).

- 4.15 Degree outcomes have improved, notably during the COVID-19 pandemic, but it is unclear if the School fully understands the basis for the higher degree classifications. The balance of assessment changed during the pandemic from examinations in favour of coursework. The School should reflect on whether such changed weightings should continue in the future, and the likely impact on programme outcomes (see 7.19, on authentic assessment).
- 4.16 Since the University Curriculum Review in 2016, the School has seen a significant change in its module portfolio (see 4.5, re: development of new modules). The diversity and number of modules offered, particularly at Level 4, is demanding on staff time. Consideration should be given to reducing the number of modules, whilst enhancing quality, to provide an adequate and attractive portfolio that can facilitate the strategy for future growth in student numbers.
- 4.17 Assessment maps suggest that many programme learning outcomes are being assessed up to six times. The RG recommends that the School re-evaluates its assessment strategy, focusing on programme- rather than module-level requirements.
- 4.18 Undergraduate students highlighted the need for improved information and advice on entry to the common entry DN200 Science programme about potential constraints on module and pathway choice in Stages 3 and 4, as a consequence of module choice in Stages 1 and 2. We recommend the School reviews its advice, and through student consultation, develops better guidance for future student cohorts.

5. Curriculum Development and Review

General Comments and Context

- 5.1 A range of new programmes and collaborations to deliver teaching and learning have been developed and launched, with 37% of the 143 modules on offer in 2021/22 developed in the last four years (see Section 4).
- 5.2 The School has moved into distance learning provision, and the pandemic has driven a move to provide more blended and online delivery in the more recent past.
- 5.3 The School has successfully collaborated with other Schools in the College to contribute to cross-College programmes increasing its student FTEs and income, whilst at the same time seeing an organic growth in the total number of modules delivered, partly aligned to recent staffing changes. In total, 112 new modules have been introduced since the last Quality Review in 2014, including core modules on high-quality scientific writing skills for all undergraduates in Stages 1-4.
- 5.4 Ringfencing of the student number target by UCD to recruit students entering via the Higher Education Access Route (HEAR) or the Disability Access Route to Education (DARE) routes has increased the number of undergraduate students entering SBES degrees through widening participation to ~40% of the total intake.

- 5.5 Incompletion rates for undergraduate students in SBES have been 3% over the last 5 years suggesting SBES is very good at identifying students at risk and supporting them to complete their studies whilst at the same time increasing recruitment of students from non-traditional backgrounds.
- 5.6 Through the Athena SWAN project the School has identified a higher rate of incompletion for female PhDs compared with male PhD students.

Commendations

- 5.7 SBES undergraduate degrees use a wide range of assessment and teaching practices to develop core scientific and transferable skills. In particular, the RG commends the progressive development of both scientific writing skills and core practical skills in each year of the programme. The Stage 1 module, in which the students undertake a short laboratory project, gives an excellent introduction to the key principles of research work.
- 5.8 Retention statistics, alongside increases in the number of widening participation students recruited, suggest that the curriculum design and delivery enables undergraduate students to successfully complete their studies and enhances their graduate opportunities.

Recommendations

- 5.9 SBES has indicated that it will retain the elements of online delivery that worked well during the pandemic, but there is no apparent trajectory for moving further into a digital delivery model. As we emerge from the pandemic, we encourage SBES to consider a holistic strategy for teaching and learning: to consider the need for increased student numbers, the balance of in-person and online provision, consortial provision with other schools, and the balance of on- and off-shore delivery to enable attractive programmes to be delivered in an effective and efficient manner, whilst enabling staff to deliver on their research ambitions.
- 5.10 The RG recommends that SBES undertakes a review to better understand the causes behind the differential incompletion rates between male and female PhD students and then develop a strategy to support *all* PhD students to complete their studies in a timely and successful manner.

