

# 2020 NSS Departmental Recommendations

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## Department of Aeronautics

Written by Nicole Pellizzon and Quanyi Dong, in collaboration with Imperial College Union

Overall, the department has remained consistent with and overall satisfaction of 75.44 compared to last year's 75.38. However, special mention must go to the 8.8% increase in Academic Support and 6.8% increase in Organisation and Management. Both these increases are far above College average improvement which is something to be proud of.

There are of course always areas of improvement with four main areas being identified:

1. Quality of marking and timely return of marks
2. Coursework deadlines
3. Stress and workload
4. Course content

The first three were common with many other departments, in particular no. 1. This led to a lively discussion with many ideas revolving around double marking being put forward. Following the discussion, the document was revised to adapt some of these new ideas so that they could be suitable solutions for Aero.

But before diving into the negatives, some of the many positives also identified:

- Staff
  - *"Staff react very quickly to feedback. Staff are here for you when you need to talk to them"*
  - *"Some lecturers are extremely dedicated and good at explaining the material"*
  - 98.25% agreed with "I have been able to contact staff when I needed to"
- GDP/Group Projects
  - *"Group Design Project was the highlight of my time at Imperial"*
  - *"The group work, providing you with a feeling of what it's like to work in the industry is a positive"*
  - 94.74% agreed with "I have had the right opportunities to work with other students as part of my course"
- Community
  - *"The people at Imperial is the greatest asset"*
  - *"My cohort felt like a small, close-knit community"*
- Career Opportunities
  - *"A lot of practical engineering skills learnt"*
  - *"The content is covered at a very high level, and is relevant to industry"*

### 1. Quality of Marking and Timely Return of Marks

Both quality of marking and the timely return of marks were commented on. There were many comments regarding the time taken for marks to be returned which typically went hand in hand with another slightly separate problem that then exacerbated the issue. This is supported by the quotes below on the 42.86% that agreed with the statement "Feedback on my work has been timely" (College average is 55.73% down from 58.56%). Whilst this is a significant increase from last year's 32.31%, this is still an area that requires improvement.

*“The essence of a lot of my grievances come from the basic disrespect of the time of the students. Throughout my time here, return of marks for coursework was stated to be 3 weeks from the hand in – a deadline self-imposed by the department and practically never met, often being overshoot by another 3 weeks. This would not be so bad if they weren’t also stubborn about dealing with extension requests from the students.”*

*“Feedback on coursework is sometimes months late. There is very little positive feedback or reassurance given.”*

Regarding quality of marking, there is a perception that marking is unfair and that marks do not represent the effort put into the work.

*“... marking is somewhat arbitrary especially for small courseworks and reports.”*

A simple and quick solution to solve the timely return of marks issue is to increase the deadline for returning marks from 3 weeks to, for example, 5 weeks. The alleged consistency in the late return of marks indicates that the current 3 weeks deadline is not realistic to achieve. This is, however, a solution that covers up the problem rather than taking the opportunity to improve the marking system and is not a desirable outcome.

In order to reduce workload for each marker and therefore decrease the time each marker requires overall, more markers could be used. This could result in a decrease in consistency, another pinch point that was identified not only in Aeronautics but in many other departments. Many of the solutions involved the use of double marking with blind double marking being the desired outcome but non-blind being the compromise when considering the time and logistics involved with blind double marking.

For Aeronautics in particular, the proposed solution is to have GTAs “pre-mark” by annotating scripts and highlighting areas of merit and improvement. The lecturer then uses these notes and has a brief read of the report to give the final grade. Comments returned to the students come from the GTA that “pre-marked” that specific piece of coursework as well as any additional comments from the lecturer. The idea is that the main legwork is covered by several GTAs with the lecturer acting as a filter to ensure marking is consistent and any discrepancies altered.

Additionally, to improve the quality of comments returned to students, it is proposed that a comments sheet is appended to coursework documents. This could take the format of a table broken down into sections, either specific for the coursework submitted or a general table with sections such as graphs/figures, technical content, writing style etc. This table should then be filled accordingly with the aim of providing two areas of improvement and two areas of success for each section. Exceptions could be made for items receiving a mark of above 90%.

Of course, with the change to the new curriculum leading to fewer written lab reports, work load for markers is understood to have already been decreased. This then applies more to first year labs, in which good quality feedback is highly important, and for longer pieces of coursework such as group projects, again an area in which high quality feedback is desired in preparation for FYP.

## 2. Coursework Deadlines

Issues with deadlines were raised in the long answer section of NSS, often linked to causing stress and anxiety. It is interesting to note that this was not reflected numerically as 73.68% agreed with the statement “The timetable works efficiently for me”.

*“The third year is terribly full of project deadlines, I think I was so stressed out and had slight mental instability at some point...”*

*“They [the department] tout the need for a work life balance yet many modules seem to work without consideration of other modules frequently piling up deadlines all in the same week/day... This ‘manage your time better’ sentiment is particularly insulting alongside the departments poor adherence to their own deadlines”*

*“Regarding IDX courses, some of them tend to put deadlines all in the same week”*

It is understood that many changes regarding deadlines and the layout of modules have been made following the curriculum review. However, it would be prudent to still consider some other improvements.

Clarity of deadlines could be improved by having a single centralised location to view projected deadlines for the year. This document should be in an easy to access location, perhaps in the Records folder for each year on BlackBoard. Additionally, this information should also be easily accessible to 2nd and 3rd year students making their module choices.

Regarding the build-up of deadlines due to IDX courses, there is not quick-fix for this and could be used as an opportunity to enhance inter-department communications.

In the long term, data of previous students’ predictions of how long certain pieces of coursework took to complete could be released. This can help with students budgeting enough time to complete long coursework over several days/weeks rather than a last-minute rush which often leads to all-nighters and missed lectures. Knowing the track record of student response to surveys, it is presumed that there is not a large amount of data currently available. This is something that can be tackled by both the department and more directly by the rep team. In the short term, data could be released simply as a histogram along with results providing immediate feedback allowing students to determine if they spent significantly more/less time than their peers which could lead to them re-evaluating time spent on the next coursework. In the long-term, data built up over at least a year (but will likely need two/three) would be released with the timetable of deadlines at the start of the year so that it may be used proactively rather than just a retrospective tool.

## 3. Stress and Workload

There were many complaints about the stress and workload. The consensus seems to be that students find it difficult to balance the time between academic work with social life and internship applications given the volume of workload during term time.

