

## UNIVERSITY OF GLASGOW

### Academic Standards Committee – 19 May 2017

#### Periodic Subject Review: Review of the School of Life Sciences held on 2 and 3 March 2017

Catherine H Omand, Clerk to the Review Panel

##### Review Panel:

Professor Frank Coton	Vice Principal (Academic and Educational Innovation) Panel Convener
Professor Gavin Brown	University of Liverpool, External Subject Specialist
Professor Jane Owen-Lynch	University of Huddersfield, External Subject Specialist
Professor Nick Hill	Senate Assessor on Court
Mr Liam Bergin	Student member
Professor Jeremy Bagg	School of Medicine, Dentistry and Nursing, Cognate member
Dr Matthew Williamson	Learning Enhancement and Academic Development Service
Mrs Catherine Omand	Senate Office and Clerk to the Panel

## 1. Introduction

- 1.1 The School of Life Sciences is one of three Schools in the College of Medical, Veterinary and Life Sciences (MVLS) formed in 2010, following University restructuring. The College of MVLS also has seven Research Institutes (RIs) and although the School has responsibility for all undergraduate degrees, teaching is also undertaken by RIs.
- 1.2 The School was last reviewed in October 2011 when the School was commended for maintaining the quality of the student experience through a period of significant change. Recommendations arising at that Review had all been satisfactorily addressed.
- 1.3 This Review only considers undergraduate provision. Postgraduate Taught (PGT) provision is arranged by PGT clusters under the College of MVLS structure and therefore PGT programmes will be reviewed by cluster.
- 1.4 Preparation of the Self Evaluation Report (SER) was undertaken by a PSR working group, led by the Head of School. The Group consisted of key academic and administrative staff including Deputy Head of School, Head of School Administration, Head of Assessment and Feedback, Chief Adviser, Senior Teaching and Quality administrator and the Student Support administrator. All staff members had been informed of the PSR process at the School Away Day on 6 September 2016 and it was discussed at School Council on 27 October 2016 and staff comments were sought. The PSR process was also drawn to the attention of Student:Staff Liaison Committees.

- 1.5 The Review Panel met with the Head of School, Professor Simon Guild, Deputy Head of School, Dr Iain Johnstone, Head of Assessment and Quality Assurance, Dr Joe Gray and Head of School Administration, Mrs Lillias Robinson (This group is referred to below as “the Management Team”) and the Dean (Learning and Teaching) for the College of MVLS, Professor Jill Morrison. They also met with 21 members of academic and administrative staff, 9 early career staff, 25 undergraduate students, covering all four degree groups, and 2 Graduate Teaching Assistants.

## 2. Context and Strategy

### 2.1 Staff

The School of Life Sciences currently has 51 academic staff (3 posts currently vacant and undergoing recruitment). Of the 48, 18 are Research and Teaching and 30 are Learning and Teaching. It has 15 Management, Professional and Administrative (MPA) staff, including two short-term appointments (six month contracts only). Two posts were currently vacant but not open for recruitment. There were 30 Technical or Operational staff plus one vacant post currently not open for recruitment.

### 2.2 Students

Individuals enrolled on one or more courses at each level	class enrolment (headcount)	FTE
Level 1	833	272
Level 2	872	515
Level 3	37	34
Level 3 Hons	957}	894}
Level 4 Hons	}	}
Total	2,699	1,715

### 2.3 Range of Provision under Review

The Undergraduate degree programmes under Review were organised into four distinct degree groups:

<b>Degree Group</b>	<b>Degree Programme</b>
Animal Biology (A)	Marine & Freshwater Biology Zoology Animal Biology*
Biomolecular Sciences (B)	Biochemistry Genetics Molecular & Cellular Biology Molecular & Cellular Biology (with Biotechnology) Molecular & Cellular Biology (with Plant Science) Biomolecular Sciences*
Human Biology (C)	Anatomy

	Human Biology
	Human Biology & Nutrition
	Human Life Sciences*
	Neuroscience
	Pharmacology
	Physiology & Sports Science
	Physiology, Sports Science and Nutrition
	Sports Science*
Infection Biology (D)	Immunology
	Microbiology
	Parasitology
	Virology
	Infection Biology*
	*Designated Degree

## 2.4 Strategy and Vision

- 2.4.1 The School of Life Sciences was under new management, with Professor Simon Guild commencing in September 2015. As a consequence, the School has recently developed a new strategic plan for 2015-20, which the Panel noted was only in its second year. However, from the SER and from discussion with the Management Team, it was evident that a number of significant changes had already been made, including, establishment of a new management structure, restructuring of Year 2 of the curriculum, an Assessment Office created with an assessment and feedback policy introduced. The School further planned to review the degree portfolio and content of all degrees. The Panel recognised that the introduction of a new management structure and resulting changes to processes was challenging, but appreciated the Management Team's desire to improve the staff as well as the student experience within the School. As part of the School's planned review, the Panel **recommends** that the School formulates a clear strategy for the future shape of the degree portfolio, including how teaching within the portfolio will be delivered. This strategy should be developed and agreed in consultation between the School and Research Institutes and ratified by the College Management Group ensuring the teaching commitments from all parties are embedded within College forward planning.
- 2.4.2 The Self Evaluation Report (SER) highlighted one of its key objectives was to provide the School with a stronger identity and 'sense of belonging' and it was anticipated that a planned move to the West Medical Building would enable the School to do so. At the meeting with students, they confirmed that in Levels 1 and 2 there was no sense of belonging but this changed in Honours years. College estate plans had been developed to ensure that Research Institutes (RIs) had more cognate space while providing cohesive space for the School of Life Sciences. During the Review, the Panel were shown the space to be refurbished for the School and the potential for creating a 'hub' was acknowledged. The Panel **was impressed** by the School's linking of its strategy with the University's strategy of "constructing spaces that inspire learning, discovery and social interaction...fit for purpose and enable students and staff to learn and work together..." (SER, para 2.1.13, page 7)