6. Research Activity

General Comments and Context

- 6.1 The School's ambition is to develop its profile as a leading European centre for integrative biology and environmental science, and for research into the processes that drive biological and environmental change. Research activity ranges from the molecular and genetic, through the individual level up to ecosystem level.
- 6.2 SBES research is structured under three key themes: Cellular and Molecular Biology; Genetics and Evolution; and Environmental Change and Sustainability. The Theme Leads report to the School research committee, and the School Head of Research, Innovation and Impact reports to and from the College research committee. Research culture in the School is fostered by a weekly research seminar series with invited speakers, a monthly researchers' lunch, and an annual Researchers' Away Day.
- 6.3 The School has strong links with the Conway Institute in its biomolecular research and the Earth Institute in its environmental research. SBES staff have also collaborated successfully with UCD Nova in commercialisation and knowledge transfer activity, in particular with the start-up company EpiCapture.
- 6.4 Academic staff in SBES are 100% research active (this figure was 87% at the time of the last Quality Review in 2014) and publish in high-impact scientific literature. Publication volume is high, and scores well against the metrics of citation impact, international collaboration, and open access.
- 6.5 Research excellence in SBES has been driven by a dramatic increase in external grant income from €4.3 million in 2016/17 to €6.42 million in 2019/20. This level of external grant capture is particularly impressive, but the focus is on applied research since fundamental, discovery research is not well supported in Ireland.
- 6.6 SBES researchers maintain a steady rate of grant proposal submission, but the process is ad hoc, dependent on individual initiative, rather than systematic and coordinated by the School research committee. A system for informal grant reviewing could be set up with the aim of improving the quality of grant applications. While this would be useful for all submissions, it would be particularly important for grants to ERC schemes where expertise could be brought in to help with the improvement process.
- 6.7 PhD students make a major contribution to the research in SBES, and there is also evidence that they have a considerable teaching load as demonstrators – between six hours a week, or 70 hours per trimester. The panel is concerned that this workload compromises the research activities of these students. The reasons should be investigated and decreasing the workload should be considered.

Commendations

- 6.8 The RG commends the School for its research activity. All academic staff are research active and publishing in quality academic journals. 75% of academic staff have external funding and among this group are a number with very large grant portfolios.
- 6.9 Technicians make an invaluable contribution to research and this is appreciated throughout the School. Graduate research students value the support they receive from technicians. The undergraduates also highlighted the important role technicians have in making them feel at home.
- 6.10 PhD students are very positive about their research experience. They are well supported by academic and administrative staff, and they value their Research Studies Panels (RSP) and the management of stage transfer assessments, the timing of which the School Office schedules and communicates well in advance.
- 6.11 The RG felt that SBES research activity is particularly strong given some of the constraints of the research facilities, cf.3.9. There have been commercialisation and innovation successes. This is excellent for a non-biomedical biology department.

Recommendations

- 6.12 All academic staff should aim to secure external funding for research. This is the funding that makes research projects happen and provides extra resources for explorative research. The quality of research should also follow an upward trajectory.
- 6.13 The RG recommend that (a) the Research Committee establish a system to identify areas of critical mass where SBES scientists could form a small number of competitive clusters for strategic grant applications. The clusters in crops and plant science prove this can deliver considerable competitive funds to the School. (b) The Research Committee should nominate a leader for these potential research clusters, and funds should be allocated, or acquired via UCD Seed Funding, to buy out the lead individual's teaching and administration for a defined period, which would be used to (c) develop a research strategy to produce a series of strategic grant applications.
- 6.14 The RG recommends that the University should continue to increase the proportion of grant overhead that returns to the School. We hope this can return to pre-pandemic levels as soon as possible.
- 6.15 There is a need for the School to develop an implicit innovation/impact/commercialization strategy along with supporting processes to deliver the strategy. This should align with a College strategy.

- 6.16 PhD students receive different stipends depending on their funding source. In the interest of equity, the RG feels it would be desirable for the School to top up lower stipends to ensure all students receive the same.