*“Work hours can be overwhelming”*

*"Myself and many other students struggle with the high workload and stress"*

*"The work-life balance is certainly tipped towards works, and I have had some of the most stressful times in my life so far on this course"*

*"It can be very overwhelming. This course has an insane amount of material to cover, with a good amount of coursework to accompany it"*

*"Far too much work (constantly) making a healthy work-life balance potentially impossible. The volume and nature of work (constant, usually very similar year to year) also makes it harder to explore aspects of the course you find interesting... until the final year project"*

*"The stress and pressure applied by the university and the staff has had a detrimental effect on my mental health. I fell like I am just a cog in a machine designed to churn out students with some kind of degree as opposed to a valued member of the university community"*

Certain aspects of this issue go hand in hand with solutions proposed in Section 2 in that providing clearer communications from the get-go about workload can help with planning. Again, it is understood that the new curriculum review looked to tackle some of these issues so it will remain to be seen in future years if this proved successful. In more immediate terms, replacing several lab reports with vivas appears to be helping with workload.

Additional support could be provided to 1st and 2nd year students as they assimilate themselves with university life by providing soft interim deadlines for long pieces to help them keep on track. If this is implemented, it should be made very clear that these are formative to not add extra pressure and make it appear that there are more deadlines.

Direct input from the year above could also help by putting faces to the recommendations rather than just being handed/emailed a document at the start of the year. An AMA could be held in the first week of the year with a panel of students from the year above. In the long term, this can also help students feel more open about voicing concerns and increase the flow of communication between year groups which strengthens the community feel of the department. Currently, 64.91% of students agree with "I feel part of a community of staff and students", a good increase from 56.92% of the previous year.

In the same vein, from personal observation, Amy's tea and cake sessions have been beneficial especially when held in the common room as it forces students to stop working for a bit and socialise with their peers from all year groups. This goes hand in hand with Victor's initiative last year in starting the Aero Help scheme as it builds a stronger sense of community and helps younger students begin to put together a support network. All in all, this leads to a less toxic environment in the common room with less perpetual complaining and a higher morale.

#### **4. Course Content**

There were several suggestions for more coding or practical aspects to be included in the course.

*"Practically no hands-on work (in Engineering)!"*

*"Relatively low practical experience"*

*"It's not practical mainly theoretical"*

*"More coding languages should have been taught... More software should have been taught"*

*"Very little coding"*

Additionally, there were some comments about choosing more modules/choosing module in earlier years as well as general comments about the structure of the course.

*"it would be better if there was more freedom to choose modules and more module options to choose from, such as a larger selection of specialist modules from specific lecturers"*

*"Some subjects could be improved or eliminated"*

This is somewhat difficult to tackle as much of it requires significant changes to the curriculum. Some of these have been identified when constructing the new curriculum. Presumably, others have too but suitable solutions were not found.

For example, certain modules could be split into smaller chunks e.g. Advanced Mechanics of Flight could be recast into two separate short modules. This would then allow students to pick a larger number of shorter and more specialised modules. This would almost inevitably lead to complaints over workload be it from coursework or number of exams not to mention this is somewhat unfeasible without significant overhaul to the degree structure.

Regarding the comments about coding and software, students could be made much more aware of self-study resources that the university provides such as LinkedIn Learning. This of course does require students to have the free time to invest in such extra learning linking to issues brought up in Sections 2 and 3.

## Department of Bioengineering

Written by Roxana Draghia and Alvaro Fernandez, in collaboration with Imperial College Union

The following recommendations are based on the NSS 2019-2020 data, and they include but are not limited to: Improvement of Wellbeing and Support Network, Exam and Coursework marking and feedback and Communication within the Department. This document was created after several meetings, in collaboration with the Imperial College Union President, Deputy President of Education and Deputy President of Welfare. Overall, the student satisfaction in 2020 decreased as compared to the 2019 one, mostly in Organisation and Assessment and Feedback. However, the recommendations below should be a good starting point towards a more positive satisfaction among the students.

### 1. Improvement of Wellbeing and Support Network

Students believe there are problems regarding wellbeing, mental health and pastoral support and guidance. The level of communication with their personal tutor varies across different groups and many people mentioned that the Department lacks a solid and structured pastoral and wellbeing network, which they could benefit from.

*“Very poor student wellbeing support especially regarding mental health issues.”*

*“Lack of concern for student welfare with academics taking priority with students being frequently overworked.”*

*“Very little consideration was given to mine or other student's mental health”*

*“My experience felt very impersonal”*

*“I didn't feel comfortable asking for help.”*

*“My personal tutor was not helpful when I tried to discuss a problem with him/her, and would often miss scheduled meetings.”*

*“Huge lack of pastoral care. Workload can be considered inhumane at times, with 100+ hour work weeks being encouraged, resulting in unhealthy levels of stress and pressure.”*

*“The workload has been stressful and too challenging to manage. Mental health and pressure should be considered far more.”*

*“Mental health and pressure should be considered far more”*

Our proposed solution to this issue is as follows:

- Establish a more structured wellbeing and pastoral care network by

- Working closely with the Departmental Wellbeing Representative and the department's wellbeing adviser and provide more slots for meeting (both in person and remotely).
- Working and discussing with the College and Faculty Wellbeing advisers
- Provide training or guidance to personal tutors, or some sort of "What to do when..." flowchart for students and tutors.
- Ensure that personal tutors have regular meetings with their students, especially in 1st and 2nd year.
- Explore academic options to reduce stress and mental health issues, such as more spread out and flexible deadlines when needed.

## 2. Exam and Coursework Marking and Transparency

Multiple students commented on the lack of transparency regarding coursework and exam grading. Some believe that marking is unfair and students should be given more information on how grade moderation is done, more justification for coursework and exam grades and proposed solutions.

*"Email not replied when concerned about results."*

*"I don't feel I received enough feedback for scientific writings. I was given a grade 73 with a comment like 'good' and a grade with 55 with absolutely no comment at all."*

*"I have no idea what have I done wrong and how can I improve."*

*"The course on ... had one GTA, which did not follow the same standards as other GTA's and therefore his/her actions took some people's marks down unfairly. Unfortunately, in this situation, students were simply told 'this was not the case', without any option to have the coursework remarked by another GTA to clarify doubts for example."*

*"There should be a system in place where the student can review the exam with comments after it has been marked"*

*"...there are departments that are very open (provide all the relevant information) with regards to how exam grades are modified to get an 'appropriate' Gaussian curve. This has not been the case for my department, and has resulted in very different final grades to what we expected from the results we got in coursework for some specific modules."*

*"Wish there was more transparency in terms of examinations and grading."*

*"Occasionally, project work is unfairly marked."*

Our proposed solution to this issue is as follows:

- Provide students with detailed feedback and with the marking template or possible solutions used for courseworks.
- Implement blind double marking.

- A trial run could be done for just one coursework or a set of assignments to see whether this is something viable and achievable.
- Similarly to other universities in the UK and other departments within the College, provide exam grading feedback: scanned copies of exam and gradings confidential to each student, exam solutions and grading templates.
- Overall, explore options for more exam and coursework/assessment transparency.
  - For example, in the case of exams (but also courseworks) an examiner's report could be published, in which ideas such as most common mistakes, most difficult questions etc are discussed.