- 2.4.3 In relation to identity, at the meeting with staff, the diversity of subjects within the School was discussed, along with the difficulty in applying common aspirations due to different requirements. The School was large and fragmented across different locations, and it was queried whether the committee structure provided an effective feedback mechanism and interface between the four Degree Groups. Staff confirmed that all committees reported to the Learning and Teaching Committee and that there was sufficient connection across Degree Group meetings. The new committee structure provided more opportunities to become involved and the restructuring of Level 2 reflected the ability to work together. The Away Day was also highlighted the School's management attempt to remove barriers. The School Office also provided a SharePoint site highlighting School activity and this was appreciated by staff. However, the Panel considered the Degree Groupings were possibly causing unintentional barriers to the creation of a School identity. The Review Panel therefore **recommends** that the School reconsiders both the groupings of degree programmes and the associated committee structures with a view to developing more consistency and coherence of approach across the School.
- 2.4.4 From the SER and from discussion with the Management Team, part of the overview of the School's provision was to seek Accreditation by the Royal Society of Biology (RSB) for its undergraduate programmes. The Head of School confirmed that this had not been driven by the teaching staff but by the Head of College who originally highlighted the potential benefits of doing so and this had been the catalyst for reviewing and changing the curriculum. One concern was the importance the RSB placed on research projects with less reliance on library based dissertation options which required the School to rely more on the Research Institutes to provide support and therefore required RI commitment to provide this (see 2.4.5). Due to the timescale for submission, the School was considering seeking accreditation for some of their provision rather than all, for but the Panel strongly suggested seeking accreditation for all the degree programmes to reduce the impact of having to undertake a number of review processes.
- 2.4.5 The Review Panel heard concerns about the relationship with Research Institutes (RIs), particularly in relation to how this might impact on the School's strategy for future student growth. The Panel recognised the benefits of the creation of Research Institutes for the College of MVLS, in relation to research and research income, but also recognised the potential for conflict with respect to teaching. Perceived conflict arose as the School has management responsibility for teaching provision, but relied on research-led teaching to be provided by staff based in Research Institutes, who were more focused on research. At the meeting with the Management Team, the Head of School advised that he had instigated regular meetings with Research Institute Directors to establish a process for collaboration to ensure teaching commitments were met. The College Management Group (CMG) stipulated that the normal expectation was for all Research and Teaching staff within Research Institutes to contribute to teaching which was fully promoted and supported by the CMG which includes Institute Directors. These measures had produced progressive improvements in the last few years. (see 2.4.1 and 2.4.6)
- 2.4.6 At the final meeting with the Management Team, the Panel was advised that well established teaching support provided by Research Institutes was mainly by staff with historical relationships linked to specific degrees. In these instances, it was evident that these relationships worked very effectively. At the meeting with staff, it was acknowledged that there were some particularly strong links, for example, with Anatomy and Zoology. However, where previous relationships did not exist, the process for meeting teaching commitments was less clear; and ensuring research-led teaching obligations were met could be challenging for the School. At the meeting with staff, there was a strong perception within the School that the relationship between the

School and Research Institutes was not working well in all cases. Staff based in Research Institutes commented that they were dissatisfied with the perceived 'divide' but agreed that commitment to teaching across Research Institutes was not consistent, with RI staff prioritising research. It was suggested that this was also having an impact on support for professional degrees such as Medicine and Dentistry. Accreditation would also bring more pressure due to increased reliance on Final Year Honours projects. In relation to the future strategy for the shape of the degree portfolio (2.4.1 above), clear responsibility for the delivery of teaching within the School and Research Institutes was essential. In the meantime, the Review Panel **recommends** that the Head of School works with the Dean (Learning and Teaching) and the Head of College to continue to strengthen the working relationship with the Research Institutes in relation to teaching resources.

2.4.7 At the meeting with the Management Team, it was acknowledged that there was a strong obligation on the School to accommodate future growth as student numbers were controlled by the Funding Council in the other Schools within the College of MVLS. Significant growth was anticipated with the College agreeing to 548 students to enter Level 1 in 2017-18. The School planned to review each year of the degree programmes and plan for increased practical requirements (SER, 7.4.1. page 35). This included planning for a significantly larger Level 4 cohort and the requirement to provide Honours project supervision and this would need to be considered as part of the strategy as discussed under item 2.4.1.

2.4.8 Prior to restructuring in 2010, the School had provided service teaching for the professional programmes in Medicine, Dentistry and Nursing. Staff who had undertaken this teaching were now based in the Research Institutes with these areas experiencing the same issues as the School of Life Sciences in relation to teaching resources (see 2.4.6).

## **2.5 Strategic Approach to Enhancing Learning and Teaching**

### *Internationalisation and Study abroad*

2.5.1 It was unclear what specific internationalisation opportunities existed and what the School's strengths were to lever interest from international students and how the School would address the challenges it would face if more international students were accepted. At the meeting with the Management Team, the Panel drew attention to the limited opportunities there were in relation to internationalisation and study abroad. The School did not have any collaborative arrangements, which could provide opportunities to develop robust student exchange programmes.