7. Management of Quality and Enhancement

General Comments and Context

- 7.1 Academic quality is evaluated by the School committees with responsibility for Teaching and Learning, Graduate provision, EDI, and Health and Safety. These align with College and University committees.
- 7.2 All categories of staff (academic, technical, administrative and research) as well as research students are represented on these committees.
- 7.3 The Heads of Subject from the four undergraduate degrees and the Directors of the five MSc programmes also serve on the College of Science Taught Programmes Board. This structure facilitates the sharing of information from a top down (College/University) and bottom-up (SBES staff and students) perspective.
- 7.4 Quality of teaching is assessed in a number of ways including student feedback, External Examiner reports, student progression data, College-level programme review, and feedback from external stakeholders.
- 7.5 The School holds an Annual Teaching and Learning Away-Day that is well attended.
- 7.6 The School notes that there has been an increase in the points achieved by students in their entry qualifications for the common entry Science degree DN200 at UCD, from circa 460 in 2011 to circa 560 in 2021.
- 7.7 Since September 2020, all demonstrators are issued with contracts that stipulate the number of hours and weeks they will work each trimester to align with UCD and government policy.

Commendations

- 7.8 The higher entry qualification of undergraduates into the School appears to be contributing to degree outcomes which are increasingly positive.
- 7.9 The Annual Teaching and Learning Away-Day provides an opportunity for staff to think more strategically about teaching and learning.
- 7.10 A growing number of staff have acquired formal teaching qualifications and others are publishing on teaching and learning activities.
- 7.11 SBES has addressed the increasing problem of academic misconduct by integrating the UCD policy on plagiarism into a School Plagiarism Protocol; it has been recognised as an exemplar of good practice, and it has been disseminated across other Schools in UCD.

Recommendations

- 7.12 The RG recommends that the School conducts an audit of academic staff who have achieved a teaching qualification and works with this group of people to facilitate engagement of staff in thinking more about quality enhancement and innovation, with the aim of generating a community of practice focused on scholarship of teaching and learning.
- 7.13 SBES has a Teaching and Learning Away Day, yet there appears to be limited opportunities to identify innovation, and to highlight and share this information amongst staff. This could be remedied by having an online space for staff to post working papers, blogs, and videos about their teaching and learning development activities.
- 7.14 Further sharing of good practice could happen by introducing peer observation of teaching and a peer-review system for module structure and content.
- 7.15 The graduate student voice is already heard at School and College committees, and we would encourage SBES to consider the introduction of undergraduate student representation on such committees as well (cf. 2.14).
- 7.16 The School should reflect on the positive contribution to student outcomes from the move to online delivery during the pandemic and develop a strategy for how to benefit from online or hybrid delivery in the future, in particular to assess if the academic staff have the required skills that would enable new distance learning programmes to be developed should the need or opportunity arise. This could offer a means of enabling student growth without requiring additional teaching spaces.
- 7.17 The RG supports the School's suggestion that they will advocate for an increase in the level of support (advice and training) for staff at College and University level for online delivery, e.g. additional educational technologists as well as an adequate supply of equipment.
- 7.18 The RG found varying levels of background expertise and training of teaching assistants in some modules. This should be addressed by requiring a timely and appropriate induction to the materials to be taught, and if possible, have greater academic input in the assignment of teaching assistants to modules, to better match their disciplinary knowledge to the subject to be taught.
- 7.19 Feedback from employers, in particular those hosting work placements, suggests that while the subject specific knowledge of SBES students is excellent, they sometimes lack the skills to apply this in a workplace setting. We recommend that SBES reflects on the extent to which the use of examinations can be replaced by authentic assessments that test students on the application of their knowledge.