### 3. Communication and Organisation

Another issue raised among the students was the poor communication with the Department and the Student office, which contributed to an even greater lack of internal organisation, concerning timetables, exams and course selection (for 3rd and 4th years).

*"Organisation was also a big problem in this course, with us regularly obtaining exam or term timetables a week or so before the events."*

*"they tended to change entire course and examination structures for each year"*

*"exam timetables were only available about a month in advance, whereas other departments received theirs at the beginning of the academic year."*

*"the timetables in first and second year made it difficult to keep up with some subjects, as the study groups were sometimes the day after the lecture."*

*"a large part of courses which were available for previous years to take as electives in third and fourth years were made unavailable to my year"*

*"Administratively sometimes chaotic: exam timetables released only 1 month in advance."*

*"Option picking in 3rd and 4th year can be made available earlier."*

*"The student office seems very inefficient. Emails just go ignored and even when turning up in person they are very unhelpful. They seem to be letting the department down"*

*"Unreasonable exam timetable. For my department, you have exams and courseworks both before and after every single Christmas and Easter holidays"*

Our proposed solution to this issue is as follows:

- Create a forum/questions and issues platform for students and members of the department, where they can submit their issues and queries anonymously. This would be effective for students and staff, as they can see which queries or issues have already been answered.
- Explore options for better weekly timetabling – lectures and study groups more spaced out, so that students get a chance to attempt the study group questions.

- Similarly to other departments, the exam timetable should be released earlier during the year, perhaps even in the beginning of 2nd term. However, exam timetable was released earlier this year compared to the previous year, and we believe the Department has been working on this already.
- Discuss with representatives which dates are more suitable for students so that student opinion/voices are taken into account when scheduling deadlines or exams.

#### 4. Lack of Study Spaces

Students believe the Department needs more study spaces and working facilities, which other departments have but the Bioengineering one does not.

*“There are no lounge areas dedicated for students”*

*“You can spend half hour just for running up and down the library in order to find a seat after 11am during weekdays.”*

*“The study space for undergraduate is not enough.”*

*“There was not adequate space for students to work within the department building, and the library was often crowded.”*

As far as we know, this has already been notified and the department is seeking a solution to create and establish more common and working spaces within the college. Given that the Bioengineering Department is in the RSM, this could also be discussed with the Materials and Earth Sciences departments. Additionally, more information regarding the Department’s moving to the new White City campus should be given to students, and possibly creating more spaces for students there.

#### 5. Improvement of Panopto quality and consistency

Sometimes lectures are poorly recorded or not recorded at all due to the lecturer not being able to set up Panopto. Additionally, sometimes you cannot see what is written on the board on Panopto because the video is not focusing on that certain point. There are regular complaints from students during the year regarding missing lectures from Panopto.

*“Had a negative experience with certain lecturers purposely disadvantaging students that don't attend lectures in person, by writing on the whiteboard which is clearly not visible on Panopto.”*

Our proposed solution is as follows:

- Teach one or a few students in each year group how to use the existing technology for recording lectures so they can make sure at the beginning of the lecture that everything is set up.
- Ensure that lectures are being recorded on Panopto.

## Department of Chemical Engineering

Written by Athanasios Charos and Aris Mornto, in collaboration with Imperial College Union

Having read through the NSS comments of the cohort graduating in 2020, we identified certain key areas in need of improvement in our department's academic experience; we then based our recommendations on further NSS comments, our own experience as academic representatives, and a detailed interdepartmental discussion where similar measures were discussed. Although the majority of metrics lie in the first quartile for our department, we must strive for continuous improvement.

### 1. Academic support

Several students found the support structures for those struggling with the course to be weak and possibly stigmatizing. Struggling students often felt left behind relative to their peers, which led to their isolation and irreversible demotivation.

*'I often felt isolated when I was struggling. I didn't feel that anyone really understood what it was like to struggle, or to fear failing an exam.'*

*'Personal tutor system: fantastic if you get the right person (I did)' This comment highlights that whether or not a personal tutor is helpful hinges on who they happen to be, which in turn implies that they do not deliver consistently.*

*'The students could be over competitive. Limited information about where or how to find help. The atmosphere is depressing.'*

*'some students who are more insecure and need some sort of backbone to their learning may suffer from the lack of consistency between the lectures, problems and exams.'*

Clarify the role of personal tutors (to both the tutors and the tutees), to ensure that they provide the personal and personalized support they are meant to. More careful selection and some sort of assessment and training would ensure that personal tutors are helpful and suited to mentor the students. Moreover, a small budget could be set aside for tutors to encourage making tutorials less formal (e.g., taking the students out for coffee).

### 2. Lecture-coursework interplay

Some students found the lecture-based teaching style to be very inefficient, especially in combination with the coursework projects. This was due to: a) the long lecture durations which make it difficult to remain focused, b) the inescapable reality that most of students' time during term-time is devoted to projects (which are time-sensitive), leading to excessive cramming during the revision period. This incompatibility between lectures and projects was often reported to reduce the penetration of knowledge, and the formulaic manner of teaching was sometimes described as tedious.

*'Students cannot focus for the full 3 hours and end up having to learn independently anyway.'*

*'We are so busy during term time with projects that little lecture work can be done, so then April and may are very stressful, trying to revise for up to 10 exams rapidly.'*

*'Staying awake 60+ hours to complete coursework. Exam pressure.'*

*'During the research project, I wasn't able to go to any lectures at all.'*

*'you just have to waste time learning information that in most cases you do not need in your further career - if you like learning useless things just to get good grades, then this is a perfect degree for you'*

Introduce more interactive methods of teaching (n.b., perhaps not as optional extras, as we have observed from office hours that students are not likely to attend more hours of teaching on top of their admittedly loaded schedule). These could include tutorials (beyond first year), problem classes (as certain lecturers already do, but ensuring that student participation is meaningfully encouraged). This will probably be further looked into by the department on its own, as the Covid-19 situation dictates changes in the mode of delivery.

### **3. Outdated course content**

Students found the course content to be outdated, especially concerning the acquisition of programming skills and the integration with other relevant disciplines (and thus departments). The overall breadth of electives was also described as rather narrow.

Moreover, many of the various electives overlap in content, resulting in unnecessary repetition of material either between electives or between electives and core modules. This is due to the fact that the electives cater to both UG and MSc students, whereas only the former take core modules (The content of electives should be as close as possible to mutually exclusive).