2.5.2 Only 26 students had participated in the Erasmus Scheme. At the meetings with the students, the majority misunderstood when opportunities to study abroad took place, believing it could only be undertaken in Year 2, before they specialised in Years 3 and 4. They considered Year 2 as too early to apply for, when they were just settling into university. They acknowledged that they would consider study abroad in their specialism. The students also welcomed an opportunity to study abroad for one semester rather than a full year. This was discussed further at the final meeting with the Management Team, where it was confirmed that study abroad could be undertaken in Year 3. Nevertheless, the Panel **recommends** that the School addresses this misconception and puts in place sufficient support to allow students to participate in study abroad.

### *Graduate Attributes*

2.5.3 At the meeting with the students, it was evident that the students understood the skills being attained through assessment, quoting critical review, communication skills and presentation skills as some examples.

#### *Employability*

2.5.4 Throughout the SER, the School stated that it aimed for employability as a strand in all aspects of teaching. One aspect of this has been highlighted in the Level 2 restructure, but it was not clear where else students obtain this, apart from the placements. Availability of placements was not guaranteed and where mainly linked with research activity or research career trajectory. The Review Panel **recommends** that the School explores the provision of other placement experiences that do not have a research focus (also see 2.5.5).

2.5.5 The students who met with the Review Panel did not feel there was sufficient focus on employability beyond academia. Careers talks were perceived to focus on PhD study. An exception to this was Zoology, which provided fieldtrips and ran a Careers Week where students were given advice on how to write CVs and job applications, identifying skills attained and how to apply to different types of employment. Genetics and Marine Biology provided a careers' fair to which companies were invited. The students suggested that earlier guidance on employability and career options available would be valuable and would also offer an opportunity to change degree pathways if a career path was evident. This was discussed further at the meeting with staff where it was agreed that signposting of transferable skills could be improved along with assessment linked to graduate attributes and employability, but this was evolving. The Panel suggested that it would be beneficial to consult with the students to identify what approach would suit best. At the meeting with the students, they had indicated preference for awareness from Levels 1 and 2 onwards. Staff reported that approximately a third of students entered research related careers, but agreed that the range of skills attained through conducting research supported a broader range of careers. The Review Panel **recommends** that the School embeds employability throughout the curriculum, ensuring that destinations other than academic pathways are clearly highlighted to students. In this respect, the School should work closely with Careers Service and should consider the establishment of an Industrial Liaison Committee.

2.5.6 One of the students who met the Panel expressed disappointment that the University did not have Accreditation by the Institute of Biomedical Science, a requirement for some NHS positions. At the meeting with staff, it was confirmed that the training this student referred to was a different type of experience which did not align with the University graduate experience.

### **3. Enhancing the Student Experience**

#### **3.1 Admissions, Retention and Success**

##### *Recruitment*

3.1.1 Recruitment to the School of Life Sciences was healthy, with a large student population. If student numbers were to increase, as suggested in the SER, consideration would have to be given to economies of scale in terms of course numbers and consideration given as to how a personalised experience for students in these large courses could be provided.

##### *Induction*

- 3.1.2 The Panel **commends** the School for the extended induction beyond fresher's week. The extension provided greater context, with the induction programme embedded into the Level-1 Biology course with activities designed to help students understand expectations and assess their own level of knowledge. Activities included Self-Assessment Exercises, Taster Quiz and a mock examination. Study skills were also embedded and timed to support early assessment.

### *Progression*

- 3.1.3 The School had participated in the Higher Education Academy (HEA) 'What Works?' Project in 2013. This was a Student Retention and Success project that had involved 13 UK Universities (SER, 3.3.8). Participation allowed the School to identify its strengths and weaknesses and improve retention and success by enhancing induction and active learning. The School used Moodle (see 4.1.10) as a central facility to engage with classes and provide essential information. Student feedback and VLE logs identified what resources were needed and how to make them accessible. From the information collected, introductory lectures and Question and Answer sessions were redesigned, provision of course material was given in advance, peer support group sessions were established, self-assessment exercises and quizzes were provided which have proven popular with students and were also used as revision aids. The Panel considered participation in the HEA What Works project and changes made to student support as a consequence as **good practice**.

## **3.2 Equality and Diversity**

- 3.2.1 The School was engaging with the Athena Swan process<sup>1</sup> and the Panel was pleased to note student representation on the Self-Assessment Team and that a student survey had also been undertaken.
- 3.2.2 The School had good links with the Disability Service, with the School contacting students prior to arrival to ensure that all necessary provisions have been made. The School had named Disability Contacts for each year of study and these contacts liaised with the Disability Service and with teaching staff to support individual students. (SER, 3.2.5, page 16). The Panel considered the support coordinated with Disability Services to be **good practice**.
- 3.2.3 The Panel noted that 36% of staff were still to complete the compulsory University Equality and Diversity training. The Panel **recommends** that the Management Team ensure remaining staff undertake this as soon as possible.

## **3.3 Supporting Students in their Learning**

- 3.3.1 From the meeting with both the staff and the students, it was clearly evident to the Panel that the staff were fully committed to providing the best student support and experience possible. The Panel was **impressed** with how engaged the students were with their programmes of study and that they clearly recognised the commitment and support provided by the staff.
- 3.3.2 The Panel met with 25 undergraduate students over two timetabled meetings, covering a wide range of levels and degree programmes. Feedback from the students ranged

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<sup>1</sup> Athena Swan Charter was originally established in 2005 to encourage and recognise commitment to advancing the careers of women in science, technology, engineering, maths and medicine (STEMM) employment in higher education and research. In May 2015, following ECU's successful pilot of the Gender Equality Charter Mark Scheme, the Athena SWAN Charter was expanded to recognise work undertaken in arts, humanities, social sciences, business and law (AHSSBL), and in professional and support roles, and for trans staff and students. The charter now recognises work undertaken to address gender equality more broadly, and not just barriers to progression that affect women.

from feeling overwhelmed in First Year to appreciating the broadness of the course. Overall, the students were very positive regarding their student experience, enjoying the courses studied with staff considered friendly and approachable.