8. Collaborative Educational Provision

General Comments and Context

- 8.1 SBES has strong collaborative educational links within UCD. It is a key contributor to the new cross-disciplinary degree in Sustainable Development (DN240) and it collaborates with the School of Biomolecular and Biomedical Science (SBBS) in the delivery of an MSc in Biological and Biomolecular Science - Negotiated Learning (BBNL).
- 8.2 SBES also collaborates with the UCD School of Agriculture and Food Science in a partnership with South China Agricultural University (SCAU) to deliver a number of degree programmes in the newly-formed Guangzhou-Dublin International College of Life Sciences and Technology (GDIC). In this partnership SBES contributes eight modules to three degrees in Horticulture, Biological Sciences and Food Safety & Security. Enrolment in each of the three programmes is around 50 to 60 students per year.
- 8.3 The collaboration with GDIC has allowed SBES to hire three new members of academic staff, who will spend one trimester in SCAU and the rest of the year in UCD once Covid-restrictions are lifted. The relationship with SCAU is also expected to give rise to collaborative research programmes.
- 8.4 SBES has a number of additional international educational collaborations: a joint MSc with the Justus-Liebig University in Giessen, Germany; a Summer Abroad programme with the University of California Davis, USA; and a freshman programme with Northeastern University, Boston, USA.
- 8.5 Memoranda of agreement have been signed with Pwani University, Kenya and Addis Ababa University, Ethiopia to facilitate fieldwork projects for UCD students in Kenya, exchange visits by Pwani University students to UCD, and SBES co-supervision of PhD students from Addis Ababa University.
- 8.6 SBES also has partnerships with two State agencies, Inland Fisheries and Teagasc, to facilitate research projects for undergraduate and taught graduate students as well as School research projects.

Commendations

- 8.7 The RG commends the School on the range of collaborative educational partnerships set up since the last periodic Quality Review, in particular the new partnership with GDIC, which has generated new income streams and allowed the School to appoint three new academic staff members.
- 8.8 Individual academics are also to be commended for using their research networks to set up international collaborations to facilitate student mobility and enhance the global educational experience of UCD students.

Recommendations

- 8.9 The RG recommends the development of a School strategy for international partnerships and global impact, under the leadership of a School Head of Global Engagement or International Study (see 2.14) to ensure that new collaborations focus not just on revenue but equally on the benefits for staff research and the UCD student experience.
- 8.10 The School strategy for the next phase of international educational collaboration should also focus on sustainable student growth. In particular, SBES should reflect on its strategy for how to exploit its experience in online delivery to develop new distance learning programmes (cf. 7.16).

9. Support Services

General Comments and Context

- 9.1. The SAR, the supporting staff surveys, and our conversations with staff and stakeholders all reflected the School's strong relationships with support services at College and University levels. The SAR enumerated the many support services and singled out the cleaning staff and Safety, Insurance, Operational Risk and Compliance Office (SIRC) as key to supporting the School to continue field work and lab teaching during Covid-19 lockdowns and restrictions. Overall the School framed their relationship with these support services very positively, and this was confirmed in the RG's meeting with representatives from UCD Estates, Access and Lifelong Learning, UCD Global, the Library, and Registry along with the Science Operations Officer.
- 9.2 The SAR highlighted staff satisfaction with the support from UCD Research but noted that it is under-resourced, and the RG found that UCD Research and the Research Finance Office are both aware of the resource constraints on the support they are able to provide, in particular in the transition from pre-award to post-award stage in a grant's lifecycle. A local research administrator would reduce problems or delays and increase the number of grants that are submitted.
- 9.3 The RG found that one major area of concern for all staff in the School was in relation to the decant, refurbishment, and ultimate move into a new space as part of Phase 3 of the O'Brien Centre for Science building project. The concerns seem to be the product of communication not being as regular or clear as it could be in providing assurance to those working in the School. The RG acknowledges the concern that the decant poses a risk to the School's strong culture of collegiality. For additional concerns in relation to potential 'value engineering', cf. 3.9.

Commendations

- 9.4 The RG commends SBES for its positive engagement with all support services, and notes that it was singled out for praise by UCD Access and Lifelong Learning for its commitment to Open Learning and student recruitment, in particular its volunteer student Access Leaders, and by the Library for its engagement with its open access publishing initiatives.
- 9.5 SBES and UCD Estate Services are to be commended for their exceptional work supporting the continuation of research and teaching that could not be provided remotely during Covid-19.

Recommendations

- 9.6 Continue the strong working relationships with support services and strengthen the level of communications between UCD Estate Services and the School in relation to the decant and refurbishment of the School's space.
- 9.7 The RG recommends that SBES appoints a School Research Administrator to assist PIs in pre- and post-award grant management.