*"In sufficient integration with the digital aspect of the engineering into the course.'*

*'Lack of integration with other degrees - especially IDX modules.'*

*'Highly theoretical nature to course. No AutoCAD (or similar), no basic process equipment course, only one course for energy and no courses for O&G (note: MSc have an O&G course), no Python - only MATLAB (fine to some extent).'*

*'the course in general does not provide students with the right skills to go out into the world. For example, there is no proper coding module which in a coding oriented world is absolutely unacceptable for an engineer as nearly every workplace I apply to expects a certain competence with coding and there is not even enough free time to learn it by myself because I am constantly trying to keep up with the course.'*

*'Limited elective choice (which will hopefully improve in future years) - if you want to do anything other than biological or optimisation, you will have difficulty finding the right modules'*

*'More cross-elective management is required to remove overlap in content.'*

Increase collaboration with other departments that offer more computer-oriented courses. By facilitating the integration of IDX modules in the electives scheme, students will be able to explore more topics of their liking, including modules outside the realm of Chemical Engineering.

Following the ever-improving model of Matlab teaching, a programming module could be included in one of the early years and the use of skills from said module could be encouraged (or required) in later projects.

Reconsider the variety of electives offered to ensure that it reflects not only the expertise that our department has to offer, but also the professional avenues that are open to students, and the growing areas in industry and research. The material taught in electives should be redistributed to avoid overlap.

#### **4. Departmental time management**

Several students pointed out that the department's time management practices are often deficient. Points that come up frequently include: timetabling issues, time between submission and feedback (of assignments, etc.).

*"Only thing is that the timetabling is bad. Especially in the final years, there are inescapable timetable clashes.'*

*'The lack of feedback if any on time.'*

*'there have been instances in the past where unfortunate timetabling for a select number of students has meant that students have had to work on 2 major pieces of coursework at the same time - each worth 10% of that year's grade. Those students felt disadvantaged, as not everyone had to juggle both projects at once.'*

*'Packed deadlines at the end of the term.'*

Communicate realistic deadlines for feedback no later than the day of submission, and adhere to them, communicating any unforeseen delays to the students. Monitor adherence to feedback deadlines centrally. If the department cannot arrange timetables in a better way, it would be very helpful to communicate openly with the cohorts affected, explain the issue, the challenges, and the reasons for which a particular option has been chosen (as opposed to making it seem like negligence). Lastly, a single person in the department could be charged with ensuring the timely communication of feedback, to facilitate the effort.

## Department of Chemistry

Written by Andres Martin and Francesca Wittmann, in collaboration with Imperial College Union

These recommendations are primarily based on the themes that were recurring in the open comments section from the NSS for the Department of Chemistry. Andres Martin (Academic Dep Rep) and Francesca Wittmann (Wellbeing Dep Rep) read through the comments and numerical data and compiled a tally of the most mentioned areas to improve. The three most heavily recurring themes were considered and developed into the recommendations outlined below.

Overall, this year saw a 13% increase in overall student satisfaction to 74%. Also, almost every more specific area saw increases in student satisfaction compared to last year. Only one area saw a decrease in satisfaction which regarded the Students' Union which now stands at only 32% (we will investigate why the Union scored so poorly). The areas that had improved the most compared to 2019 were academic support, organisation and management and teaching which had all increased by over 5%. In particular, academic support, which increased by 13% from 2019, reflected the effort and attitude of the department over the past few years to improve communication and support. There has been extensive work put in over the past few years to implement the curriculum review which now be entering its second year of being in effect. The feedback on the first year of the curriculum review has been extremely positive and hence it should solve many of the issues that were raised by students in older years on the old curriculum.

Whilst the overall picture has improved from last year, chemistry still underperforms compared to many other departments in overall satisfaction and hence there is still room for improvement. The department has always been incredibly open to discussion and change and so, this year we will continue to work closely with the staff and other student reps to try and address the issues raised here and to improve the overall student experience.

### 1. Standardise lab marking

This problem was brought up by a large number of students both in the NSS and throughout the year via the reps at SEC meetings. Many students felt that the marking of Laboratory/Coursework parts of the course were very inconsistent and relied heavily on the marker you were allocated. There were often contradictory comments made from different markers on the same experiments. There was also wide variation in the marks for different experiments and it was felt by many that it was unfairly easy to get good marks in certain experiments over others. Several people also mentioned that there was an unfair advantage of students completing identical lab modules later on in the term as they could gather information from previous students. Students felt this was unfair on the first students as they put in the same, if not more effort but didn't get as high grades.

*Coursework marking can be inconsistent and feedback unhelpful or absent altogether.*

*Grading is inconsistent, and dependent on the marker.*

*Some of the lab report marking had varied dramatically, and comments and feedback on the reports has been contradictory between markers.*

*Coursework could have better instructions, especially when preparing reports as those get marked very harshly*

*Lab report marking has generally been good for me (I have probably been quite lucky in this regard), but there has often been huge inconsistency in the expectations in lab report qualities.*

## **Proposed solutions**

### **Variation within same experiment due to different markers:**

There needs to be greater standardisation and guidelines given to the PhDs and GTAs. Potentially reassess the quality of the guidance given to the markers to ensure they are marking consistently. Perhaps the lab coordinator could even do some/more moderation of the marking. Students should also be made aware that they can contact with the lab coordinator if they feel strongly that their mark was unfair.

An exercise could be carried out at the beginning of each year of labs for the markers where they all mark 3 scripts from previous years (one first level script, one 2:1 level script and one 3rd level script) and then compared their notes and marks to try and get a standard marking style for that particular lab.

### **Variation between experiments:**

The difficulty and workload of experiments need to be reassessed to ensure fairness between them. The grades that are achievable should be similar across experiments. We could check the distribution of grades from each experiment to see which ones were perhaps unfairly over or unfairly under marked.

### **Variation between doing an experiment at the beginning of term and end of term:**

The department needs to make the GTAs and staff aware of the fact that in the first weeks, students are less prepared, and it is harder to get better marks. Later in the term students help each other and thus don't have to do as much research.

## **2. Ensure prompt and high-quality feedback**

A fair number of students complained that coursework feedback was prone to delays and the quality of it was inconsistent. Students felt that the quality of feedback they got was dependent on their marker. Students also suggested that staff should give constructive feedback instead of just ticks and "good". Students stressed that staff sometimes gave conflicting feedback within the same report.

*Coursework marking can be inconsistent and feedback unhelpful or absent altogether.*

*What one marker thinks should be included in a report may not be what another marker thinks; hence students are often given mixed information. There have also been the odd occasions where not much feedback was given, except a grade on the lab report. Despite most people getting decent grades on their lab report/assignments, we would really appreciate more feedback on both what we have done well and what we can improve on – often nothing*

*but a tick is given when we have done well/covered certain points in a lab report, instead of a comment saying what we have done well here.*

### **Proposed solutions**

The department should try to standardise the way they give feedback, making sure that all GTAs are aware of this. The department should also stress that markers should release feedback on the deadline they set. Staff should be advised to give constructive feedback instead of meaningless ticks. We will work with the student reps to compile a selection of documents that will be distributed to GTAs to aid their marking including:

- A 'comments bank' filled with suggestions for constructive, detailed, and helpful comments that could be given for each of the different types of labs and lab reports
- An examples document filled with good and bad comments that have been given in the past across all years.