3.3.3 At the meeting with the Management Team, the Panel questioned what support was in place in the event of a student experiencing any issues, particularly with the project supervisor. The Deputy Head of School confirmed that Level 4 Course Co-ordinators and Degree Leads worked together to provide support and develop good relationships with the students and as a consequence students would seek support from them.

3.3.4 It was noted that investigative skills were core transferable aptitudes obtained from research projects, but outreach and internships provided other skills and opportunities for students with some projects being library based such as bio analysis and the use of 'big data'. Laboratory based projects were the most popular with some projects successfully publishing results. From discussion with the students, it was clearly evident to the Panel that the students felt well supported in their Final Year projects, irrespective of which Degree Group they belonged to. The Panel was **pleased to note** that the majority of Year 4 students at the meeting advised that the final year project was an excellent experience providing a great sense of achievement, particularly for those whose results were published. They welcomed the opportunity to work with experts in their specialist fields. It was noted that students were given an opportunity to request a project they would like to undertake, but that choice was not guaranteed.

#### **3.4 Effectiveness of Student feedback mechanisms**

3.4.1 In line with University course evaluation policy, the School evaluated each course via EvaSys (course evaluation software) with feedback provided to students via Staff Student Liaison Committees (SSLC). SSLC minutes were also placed on Moodle. Results were used to review courses as well as for annual monitoring purposes. The School had welcomed the policy and had included the course quality question set for all evaluations in order to capture data to improve practice (Appendix 10, SER). The School has already identified a number of insights and patterns and will continue to analyse the data. The Panel considered the holistic approach taken to analyse course evaluation data to enhance student learning as **good practice**.

3.4.2 At the meeting with students, one class representative highlighted a class where the students had raised concerns and no action appeared to be taken. The mechanism for reporting back had not been clear to the students concerned. This was not representative of the general view and a Year 3 representative highlighted better coordination and feedback within their year. It was confirmed that in Years 3 and 4 classes were smaller which provided more opportunity to voice concerns and receive support.

### **4. Enhancement in Learning and Teaching**

#### **4.1 Learning and Teaching**

##### *Curriculum Design*

4.1.1 The School of Life Sciences had undertaken a major review of Level 2 teaching for introduction in Session 2017-18. Level 2 would now consist of six courses (previously 16) which should provide a more coherent learning experience. The change should also increase efficiency and effectiveness of teaching, assessment and feedback and allow for a more centralised and quality assured oversight (SER, 2.2.7. point 1, page 11). At the meeting with staff, it was agreed that the restructured Level 2 prepared students better for Level 3. At the meeting with the students, the Panel was informed



that they had been advised of the proposed changes with feedback sought. The students welcomed the more structured approach to the curriculum, considering this to be more helpful. The Panel acknowledged the consultative approach to the redesign of Level 2 as **good practice**.

- 4.1.2 The Panel queried how the staff envisaged future provision and what the benefits were by offering the current portfolio of 19 degree programmes and whether this was driven by market, student demands or staff engagement. The Panel questioned whether there was potential for rationalising provision, taking into account pressure points in relation to staffing and resources as well as potential for introducing new research interests and developments. Staff confirmed that they were satisfied with the current structure. Some members of staff highlighted the difficulty in future planning due to uncertainty of accurate student numbers and availability of equipment.
- 4.1.3 At the final meeting with the Management Team and Dean (Learning and Teaching) for the College of MVLS, the role of Programme Coordinator and Year Coordinator was discussed, particularly how they interacted. Year Coordinators' were responsible for scrutinising courses across a particular level (L2, L3 and L4), whilst Programme Coordinators had responsibility for Level 4 and the vertical integration of courses that contributed to their programmes (i.e. Programme Coordinators and Level 4 Coordinators are one and the same).

#### *Placement Learning*

- 4.1.4 The Panel was **impressed** by the College of MVLS scheme "Head of College Scholars' List" aimed at academic high achievers in Level 1 and 2. This was an extracurricular scheme aimed to promote engagement with research. Participating students from across the College met active researchers from across MVLS exposing them early in their studies to research. The students could apply for specific funding for summer research placements of their own design. In total, £10,000 per year was made available.
- 4.1.5 Summer placements were provided both within and outwith Glasgow with students encouraged to participate in summer expeditions or lab placement schemes such as the International Association for the Exchange of Students for Technical Experience (IAESTE) and the iGEM (international Genetic Engineered Machines) Team competition. At the meeting with the students, the skills learnt on these placements were considered to be really valuable. It was not clear from the SER, how many students participated in these placements, but the Panel encourages the School to continue to promote these opportunities to students.

#### *Approach to Intended Learning Outcomes (ILOs)*

- 4.1.6 Programme specifications had clear statement of scope for the degree followed by appropriate aims and ILOs. There was some repetition of the generic ILOs linked with each degree, but each had a couple which were specific to the programme. These were up to date and as expected for these types of programmes.
- 4.1.7 Course content covered elements of the relevant QAA subject benchmark statement, and ILOs for the programmes were consistent with QAA guidelines. As part of curriculum review, the Panel suggests producing a mapping document to provide clear overview of the programme and coverage of the benchmark areas.
- 4.1.8 The Level 2 restructure clearly linked ILOs with a variety of assessment practices.