10. External Relations

General Comments and Context

- 10.1 SBES is outward-facing, and its staff engage with the general public and schools in a range of activities such as the UCD Festival, radio or television interviews, judging school competitions such as SciFest or the BT Young Scientist and Technology Exhibition, and transition year work placements. The initiative is organic, but for established activities the workload is managed at School level. All activities are sensible and appropriate for the sector, and there is evidence of considerable long-standing success.
- 10.2 SBES has a number of study abroad links for student mobility, and an established programme of internships for undergraduates and taught graduate students.
- 10.3 SBES staff are engaged with national and international scientific societies and advisory groups in a variety of activities from external examining, conference organisation, or grant review to external committee and board membership. These activities are a measure of the prestige of the academic staff.
- 10.4 As part of the site visit the RG met with a number of external stakeholders, while overall feedback was positive, opportunities were noted to further enhance school supports for external internships.

Commendations

- 10.5 The RG commends the School for the broad range of its external engagement and outreach activities, notably its work with second-level schools in programmes such as the Inspiring the Future Ireland initiative.
- 10.6 SBES engagement with the public is important, and its success is exemplified in the Evolution Garden. Describing the development of the garden and its use in education in an academic publication is commendable.
- 10.7 The Biological Society works well with the School in building community for undergraduates and using social media to promote the subject to the wider public. The Society's success is a sign of a responsible and engaged student body.

Recommendations

- 10.8 There is a need for a concise strategy for external relations and a plan to deliver that strategy. It should be consistent with the College and University strategy.
- 10.9 To give students the maximum benefit from the experience, SBES might consider how to help both graduate and undergraduate students prepare for internships. The School could also be more proactive in advertising external internships to students.
- 10.10 The School might also consider engaging with a number of internship-providers to identify their needs. This would help manage the expectations of both external providers and student interns.
- 10.11 UCD has a long tradition of engaging with alumni. A defined and coherent strategy for how SBES might contribute to this would be beneficial.

UCD School of Biology & Environmental Science – Full List of Commendations and Recommendations

This Appendix contains a full list of commendations and recommendations made by the Review Group for the UCD School of Biology & Environmental Science and should be read in conjunction with the specific chapter above. *(Please note that the paragraph references below refer to the relevant paragraphs in the report text)*

2. Organisation and Management

Commendations

- 2.10 The School has clear and effective organisational structures, reinforced by strong leadership, vision, and people management from the Head of School, by the efficiency and experience of the School Office, and by a culture of collegiality among all categories of School staff, as well as between staff and students.
- 2.11 There is a strong culture of communication and feedback, with monthly bulletins from the Head of School to all staff, regular updates from the School EDI, T&L, and RII committees, and input to the School Executive from the School Advisory Board.
- 2.12 The RG commends the School's commitment to EDI and its recent award of an Athena SWAN bronze award. In particular, it commends the School's policy of one trimester free of teaching for staff returning from maternity leave, and reduced teaching for new academic staff in their first two years.
- 2.13 SBES is in a strong financial position with substantial reserves that are projected to remain for the five-year plan budget cycle up to 2025/26. The RG commends the School for its success in increasing non-EU student fee income to reverse the budget deficit at the time of the last QR in 2014.

Recommendations

- 2.14 The RG recommends a review of School organisational structures, with the appointment of a School Head of Global Engagement or International Study, as a leadership role to develop the School's strategy for global impact and international partnerships in line with the College and University priorities. It would also welcome undergraduate student representation on School committees.
- 2.15 The RG recommends the creation of role descriptors for School leadership roles, for example SHTL or SHRII, along with SOPs to document the key functions of the School Office. It is also recommended that the School works to implement its policy of fixed terms and rotation for academic leadership roles.

- 2.16 Workload is a concern for the academic staff, and the RG recommends that the School works towards the reduction of third-trimester teaching and the introduction of a regular system of research sabbaticals. There is also scope to reduce the number of School committees.
- 2.17 The School should develop a plan, with the College Finance Manager, to invest a portion of the reserves to leverage investment in equipment and staffing. It is also recommended that each future grant application should include a budget for a piece of equipment and a portion of staff time on some applications to be allocated to a research administrator.