We will also be creating a document of clarifying questions to be put to lab coordinators so that the reps can better understand the marking process and provide further recommendations for improvements.

### **3. Review course workload**

There were two parts to this overall theme. Firstly, there was lots of upset surrounding the old system of having June exams in Yr 2 that examined all of the courses for the year in 3 exams. Many students specifically said that this period was the worst period for them in their degree. This format has now been changed with the new curriculum review and there are now June and January exams.

The second part was general complaints about the general workload of the degree being too high. Some students felt lab hours were too long although this was outweighed by the number of students who thought long lab hours were a positive.

*Very large volumes of work in a limited time. Too stressful.*

*Sometimes there was a lot of work within a certain time period which was very stressful. The laboratory hours are very long.*

*The workload in second year was utterly ridiculous, with a frank choice between any form of a social life and a decent grade.*

*Workload is very high and unjustified. Assessments mainly measure your ability to cram last minute and regurgitate course material.*

*Year 2 was traumatising, the volume of exams and workload given to students by the department is absolutely shocking. This was the hardest I have ever worked with no benefits to my degree.*

## Proposed Solution

The main issue was Yr 2 June exams (i.e. having no January exams). The department listened to concerns and changed this by adding January exams to year 2 to spread out workload. So far, there has been very positive feedback about the splitting of the exams. The curriculum review will now enter its second year and some lecture content has been removed from each course. Hopefully, this has and will further improve the workload issue.

In general, the department could introduce some more time management resources to help students ensure they are managing their workload.

There is an issue with exam space and bookings that has affected the scheduling of exams in the past (i.e. having multiple exams too close together). The bookings are dictated by the college not by the department as the department does not own any of the exam space. It would be beneficial to address this issue (potentially ask the Union to help) and look into ways around it.

To improve general workload:

- Exams: The department should also ensure that there is sufficient time between the end of lecture courses and the start of exams to allow students time to revise. This has been changed in the years since the students who completed NSS took crammed exams.
- Coursework: The department should try to space out assessments (vivas or lab reports) which at least a day between them (some people had two assessments due on the same day or on consecutive days). The department is currently addressing this problem by mapping out students timetables to look for pinch points throughout the year that could cause problems. Extensive analysis on coursework/assessments has also been done as part of the curriculum review which will now enter its second year. This includes grouping students together in 'timetabling groups' to make it easier to track any pinch points and to minimise stressful periods. We will also inform students in lab focused year meetings at the beginning of each year that they can get in touch with lab coordinators if they end up with an assessment/deadline clash.

## Department of Civil & Environmental Engineering

Written by Rhys Rickard-Frost and Léah Camarcat, in collaboration with Imperial College Union.

Outlined in this document are four recommendations for the department of Civil & Environmental engineering for the upcoming academic year. These recommendations were based on the feedback received from the NSS student response survey as well as discussions with current students and other departmental representatives. 2020 saw a decline in 8/10 of the NSS question categories compared to that of 2019, however with good collaboration between the staff and student reps, working together to improve the student experience, this can be greatly improved.

### 1. Improving career guidance

A lot of students mentioned that during 4th year there wasn't enough time for job hunting, stressing that there is too much coursework and not enough flexibility with deadlines.

*"Little free time for job hunting"*

*"Too many courseworks thus not enough time for students to prepare for internships and job interviews"*

*"Lack of subject-specific career support. This course wants you to become an academic first, engineer second. Little career guidance is given in terms of getting jobs and internships"*

*"There is also a lack of career support, especially regards to internships and graduate jobs"*

More flexibility with coursework deadlines should be given. The Autumn term in 4th year is when most students are applying for graduate jobs, however if struggling with deadlines little time is available for career planning. Specific career orientated sessions or timetabled slots in which students can apply to jobs and receive career advice could also help to guide students into post university life (can be done in collaboration with the college's career service).

### 2. Allowing students to make more informed decisions on optional modules

There is not enough guidance for students when choosing 3rd and 4th year optional modules and not a lot of freedom concerning choosing the modules. Students are told to read the syllabus online and talk to older students however these views can be biased and the information on the college website is often confusing.

*"More guidance could be given for students for their subject selections in the third and fourth year"*

*"Not much flexibility with module choices/options and little opportunities to pick modules from a different subject."*

To allow student to make more informed decisions on their optional modules information on what sort of jobs taking a specific module could lead to should be given. Videos or informal written statements from the module coordinators themselves giving more module details on the course they teach could also be of use. For example is it content heavy, what's the coursework like. (i.e. a layman's introduction to the module). Could also have a timetabled 'options fair' where students from 3rd and 4th year ask all the lecturers teaching an optional module questions (can last 30mins).

### 3. A fairer personal tutoring system

The personal tutoring system is of extremely varied quality. Some students have fantastic personal tutors with whom they discuss both academic and non-academic topics with. However some students have personal tutors who make little time for them and meetings last no longer than a minute.

*"The support to students well-being are very limited, personal tutor do not actively engage with students most times"*

*"...the tutoring system, in general, feels as if it's designed for the university/department to acquit themselves of responsibilities"*

*"I think the personal tutoring system could be improved. Although my tutor is really nice, I don't feel like I gain much from going to see him/her once a term for 15 minutes"*

An anonymous feedback system for personal tutees which allows them to indicate whether or not they feel as though the personal tutoring sessions helped them in any way would give students a fair voice and also increase participation in the sessions. Having personal tutees meet their tutors in groups as opposed to one on one (unless specifically asked to by the tutee) would also improve the experience. This would lengthen the meetings and allow common issues and successes to be discussed, as well as strengthening to bonds between students. Perhaps each PT could have a budget to take their tutees out for a coffee (conditional upon COVID-19 of course).

### 4. Let's talk about mental health

The course can be challenging and stressful but the students do not feel supported with their wellbeing and mental health.

*"mental health welfare."*

*"stress."*

*"The course has had a large negative impact on mental health and stress in general"*

Proposed recommendations:

- Make sure students know the different platforms and staff they can turn to if they feel the need (wellbeing departmental representative, student wellbeing officer, ...)