#### *Technology Enhanced Learning and Teaching*

- 4.1.9 The Review Panel **commends** the School for its innovative use of the VLE (Moodle) which had become the main source of information and communication for all students. At the meeting with the students, the benefits of the Moodle Hub were

acknowledged, with attention drawn to the learning forums and the quick responses received to queries and the provision of additional information. Feedback was also provided using the Hub which the students found useful. However, it was noted that some staff did not use it to its full potential with some staff not providing lecture slides which was compulsory (SER, 4.4.4, page 27). The Panel **recommends** that the Management Team address the issue of staff not complying with the requirement to provide lecture slides. The students also highlighted that it would be beneficial to have access to notes throughout the duration of the degree programme as notes were removed on an annual basis<sup>2</sup>.

- 4.1.10 At the meeting with students, Technology Enhanced Learning and Teaching (TELT) initiatives were recognised to a varying extent between Degree Groups. It was acknowledged that on-line resources, Twitter, mobile apps were all being used in a wider context of learning. However, it was also acknowledged that more traditional assessments, such as laboratories, could be more appropriate depending on the subject. The Panel noted that more interactive pre-laboratory activities were being introduced to enhance laboratory based subjects and the Panel's attention was drawn to the Molecular Methods course which used digital support resources (see 4.1.11).
- 4.1.11 The Molecular Methods App provided an example of **best practice**, in using digital support resources, delivering material in a way that the digitally aware student cohort would appreciate and engage with. The Panel was pleased to note that the School would continue to develop this web-based app and whether there was scope to add this to other courses. At the meeting with students, the Panel's attention was drawn to this as **an example of good teaching practice**.

## 4.2 Assessment and Feedback

- 4.2.1 The School was moving its focus from Assessment of Learning to Assessment for Learning. It had recently established an Assessment and Feedback Committee to oversee practice, review good practice and develop policy to take an evidence-based approach to enhancement (SER, 4.2.2, page 24). The Review Panel **commends** the evidence based data driven approach to understanding and improving assessment practice across the School.
- 4.2.2 The School had identified the challenge of making practice across the School consistent and appropriate, whilst retaining diversity. The School had started to introduce school-wide policy and was in the process of developing an overarching assessment and feedback strategy. The Panel recognised this as a substantial undertaking due to the significantly large number of courses involved. (see 4.1.2)
- 4.2.3 The Panel noted that the School had undertaken a review of Level 4 projects to ensure consistency across the School in terms of effort and assessment. It introduced a new 20-credit Level 4 dissertation project course, allowing students to select projects from one of four cross-School approaches: investigative, dissertation, outreach or internship. The Panel considered the harmonisation of Level 4 projects as **good practice**. (see 3.3.4)
- 4.2.4 The Panel was impressed with the introduction of low stakes assessment in early stages and the associated provision of summative feedback and considered this **good practice**.
- 4.2.5 The students were exposed to a standard range of assessment types with examples of feedforward formative assessment followed by summative assessment featuring

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<sup>2</sup> Additional Moodle capacity was currently being investigated by the VLE Development Board, a sub-committee of the University's Learning and Teaching Committee

in several courses. This **good practice** should be enhanced by the work undertaken by the new Assessment and Feedback Committee.

- 4.2.6 At the meeting with staff, Level 3 assessment was discussed. It was noted that, typically, 3-hour end of course examinations were held, with the essay format predominating in Levels 3 and 4. The Panel was advised that reliance on examination format was historically based. The Panel's view was that a focus on examinations and corresponding weighting could restrict the student's ability to demonstrate the set of skills attained. However, the Panel noted from discussion with the staff and from the SER, that the School was moving towards examinations that also required data analysis, problem solving, paper interpretation and open book approaches as well as offering assessments that were completed online or in the student's own time. (SER, 4.2.4, page 24). These proposed changes should encourage depth and breadth of knowledge.
- 4.2.7 The degree classification was based entirely on the end of Level 4 examinations and project. This was discussed at the meeting with the students where they confirmed that not carrying Year 3 results placed them under immense pressure. It was confirmed that, depending on when the examinations were timetabled, the degree classification could be based on one or two week's work and there was anxiety as to how external factors, such as an illness, could have a dramatic impact on the result. In discussion with the staff, it was explained that students were often not as well prepared in Level 3 and analysing grade profiles, overall, including Level 3 reduced grades. However, the staff also took on board the students' comments and acknowledged that there were both benefits and disadvantages of this practice. Across the University, normal practice was to base final degree classification on more than one year and when the School reviews Levels 3 and 4 of the curricula, the Review Panel **recommends** degree classification should be based on performance in Years 3 and 4 and on a more diverse range of assessment methods.
- 4.2.8 At the meeting with the students, the range of assessment across the degree programme was considered good with a number of transferable skills identified. A number of examples were given including opportunities to undertake independent investigations which promoted confidence in laboratory and project work. An example given was a laboratory report that had to be written up within a 24-hour timescale (worth 10%). It was recognised that the purpose of the assignment was to place the student under pressure to work within a limited timescale and, although at the time the student found it difficult, the student gained confidence that they were able to work under those conditions.

#### *Engagement with the Code of Assessment and Assessment policy*

- 4.2.9 The SER stated that the School fully complied with the University's Code of Assessment, with all assessment contributing to a final degree award second marked. For final year projects, the supervisor only grades research engagement, whilst the other components were assessed independently. (SER, 4.2.4, page 24 and Appendix 5) The Panel recognised the statistically-evidenced moderation of marking as **good practice**.