3. Staff and Facilities

Commendations

- 3.12 We congratulate the School in developing such an inclusive and friendly environment. Credit goes to everybody at every level of the organisation.
- 3.13 We congratulate SBES for their hiring success since 2014 which has changed the face of the School for the better.
- 3.14 The breadth of disciplines represented in the School is impressive.
- 3.15 The technicians play a pivotal role in the School, and they are happy to be engaged in both teaching and research. Their pivotal role is appreciated by researchers and undergraduates.

Recommendations

- 3.16 Infrastructure is always ageing and needs constant replacement. There needs to be a strategy for developing the best scientific infrastructure that is worthy of the people who work in the School, and for resourcing technical support for the maintenance of pieces of equipment that require a dedicated technician.
- 3.17 The RG recommends that a survey be carried out to identify all key equipment in SBES, as well as items of equipment that are required but not available. A School-level strategy could then be established to replace or purchase equipment, e.g. with applications for equipment grants or the compulsory inclusion of smaller pieces of equipment on all grant applications submitted by SBES. This would allow the School to build a complete, state-of-the-art set of equipment over a three-to-five-year period.
- 3.18 The technician pool should be increased in size to expand the collective skill set and alleviate workload pressure on individuals. New academic staff should be made aware that there are limitations to the technician support they can appropriately request.

- 3.19 Existing School practice around induction should be further developed and formalised for all new academic, research, technical, and administrative staff. The induction process should be conducted by the Head of School or designated manager in line with the UCD Probation Periods Policy.

4. Teaching, Learning and Assessment

Commendations

- 4.12 SBES students, both undergraduate and postgraduate, who represented the School at the Review Group meeting were keen to express their satisfaction with their programmes of study and how academic staff were receptive to any concerns and supportive of their resolution (see recommendation 4.16). All students praised the contribution of the technical staff that supported practical activities associated with modules or project work, in both lab and field environments.
- 4.13 During COVID-19 all students received some face-to-face laboratory training and all final year undergraduates and taught graduate students were given the opportunity to do a laboratory or field-based research project.

Recommendations

- 4.14 The Review Group recommends that the School explores better ways of hearing the student voice. We believe this is an issue of visibility and would encourage the School to identify ways in which class representatives are more visible and easier to contact, probably through digital means. In addition, we would like the undergraduate body to be represented on appropriate School committees (cf. 2.14).
- 4.15 Degree outcomes have improved, notably during the COVID-19 pandemic, but it is unclear if the School fully understands the basis for the higher degree classifications. The balance of assessment changed during the pandemic from examinations in favour of coursework. The School should reflect on whether such changed weightings should continue in the future, and the likely impact on programme outcomes (see 7.19, on authentic assessment).
- 4.16 Since the University Curriculum Review in 2016, the School has seen a significant change in its module portfolio (see 4.5, re: development of new modules). The diversity and number of modules offered, particularly at Level 4, is demanding on staff time. Consideration should be given to reducing the number of modules, whilst enhancing quality, to provide an adequate and attractive portfolio that can facilitate the strategy for future growth in student numbers.
- 4.17 Assessment maps suggest that many programme learning outcomes are being assessed up to six times. The RG recommends that the School re-evaluates its assessment strategy, focusing on programme- rather than module-level requirements.

- 4.18 Undergraduate students highlighted the need for improved information and advice on entry to the common entry DN200 Science programme about potential constraints on module and pathway choice in Stages 3 and 4, as a consequence of module choice in Stages 1 and 2. We recommend the School reviews its advice, and through student consultation, develops better guidance for future student cohorts.

5. Curriculum Development and Review

Commendations

- 5.7 SBES undergraduate degrees use a wide range of assessment and teaching practices to develop core scientific and transferable skills. In particular, the RG commends the progressive development of both scientific writing skills and core practical skills in each year of the programme. The Stage 1 module, in which the students undertake a short laboratory project, gives an excellent introduction to the key principles of research work.
- 5.8 Retention statistics, alongside increases in the number of widening participation students recruited, suggest that the curriculum design and delivery enables undergraduate students to successfully complete their studies and enhances their graduate opportunities.