- Organise in the most efficient manner the timetables and coursework deadlines to minimize stress at the end of the term where the workload can pile up
- Propose college wide activities that help deal with and reduce stress
- Have an open approach to talking about mental health issues to break taboos, acknowledge the difficulties of certain students and encourage them to come look for help. For instance, organising lectures or conferences on mental health diseases and/or how to help a friend who is suffering from it

## Department of Computing

Written by Codrin Cotarlan, in collaboration with Imperial College Union

Following the responses from the NSS the Union decided to create this document that contains the most common complaints of the survey and our recommendations for improving the student experience. Firstly, the departmental representatives created a summary of the main positive and negative themes in the NSS results. These summaries were forwarded to the Union and a meeting was held with all the department representatives in order to gather insight from other departments that may prove helpful in improving the student experience. We believe a good collaboration between the staff and the student representatives will be beneficial for both the course and the student experience and we are looking forward to it.

### 1. Increase module diversity for 3rd and 4th year

In the 3rd and 4th year, there is a wide variety of modules to choose from. However, many of these are based on AI, machine learning, or are maths and logic based, while not so many remain in other fields. This results in certain students having difficulty in choosing the right modules that would suit them. Some quotes from the students:

*'Course choices in the later years seemed quite narrow focused - lots of choices for people interested in AI and machine learning but lacking in distributed systems and software engineering.'*

*'Could have a wider choice of subjects sometimes (e.g., second term of fourth year is mostly Machine Learning oriented).'*

*'3rd and 4th year modules dominated by AI, maths and logic based modules, with less to appeal to people interested mainly in building applications, databases, server backend, web apps, etc.'*

This was not a common issue in the other departments, so we couldn't gather too much feedback. The department could add more modules whose topics are unrelated to those already presented, or could hold optional courses that are not for credit and serve to enhance the understanding on a particular topic. It may be a good idea to gather feedback from 3rd and 4th year students through surveys to see what they may have been interested in. Based on the responses we could investigate the possibility of designing new modules by contacting relevant academics who may have the necessary expertise.

### 2. Provide teaching training

In most modules, the students are happy with the lecturer that teaches them. They find their lecturers responsive and approachable. However, in some instances, the lecturer is not experienced in teaching, and this may result in a quality drop for those courses. Some quotes from the students:

*'The last year in particular was very disorganised and not well structured. Some of the teaching staff are researchers first and sometimes teaching does suffer.'*

*'Researchers do not make good lecturers - they need training on how to explain things in simple terms.'*

*'I have had lecturers who reuse the same questions on every exam, do not answer any questions on Piazza and overrun on their lecture schedule'*

We propose multiple ways for increasing the quality of teaching for some lecturers. For example, in Medicine some lecturers hold feedback exercises where the students comment on the quality of the teaching, the positive aspects of it and what could be improved. For Computing, if students believe a course could be taught better, they could contact their year representative who in turn would schedule a meeting with the lecturer to organise such a session.

Another possibility would be to arrange one or a few teaching training sessions where concepts such as slides structure, coursework and staff-student contact are explained. These sessions would be optional, but every lecturer should be encouraged to participate, specifically those who didn't perform so well (for example based on SOLE results).

### **3. Include support lectures for 1st years**

The computing course is designed in such a way that no prior computing knowledge is required. However the students that don't have this experience are at a disadvantage as there is a lot covered in the first year. Some quotes from the students:

*'Support for students with little to no computing/programming background is limited meaning first year can be extremely difficult.'*

*'The beginning of the course when they said that you don't need any programming experience, but you did need it.'*

The difficulty in the first year comes from both the amount of information taught in the lectures, but also from what the students are supposed to pick up on their own. For example, java is taught from scratch and the information and the labs are really well structured, but there is little information given about IDEs, compilers, git etc.. Since DoCSoc's introduction to linux talks proved really helpful, we suggest a similar approach, led by the department or in collaboration with DoCSoc, for introducing students to many of the tools they will use throughout their first year. Alternatively the 'programming tools' lectures during the C project could be extended in the autumn and spring term to cover those topics.

### **4. Improve the marking and feedback process**

The marking, feedback and duration of marking for coursework vastly differ between modules. At some times, the students receive satisfactory feedback for their work, but other times the

feedback is lacking, the marking is inconsistent across students, and it takes too long for it to be returned. Some quotes from the students:

*'Coursework marking is massively inconsistent, depending on your marker (again for some particular courses). All too often, there is no feedback, or a single sentence for pages of work. Marking for some courses takes months.'*

*'Marking criteria for coursework/tests/exams is often unclear resulting in varying marks that highly depend on the marker.'*

*'The feedback can be quite unfair, sometimes depending on which marker you get.'*

We suggest the department to aim to normalise the way feedback is returned to students. For example, lecturers should specify the expected amount of time it takes to mark a coursework and not to stretch the marking after that period. This would ensure feedback is delivered on time, even if the time period is quite large. Moreover, each lecturer should follow a standardised way of giving feedback, as proposed by the department, such as a guidance document across the faculty.

In terms of marking, it would also benefit the students to have access to a rough marking scheme. In this way the students will have an easier way of understanding why they received a certain mark. Moreover, if applicable, double marking or blind second marking would reduce the risk of an inconsistent mark. This could be tested with one assignment and if it improves the quality and consistency of the marking, it could be explored for other assignments as well.

## Department of Design Engineering

Written by Amy Mather and Maria Higgins, in collaboration with Imperial College Union

Comments from the NSS were distilled into their key themes. Recommendations are based upon the 8 most frequent themes. Each theme was discussed, reflecting upon specific comments from the NSS and further feedback given during our experiences as student representatives. The following recommendations are based upon the comments submitted to the NSS survey and in discussions with the Students Union and best practices shared by other Departmental Representatives.

It is worth noting we were surprised by some of the critiques given in some of the comments given the incredibly high scoring for the department in the NSS and so we investigated this discrepancy further.

Having spoken to some 4th years post survey the following reasons were given:

- A strong sense of community and the idea that lecturers were seen as friends, who they would not want to score badly.
- That the students were in it together with the staff and part of the success/failure of the school and so a bad grade would reflect badly on them.
- The school is new and yet to create a reputation and so a bad grade would hurt them.
- Design Engineering is hard to explain to employers and so a badly scored school would make it harder.
- Comments do not get reflected externally and there are still issues to be solved so that is where those concerns would be raised.

Whilst Dyson ranked first or second for most categories, this was only out of 5 comparable courses countrywide which were noted to not necessarily be directly comparable.

Most categories saw an uptick in scores from the previous years and this is to be expected from a new department, however student voice did see a downtick in score.

The lowest scoring categories were Assessment and Feedback, and Organisation and Management.

The main positive comment was about the department having a strong sense of community and we are hopeful that the following recommendations will help to strengthen our community further.

### **1. Disorganised Course/Poor course design**

The most common theme, present in [50%] of responses, was in reference to the course being badly organised or not designed well. This comment was often stated generally, but the following additional specifics were also given;

- topics being repeated and assessments that tested the same things,
- project deadlines being too consolidated,

- either past papers not being provided, or those that were provided were not representative of exams actually sat.