#### *Feedback on Assessment*

- 4.2.10 Some students suggested that feedback could be variable, depending on the marker. The best feedback was perceived to be received in Level 4, although again it was dependent on the staff member. The Multiple Choice Questions (MCQs) and

Short Answer Questions (SAQs) were considered useful as formative exercises in Level 1.

### 4.3 Resources for Learning and Teaching (staffing and physical)

#### *Staffing*

- 4.3.1 As discussed under 2.4.5, there was a strong inter-dependency between the School and the Research Institutes. This relationship had to work for the School to access the full range of resource it required to deliver its teaching. Contributions from the RIs had to be negotiated, and this was challenging when staff were under separate line management structures and different pressures and priorities.
- 4.3.2 At the meeting with staff, they advised that they had felt undervalued and demoralised immediately following restructuring but strived to provide the best experience for the students. It was not clear how the workload model was applied (see 4.4.2). However, the staff also recognised that the situation was beginning to improve under new management and were rising to the challenges with new enthusiasm.
- 4.3.3 The role of the School Office had a significant support responsibility and this was acknowledged by the staff. However, it was also recognised that the administrative staff were under considerable pressure and a bid had recently been made to the College of MVLS for two additional administrative staff. It was noted that the SSR ratio was 1:250 for administrative staff and the Panel agreed this was very high. The Head of School advised that the School was over reliant on current key members of administrative staff, which made the School vulnerable.
- 4.3.4 In relation to innovative teaching, the early career staff felt frustrated with infrastructure and availability of appropriate teaching space with adequate TELT facilities and Wi-Fi.<sup>3</sup> As a consequence, and since it was unclear what sort of accommodation would be allocated, more traditional lecture style teaching had to be used. In general, tutorials were more satisfactory and enjoyable, with an average of 10 students per group.

### 4.4 Engaging and Supporting Staff

#### *Early career support*

- 4.4.1 The Panel met with 9 early career staff where it was confirmed that they were encouraged to be innovative but workload often prevented them from engaging in scholarship and implementing new concepts. Workload included administrative responsibility including Co-ordinator duties. Staff considered the Management, Professional and Administrative (MPA) support as excellent and that the Moodle SharePoint was valuable, but for new appointees, it was unclear who did what and where responsibility lay and that more information and structure would be useful. Early career staff were well informed of the new learning and teaching strategy and the review to ensure the curriculum was more efficient. The Review Panel **recommends** that the School provides an induction programme for new staff ensuring expectations, roles and responsibilities, both within the School and in the wider context, were clearly communicated.
- 4.4.2 The Postgraduate Certificate in Academic Practice (PGCAP), which was a requirement for all new lecturers to undertake, was considered useful but increasing teaching commitments created pressure. Other staff had been unable to access the programme

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<sup>3</sup> The University is investing in additional space and TELT. Wi-Fi is a recognised issue in certain locations around the Main campus

at the beginning of their contract and it was suggested that it would be more useful if the programme could be condensed and offered to staff prior to teaching. The Review Panel **recommends** transparency of workload modelling for all staff, ensuring time was allocated for early career staff development and participation on the PGCAP.

- 4.4.3 Early Career staff appreciated that there was a sense of moving forward in relation to learning and teaching and they were aware of the School's ambitions. They considered academic standards across levels as good and appropriate.

#### *Mentoring arrangements*

- 4.4.4 Mentoring arrangements were discussed. All early career staff were allocated a mentor. However, some staff had been allocated mentors from Research Institutes who were not familiar with procedures and felt that it would be useful to have a mentor based within the School. Staff confirmed that since there were a number of early career staff within the School, an informal support mechanism had been established where they learnt from each other. If they had any queries, they could also contact Course Co-ordinators and would work closely with the Course Co-ordinator if they were considering changing a course or developing a new course to ensure the course aligned within the context of the programme.

#### *Graduate Teaching Assistants (GTAs) (Demonstrators)*

- 4.4.5 The School employs laboratory demonstrators, some of whom were current PhD students and some were graduates. In addition to demonstrating, some lead laboratories and some assisted with marking, but none took seminars.
- 4.4.6 With regard to support, the two Demonstrators the Panel met with advised they received a copy of the lecture material prior to the laboratories which they found useful. They also had access to Moodle. Within the laboratory, demonstrators were assigned to a bench and were given lab books with answers and there was normally a lab leader who walked around each bench. Feedback was sought at the end of each semester, as to what the students liked and/or what could be improved. Demonstrators were expected to mark and assess essays and were given a marking sheet and examples.
- 4.4.7 Although the Panel only met with two demonstrators, one of the two had not undertaken the University statutory training and indeed, had not heard of it. The Review Panel **recommends** that the School reviews its processes to ensure all Demonstrators receive statutory training as required by the University and that they are appropriately supported by the School in the delivery of their roles.

## **5. Academic Standards**

### **5.1 Currency and Validity of Programmes**

The Panel, guided by the views of the External Subject Specialists, confirmed that, at the time of the Review, the programmes offered by the School of Life Sciences were current and valid in the light of developing knowledge and practice within the subject area. The range of provision was extremely large with expectations of 2400 UG students across 19 programmes, all of which encompassed BSc (Hons) and MSci versions, and 4 designated BSc degrees.