Recommendations

- 5.9 SBES has indicated that it will retain the elements of online delivery that worked well during the pandemic, but there is no apparent trajectory for moving further into a digital delivery model. As we emerge from the pandemic, we encourage SBES to consider a holistic strategy for teaching and learning: to consider the need for increased student numbers, the balance of in-person and online provision, consortial provision with other schools, and the balance of on- and off-shore delivery to enable attractive programmes to be delivered in an effective and efficient manner, whilst enabling staff to deliver on their research ambitions.
- 5.10 The RG recommends that SBES undertakes a review to better understand the causes behind the differential incompleteness rates between male and female PhD students and then develop a strategy to support *all* PhD students to complete their studies in a timely and successful manner.

6. Research Activity

Commendations

- 6.8 The RG commends the School for its research activity. All academic staff are research active and publishing in quality academic journals. 75% of academic staff have external funding and among this group are a number with very large grant portfolios.
- 6.9 Technicians make an invaluable contribution to research and this is appreciated throughout the School. Graduate research students value the support they receive from technicians. The undergraduates also highlighted the important role technicians have in making them feel at home.
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- 10.11 UCD has a long tradition of engaging with alumni. A defined and coherent strategy for how SBES might contribute to this would be beneficial.

School response to Quality Review Group report

The School of Biology & Environmental Science found the task of developing the Self-assessment Report a valuable reflective exercise, which facilitated the School to review its position from a number of perspectives, highlight and confirm our strengths and opportunities, identify areas of good practice and evaluate our weaknesses and challenges in a systematic way. The Review Group Site Visit was a positive and constructive experience. We welcome the endorsement of the Review Group for our activities through commendations and will carefully consider the recommendations during the Quality Improvement Planning process.

There was a high level of engagement from all staff categories and from the student community, both in compiling the Self-assessment Report and in interacting with the Review Group during the site visit. The School wishes to thank the Review Group for their time, expertise and constructive comments, both at the visit and in their helpful Report.

We are in the process of formulating a plan to address the recommendations in the Quality Review Report, and many actions are already underway. These include recruitment of additional administrative and technical staff to support the increased numbers of academic staff and students in the School, payment of consistent PhD stipends across the School, developing a plan to strategically spend School financial reserves including appointing an administrative staff member to support research activities in the School and addressing the level of assessment in some modules.

With specific reference to the prioritised recommendations identified by the Review Group, the School's initial proposals/comments are outlined below:

- 1) *The School should develop a plan to invest a portion of the reserves to leverage investment in equipment and staffing and each future grant application should include a budget for a piece of equipment and, if funding bodies permit, a portion of staff to be allocated to a research administrator. (2.17)*

Comment/proposal

The School has already initiated discussions with the College Finance Manager to invest a portion of the School reserves in staffing and for the purchase of equipment and we will develop a plan to use reserves to leverage further funds. We will also consider how to ensure all future grant submissions have a contribution towards admin or equipment

- 2) *Consideration should be given to reducing the number of modules, whilst enhancing quality, to provide an adequate and attractive portfolio that can facilitate the strategy for future growth in student numbers. (4.16)*

Comment/proposal

The School will review its module offerings in the light of this recommendation. It should be noted that the large portfolio of modules in the School reflects the diversity of topics taught across the nine programmes the School delivers and our service teaching commitments. Therefore, maintaining an attractive portfolio while enhancing quality is a significant challenge if we reduce the number of modules we deliver. Many are Level 4 modules for final year BSc and MSc students and focus on the academic staff member's research area. They provide our students with the opportunity to select

topics that fit their interests and career goals, as well as providing a more interactive, small group, learning environment and typically involve less staff time and more directed independent student learning. Reducing the range of modules may impact the attractiveness of our programmes but we will certainly review our module portfolio as part of our Quality Improvement Process. Appointment of new staff should reduce staff teaching loads.

- 3) *The School should re-evaluate its assessment strategy, focusing on programme, rather than module-level requirements. (4.17)*

Comment/proposal

The School has already initiated a review of all assessments required for each module delivered by the School and had a session on programme level assessment at our recent annual Teaching and Learning day (14th June 2022). Once the data have been collated a full review of the School assessment strategy and how it maps to programmes outcomes will be undertaken as part of the Quality Improvement Plan.