*“Organisationally the course has had some major issues.”*

*“pain-points in the organisation of certain aspects of the degree ... - in particular around management of the student workload”*

*“Increasing difficulty of an exam without forewarning”*

*“management can result in a crunch for the timing. Project deadline is too consolidated & make sure we are not repeat learning”*

*“There can be a more coherent integration between the different aspects of the course”*

*“More could have been done to give staff a greater appreciation for the programme as a whole, particularly new staff.”*

*“It was often the case in hindsight that some modules ... had too much repetition of other content [...] not tailored specifically for Design Engineering.”*

*“large changes have occurred but not been communicated”*

*“lack of rigidity in rules as the department was developing”*

*“Missing timetable for an Elective module that was never fixed.”*

*“The lack of sufficient past papers definitely negatively impacted on the quality of examinations - and the paper we had to take were often vastly different in style than what we were preparing from, which we were often led to believe would be like the final paper, so we were often caught off guard.”*

*“hiccups....often in terms of too much workload or timetabling,”*

The Department is now into its 6th year and so can no longer use being a new course as an excuse for its disorganised nature and course design failings.

The new HoD’s experiences provides a great opportunity for the department to evolve. However, some resistance to change has been witnessed, senior staff need to be on the same page to enable beneficial changes to be made. This needs to be addressed ASAP by the HoD.

We need to cultivate an environment within the department where mistakes are not shamed, and instead staff can feel comfortable to be open and transparent about things that have gone wrong. Communication when things don’t go to plan is vital to keep students aware of changes to the course and the reasons behind them.

Reducing repetition of topics and assessments within the same year can be solved via concatenation of modules and better communication between module leads. This has the additional benefits of reducing the workload, and freeing up space to cover topics in greater detail (see other problems mentions below).

By providing no worked solutions to the exams, there's room for miscommunication between staff and students of what is expected. This can lead to the students feeling surprised by the format and content of exam. Therefore, in addition to all past papers being provided, worked solutions should also be made available.

Discrepancies between modules occur as a result of not all module leads being aware of or following department policies. When this has been raised previously with the DUGS they have mentioned that they are not responsible for enforcing these policies. It is clear to us that someone must be responsible for ensuring the departmental policies are followed, to prevent further infractions. As the DUGS do not feel responsible, perhaps the HoD should be responsible for enforcing these policies.

## 2. Not in depth enough

Some students felt the course was not taught in appropriate depth both generally, but also in order to meet module aims and objectives.

*"Not enough materials to learn from."*

*"The material taught isn't always everything and you need to chase lecturers to get more if you want to really do well in each module."*

*"In the attempt to let us apply our knowledge in projects, basics in theory sometimes felt neglected."*

As mentioned in the solution above, by reducing repetition and lecturer overlap, time would be freed up to allow more teaching of fundamentals and theory to ensure all students are given adequate knowledge.

Priority should be given to learning opportunities rather than assessment. Reducing assessment volume would provide more time for self-study to compliment what the lecturers have covered.

## 3. Groupwork

Groupwork was often cited as a general problem and incorporated into issues of poor course design and work overload. Specific issues cited were; there was so much groupwork, often at anyone point in time you could be working with several different groups at once making time management difficult and stressful.

The heavy group-based workload forces students to prioritise what work is achievable for them to get done in the time. Differences in priorities result in more group working issues than would arise in a less high loaded environment.

As it stands there isn't clear policy for staff and students to follow when group issues arise. This causes a number of issues:

- A poor and inconsistent approach to adjustments in grading.
- No communication around what action has been taken to mitigate group working issues.
- Little to no guidance on what to do when in a smaller group than rest of the year.
- Through ridged application of webPA by module leads, students are able to get good grades even if they've done no work.

The volume of groupwork, combined with high standards for work produced, leaves students in a position where it is most efficient for the group if students repeatedly focus on a single key skill throughout the 4 years. This can result in some students missing out on developing other key skills that would be expected of a design engineering graduate.

When discussing with employers (e.g. for placements) their primary interest was in personal contributions, but because of the level of groupwork and the way in which it is structured this made it difficult to do with confidence.

*"stressful working in so many group projects"*

*"There are too many group projects so that it is easy to get pulled along by others."*

*"not enough time to always do a really good job - particularly with the amount of group work."*

*"group assessments (which make up a majority of the course), there is no effective way to properly gauge individual contributions"*

This has been a recurring issue in every SSCC since the school began, lots of different solutions have been tried to fix it. None have been possible to effectively carry out, or possible to communicate to all members of staff.

Currently all of the onus is on students and none is on staff to rectify the issues, this is problematic because it adds to student workload and stress. A clear policy needs to be put into place to enable consistent handling of group working issues.

The Primary solution is to reduce the amount of groupwork.

It has been found in the first year Groupwork is a much smaller problem where it contributes around 10% of the year grade. The problems really become serious in later years where the levels of groupwork are much higher (2nd Year 53%, 3rd 64-78% and 4th year 35-46%).

Hence a level closer to 10% is known to still give exposure to groupwork, but has much less of the problems and an individuals aptitude for Design Engineering is more reflective of their year grade.

Reducing groupwork would remove the issues trying to explain personal contributions to employers since more of your work is your solely your own.

In addition, the department needs to clarify its policies on the following group working topics:

- How mitigating circumstances should apply to group courseworks.
- How to handle group members who aren't contributing.
- How to handle bullying within groups.
- What to do when WEBPA doesn't fairly adjust group grades.

An investigation into the effectiveness of WEBPA should be undertaken with particular attention to the current manipulation of the system by certain individuals to their unfair advantage.

#### **4. Heavy Workload**

The general complaint around workload was with the sheer volume of set tasks. This is part of the poor course design issues which seem to have arisen due to insufficient communication between module leaders about course content and assessment.

Deadlines were also simultaneous and potentially set without knowledge of what all staff were setting when.

*"never experienced this level of extreme working at school and was not prepared for the volume of work"*

*"very heavy [workload] due to the need to balance several projects at once (as the course is coursework heavy)"*

After every holiday there are exams or courseworks to hand in. There is also coursework to hand in before every holiday, but also often for DRAW week. That is basically constant assessment removing the ability for students to manage their own time.

Changing these summative assessments to formative ones would continue to allow students that need hand-ins in order to be organised to be assisted, but also provides flexibility to those students that need to manage their time differently.

As discussed in proposed solutions to problem 1, better design of the course would remove unnecessary repeated assessments reducing volume.

Head of years (and initially during major revamp HoD ) should be responsible for assessing a draft proposal of assessments from each module lead so that they can spot when there is overlap between subjects and or deadline dates. They should then send back modifications around volume, timing and content of assessments. This should be then be communicated with the year reps (who have just completed that year) for final sign-off.