### **5.2 Approaches to setting, maintaining and reviewing academic standards**

- 5.2.1 The School of Life Sciences was going through a transition period with a new Head of School, a new strategic plan and a rolling implementation of course and programme level changes, some of which had been actioned. The new teaching management

structures were well conceived with clear lines of decision making. However, it was unclear how the complex committee structure interacted, in particular how the Degree Group Committees worked alongside the other Sub-committees

- 5.2.2 From the documentation, it was noted that External Examiners were appointed for each of the nineteen degree programmes and the Panel questioned whether this was necessary. It was suggested that rationalisation would allow for more consistency of standards across degree programmes. In addition, from reviewing the External Examiner Reports, there were a number of reports that had indicated that no response had been received or action had not be taken following recommendations made by the External Examiner whilst other responses were exemplary. At the meeting with the Management Team, it was reported that the Assessment Officer reviewed all Reports in association with annual monitoring and coordinated feedback responses. The Review Panel **recommends** that the School reviews processes for providing feedback to external examiners to ensure that the feedback loop is closed. In so doing, the School should consider reducing the number of External Examiners to provide greater consistency across programmes.
- 5.2.3 At the meeting with the Management Team, the Panel questioned how performance management of teaching was undertaken; in particular if a member of staff was underperforming, what support was given to improve and how was this dealt with, for staff based in a Research Institute. The Panel further noted that a number of courses were team taught and queried what processes were in place for reviewing this teaching. The Head of School confirmed that there were a number of approaches to ensuring quality of teaching, including grade review and progression rates, data use and analysis to support standards but concurred that team teaching could be fragmented and that the Management Team had started to review this. This included the introduction of school-wide mentoring and data analysis of course evaluation. Peer Observation had also recently been introduced. Quality Assurance was included under the Assessment and Feedback Committee's remit. The introduction of the Course Evaluation policy ensured that feedback loops were closed with issues raised in evaluation having to be addressed at SSLCs (see 3.4.1).

## 6. Collaborative provision

- 6.1 As discussed under 2.5.2, there was no collaboration between the School and other institutions, which was out of step with most Schools across the University. This restricted internationalisation opportunities, including study abroad and the potential to offer articulation pathways. The Head of School had initiated some discussion and recognised the potential of arrangements with China or the United States particularly in biomedical sciences. However, it had been necessary for the School to focus on restructuring. The Panel highlighted the benefits of having external partners for both the School and for the student population and **recommends** that, in relation to study abroad and collaborative provision, the School should develop an internationalisation strategy that provides more effective study abroad opportunities for students and also create scope for collaborative provision and articulation pathways. This should be done in collaboration with the Vice Principal Internationalisation, the College International Lead and with the Marketing, Recruitment and International Office (MRIO).

## 7. Conclusion

The Review Panel observed a dedicated and hard-working School that strived to provide the best learning and teaching environment for its students. The Panel was impressed by the quality of the students it met with, who clearly recognised the support

provided to them and its aim of ensuring an excellent student experience. The Panel recognised the complexity of the College structure and the pressure to cover a diverse range of teaching and research, and the challenges faced by the School within this. However, establishing a clear vision and strategy for future shape aligned with the College of MVLS plans, should alleviate this pressure. The School of Life Science was under new management who were committed to enhancing the School's position and creating a strong School identity with a new learning and teaching strategy developed and underway. The Head of School was clearly committed to enhancing the staff experience as well as the student experience. The School should give attention to the provision of collaborative provision and the opportunities this provides to enhance internationalisation and study abroad opportunities thus enhancing the student experience further.

## **8. Summary of perceived strengths and areas for improvement**

### **8.1 Key strengths**

The Review Panel identified the following areas as key strengths:

- Staff commitment to students
- Head of School commitment to enhancing the staff experience as well as the student experience
- Committed and enthusiastic students
- Review of Assessment including harmonisation of Level 4 projects
- Early low stakes assessment in early stages and provision of summative feedback
- Consultative approach to the redesign of Level 2
- Extended induction
- Moderation of marking in final year option courses

Specific examples of good practice are listed below.

### **8.2 Areas for improvement**

The Review Panel highlighted the following areas as opportunities for improvement:

- Working relationship between School and Research Institutes for the delivery of teaching
- Strategic vision in terms of future degree portfolio
- Development of School identity
- Internationalisation including collaborative provisions and study abroad
- Embedding employability into the curriculum
- GTA support and induction for early career staff
- Transparency of workload

Specific recommendations addressing these areas for work are listed below, as are a number of further recommendations on particular matters.

### 8.3 Commendations

The Review Panel commends the School of Life Sciences on the following, which are listed **in order of appearance** in this report:

#### Commendation 1

The Panel **commends** the School for the extended induction beyond fresher's week. [Paragraph 3.1.2]

#### Commendation 2

The Review Panel **commends** the School for its innovative use of the VLE (Moodle) which had become the main source of information and communication for all students. [Paragraph 4.1.9]

#### Commendation 3

The Review Panel **commends** the evidence based data driven approach to understanding and improving assessment practice across the School. [Paragraph 4.2.1]

### 8.4 Good Practice

The Review Panel recognises the following **good practice** within the School of Life Sciences, which are listed in order of appearance in this report:

#### *Progression*

##### Good Practice 1

The Panel considered participation on the HEA What Works project and changes made to student support as a consequence as **good practice**. [Paragraph 3.1.3]

#### *Student Support*

##### Good Practice 2

The Panel considered the support coordinated with Disability Services to be **good practice**. [Paragraph 3.2.2]

#### *Effectiveness of Student feedback mechanisms*

##### Good Practice 3

The Panel considered the holistic approach taken to analyse course evaluation data to enhance student learning as **good practice**. [Paragraph 3.4.1]

#### *Curriculum Design*

##### Good Practice 4

The Panel acknowledged the consultative approach to the redesign of Level 2 as **good practice**. [Paragraph 4.1.1]