- 4) & 5) *All academic staff should aim to secure external funding for research facilitated by the establishment of a small number of competitive clusters that target strategic grant applications. A leader for these potential research clusters whose teaching and administration is bought out for a defined period, should be nominated and lead the development of a research strategy to produce a series of strategic grant applications. (6.12 & 6.13)*

Comment/Proposal

The strategy of forming clusters to strategically target research funding was widely welcomed by academic staff in SBES. A process to facilitate this will be developed as part of our Quality Improvement Plan.

APPENDIX 3

UCD School of Biology & Environmental Science

Quality Review Site Visit: 21-24 March 2022



TIMETABLE

Monday 21 March 2022	
09.30	Virtual Meeting Room opened (UCD Quality Office Lead)
09.45-10.15	Review Group only – prep
10.15-11.00	College Principal
11.00-11.30	Private meeting of Review Group
11.30-12.15	Head of School
12.15-12.45	Review Group only – Key observations and break
12.45-13.30	Discussion of Finances - Head of School, School Manager, CFM
13.30-13.45	Review Group only- Key observations
13.45-14.15	Programme Dean
14.15-15.30	Review Group only – Key observations & late Lunch Break
15.30-16.15	SAR Co-ordinating Committee
16.15-16.45	Review Group only – Key observations
16.45-17.30	School Research Committee - primary focus on research
17.30-17.45	Review Group only – Key observations and wrap up

Tuesday 22 March 2022	
09.00-09.15	Private meeting of Review Group
09.15-10.00	RG meet with representative group of faculty staff – primary focus on Teaching and Learning and Curriculum issues
10.00-10.30	Review Group only – Key observations & break
10.30-11.15	Representative for School EDI Committee, Health and Safety
11.15-11.45	Review Group only – Key observations & break
11.45-12.15	Professional Staff
12.15-12.45	Review Group only – Key observations & break
12.45-13.30	Research Funded Staff
13.30-14.15	Review Group only – Key observations & break for Lunch
14.15-14.30	Review Group only – Prep for afternoon
14.30-15.00	Technical Staff
15.00-15.30	Review Group only – Key observations & break
15.30-16.00	Newly Appointed Staff
16.00-16.30	Review Group only – Key observations & break
16.30-17.30	External Stakeholder meeting e.g. professional and accrediting bodies and placement partners; employers/Alumni
17.30-17.45	Key observations and wrap up

Wednesday 23 March 2022

09.00-09.15	Private meeting of Review Group
09.15-10.00	School support service representatives (e.g. Registry, Access, Global)
10.00-10.30	Review Group only – Key observations & break
10.30-11.00	UCD Research Representatives
11.00-13.00	Review Group only – Key observations & Extended Break
13.00-13.15	Review Group preparation for afternoon
13.15-14.00	Representative group of Undergraduate students
14.00-14.30	Review Group only – Key observations & break
14.30-15.00	School Graduate Studies Committee
15.00-15.30	Key observations & break
15.30-16.15	Representatives of Research and Taught Postgraduate students, Recent Graduates
16.15-16.45	Review Group only – Key observations & wrap up

Thursday, 24 March 2022

09.45-10.00	Additional Meeting – Director of Financial Management UCD Finance
10.30-11.00	Additional Sweep up meeting with Head of School
11.00-11.15	Review Group break
11.00-11.30	Review Group only – Report Drafting and preparation for Exit Presentation
13.15-13.45	Review Group break
13.45-14.00	Review Group only –preparation for Exit Presentations
14.00-14.15	Review Group feedback initial outline commendations and findings College Principal; UCD Director of Quality
14.15-14.30	Review Group break
14.30-14.45	Review Group feedback initial outline commendations and findings Head of School; UCD Director of Quality
14.45-15.15	Review Group only – final preparation for exit presentation and Transition to Exit presentation
15.15-15.45	Exit Presentation to College Principal, Head of School; all School staff; and UCD Director of Quality
15.45-16.15	Review Group only – Remote Site Visit close out & next steps