#### *Technology Enhanced Learning and Teaching*



### **Good Practice 5**

The Molecular Methods App provided an example of **best practice**, in using digital support resources, delivering material in a way that the digitally aware student cohort would appreciate and engage with. [Paragraph 4.1.11]

#### *Assessment*

### **Good Practice 6**

The Panel considered the harmonisation of Level 4 projects as **good practice** [Paragraph 4.2.3]

### **Good Practice 7**

The Panel was impressed with the introduction of low stakes assessment in early stages and the associated provision of summative feedback and considered this **good practice**. [Paragraph 4.2.4]

### **Good Practice 8**

The students were exposed to a standard range of assessment types but included feedforward formative assessment followed by summative assessment in several courses. This **good practice** should be enhanced by the work undertaken by the new Assessment and Feedback Committee. [Paragraph 4.2.5]

### **Good Practice 9**

The Panel recognised the statistically-evidenced moderation of marking as **good practice**. [Paragraph 4.2.9]

## **8.5 Recommendations**

The following recommendations have been made to support the School of Life Sciences in its reflection and to enhance provision in relation to teaching, learning and assessment. The recommendations have been cross-referenced to the paragraphs in the text of the report to which they refer and are **grouped together** by the areas for improvement/enhancement and are **ranked in order of priority within each section**.

#### *Context and Vision*

### **Recommendation 1**

The Review Panel **recommends** that the School formulates a clear strategy for the future shape of the degree portfolio including how teaching within the portfolio will be delivered. This strategy should be developed and agreed in consultation between the School and Research Institutes and ratified by the College Management Committee ensuring the teaching commitments from all parties are embedded within College forward planning. [Paragraph 2.4.1]

**For the attention of: The Head of School and Vice Principal and Head of College  
of Medical, Veterinary and Life Sciences  
For information: Dean (Learning and Teaching)**

## **Recommendation 2**

The Review Panel **recommends** that the Head of School works with the Dean (Learning and Teaching) and the Head of College to continue to strengthen the working relationship with the Research Institutes in relation to teaching resources. [Paragraph 2.4.6]

**For the attention of: The Head of School, Dean (Learning and Teaching) and Vice Principal and Head of College of Medical, Veterinary and Life Sciences**

## **Recommendation 3**

The Review Panel **recommends** that the School reconsiders both the groupings of degree programmes and the associated committee structures with a view to developing more consistency and coherence of approach across the School. [Paragraph 2.4.3]

**For the attention of: Head of School**

*Study Abroad*

## **Recommendation 4**

The Panel highlighted the benefits of having external partners for both the School and for the student population and **recommends** that, in relation to study abroad and collaborative provision, the School should develop an internationalisation strategy that provides more effective study abroad opportunities for students and also create scope for collaborative provision and articulation pathways. This should be done in collaboration with the Vice Principal Internationalisation, the College International Lead and with the Marketing, Recruitment and International Office (MRIO). [Paragraph 6.1]

**For the attention of: Head of School**

**For Information: VP Internationalisation, College International Lead, and Director MRIO**

## **Recommendation 5**

The Panel **recommends** that the School addresses this misconception as to when student abroad can be undertaken and puts in place sufficient support to allow students to participate in study abroad. [Paragraph 2.5.2]

**For the attention of: Head of School**

*Assessment*

## **Recommendation 6**

The Review Panel **recommends** degree classification should be based on performance in Years 3 and 4 and on a more diverse range of assessment methods. [Paragraph 4.2.7]

**For the attention of: Head of School**

*Employability and Graduate Attributes*

## **Recommendation 7**

The Review Panel **recommends** that the School embeds employability throughout the curriculum, ensuring that destinations other than academic pathways are clearly highlighted to students. In this respect, the School should work closely with Careers Service and should consider the establishment of an Industrial Liaison Committee. [Paragraph 2.2.5]

**For the attention of: Head of School**

**For information: Head of Careers Service**

### **Recommendation 8**

The Review Panel **recommends** that the School explores the provision of other placement experiences that do not have a research focus. [Paragraph 2.2.4]

**For the attention of: Head of School**

*GTA support*

### **Recommendation 9**

The Review Panel **recommends** that the School reviews its processes to ensure all GTAs receive statutory training as required by the University and that they are appropriately supported by the School in the delivery of their roles. [Paragraph 4.4.7]

**For the attention of: Head of School**

**For information: Director of LEADS**

*Staff support*

### **Recommendation 10**

The Review Panel **recommends** that the School provides an induction programme for new staff ensuring expectations, roles and responsibilities, both within the School and in the wider context, were clearly transparent. [Paragraph 4.4.1]

**For the attention of: Head of School**

### **Recommendation 11**

The Review Panel **recommends** transparency of workload modelling for all staff, ensuring time was allocated for early career staff development and participation on the PGCAP. [Paragraph 4.4.2]

**For the attention of: Head of School**

*Academic Standards*

### **Recommendation 12**

The Review Panel **recommends** that the School reviews processes for providing feedback to external examiners to ensure that the feedback loop is closed. In so doing, the School should consider reducing the number of External Examiners to provide greater consistency across programmes. [Paragraph 5.2.2]

**For the attention of: Head of School**

*Supporting Students in their Learning*

### **Recommendation 13**

The Panel **recommends** that the Management Team address the issue of staff not complying with the requirement to provide lecture slides. [Paragraph 4.1.9]

**For the attention of: Head of School**

*Equality and Diversity*

**Recommendation 14**

The Panel **recommends** that the Management Team ensure remaining staff undertake the compulsory University Equality and Diversity training as soon as possible. [Paragraph 3.2.3]

**For the attention of: Head of School**