The heavy group-based workload forces students to prioritise what work is achievable for them to get done in the time. Differences in priorities result in more group working issues. Reducing

groupwork would prevent those with higher aspirations having to do the work of others in order to obtain a grade / standard of work they think is appropriate.

## **5. Inconsistent marking and Feedback**

There seems to be poor cohesion between staff and as a result there is no set standards for feedback across the department. Similar issues raised with marking.

*“Level of quality of feedback varies between staff members.”*

*“When assessed on certain modules, the mark scheme doesn't accurately reflect aims on the module itself.”*

*“Assessment is extremely subjective, inconsistent, and unclear in many cases.”*

Examples of student work which achieved different grades should be provided. This will enable students and markers to understand what calibre of work aligns with different grades.

Marking rubrics could be made more granular, this alongside training with staff across the department would help to provide more consistency in the marks assigned to students.

Elements of marking which are common across modules, such as whether  $\pm 10\%$  of the word count is acceptable, need to be covered by a departmental wide policy. This should include a consistent feedback policy. We suggest that the lower the grade, the more constructive detail needs to be included in the feedback. This will help to ensure students know exactly how they can improve their work.

A senior member of staff (alternate to the module lead) should do an in depth review of the assessment criteria and mark scheme and check it against module aims and lecture material for appropriateness.

Head of Year/DUGs/HoD should review mark schemes across modules and years for consistency and progression.

All work should be double blind marked. Blind marking often does not occur within the department.

Both markers must be of similar competence, where there is material disagreement a third equally competent marker should be consulted. The same 2 blind markers should mark all work. ie all students should be marked by the same people.

## **6. Industrial placement and Industry Support**

Students have been left to find their own 6 month industrial placement with little assistance. There is a lack of departmental ties to industry for a mandatory industrial placement requirement.

Most industrial placements are 3 months or 12 months, so a placement length of 6 months leaves students in a usual position. Lack of understanding about the degree subject in the wider

world compounds this problem as students are having to explain their degree whilst asking for special timing arrangements to be put into place..

*"limits to the amount of support available for finding the 6-month assessed placement that forms a key part of the course .....unusual timing and length of the placement .... means finding a placement can be a challenge and each year thus far ... a small number of students do not secure one"*

*"Not that many know about design engineering. It provides a challenge for employers."*

*"Unreasonable and unfair method of marking work placement - comments from employer and other co-workers weight nothing in evaluating my performance."*

The department as a whole need to make more links to industry. Each member of staff could be expected to bring in 3 people from industry. Different staff members should bring in different companies ideally, but at least from different departments if the company is large. Connections should be made to market the course and sell the idea of taking interns.

For example, when staff are pitching for funding, they should also be pitching the school interns as well - all of which should be good profile raising for the school; a win-win for all.

It needs to be ensured that the full amount of time that is meant to be spent by department liaisons is being spent talking with employer supervisors. Not only will this mean a more full and detailed level of feedback can be given, but it will help demonstrate to the employer than the university takes the placement seriously and will be expecting proper interaction and engagement from the placement provider.

Employers comments are potentially difficult to include into the grade since a student could get assigned to a negligent company supervisor and so using their comments as part of the grade may be unfair on many students. On the other hand, students who have been very involved in their placements may not have the time or energy they need to give their all to their report, so employer comments could be very helpful to these students.

A potential solution would be to have a bonus of up to 10% added to your grade. So, the written report is marked as usual, but that mark can be boosted by up to 10% by a metric of employer satisfaction. An example of how this could be measured is 4 areas where the student is marked out of 5(each star worth 0.5%): work ethic; professionalism; competence; and value added. This would minimise the impact of negligent supervisors, whilst offering some assistance to burnt out students.

## **7. Inadequate buildings and workshop**

The promises made on Department Open days were vast. Promises of state-of-the-art machinery within workshops that the Undergraduates would all be using as integral features of the course never materialised. Additionally, full completion of the building such that it could amply accommodate the students (and those of PG courses), still has not been completed and in fact

what will be delivered has now changed and been reduced. The workshop will no longer be part of the school and is now inherited from aeronautic department.

*"[Workshop] has often been disorganised due to high demand from students, in particular when there are multiple deadlines across year groups and courses within the department, leading to issues such as the workshop being unavailable to run sessions for particular year groups, or closed during non-term-time (in which students may still have coursework that requires building) for re-organisation, many tools and resources missing or misplaced, and physical space being overly occupied by students' work-in-progress."*

*"The DesEng Building is tiny, badly planned, not fit for purpose and the workshop is the opposite side of campus to the building. Doesn't seem like a problem, but when you've broken a wire at 10 p.m. before a deadline and you have to waste 10 minutes on a round trip to fix it, it's annoying."*

*"a lot of the facilities and resources that were meant to be available to us from the beginning were not available - such as our own departmental building and workshop"*

A direct suggestion from an NSS response:

*"there is a clear need for expanded workshop capacity for the course, better organisation of the workshop and more rigorous ways ensuring students follow best practices, even during times of high-stress around deadlines"*

Hire somebody to work out how to use the space available more efficiently - this would be of benefit to both students and staff.

Potentially move staff room to the basement allowing machinery to be put into the current staff room since low ceiling height precludes machinery, but not staff offices. This would provide some workshop space within the Dyson building.

Some thought needs to be given to the different types of working space required by students and staff. Open plan does lead to insightful conversations, but quiet working space is hard to come by for staff and students alike.

This is highlighted by the all too familiar interaction of staff asking students groups to leave the trapezoids as they've booked a meeting. With the large number of group projects students have, more spaces appropriate for meetings needs to be found.

## Earth Science and Engineering

Written by Ananya Mirchandani and James Wood, in collaboration with Imperial College Union

Upon receiving the National Students Survey 2020 results, we thoroughly read through the comments concerning the subject of 'Geography, earth and environmental studies' provided by Imperial College London. We have identified 5 themes that are in need of attention; (i) clarity in marking, (ii) communications of changes to the course, (iii) clarity in how student feedback is acted on, (iv) stress [financial, academic, personal], and (v) other recognition & union related issues. A brief overview of results through statistics:

- Overall student satisfaction of 95.8%; however, this was 2% less than 2019 results
- Assessment and feedback satisfaction of 76%; 8% less than 2019 results.
- Student voice (88.2%; 6.1% less than 2019) and student union (66.7%; 13.5% more than 2019)

This document entails recommendations to address the problematic themes. We are sanguine that through the collaboration between the Union, the ESE department and our student representatives, we can successfully work together to improve student experience.

### 1. Review Clarity of Swanson Criteria and Marking Procedures with Improved Transparency in Briefings

#### Background

The Assessment and Feedback satisfaction score for the department fell by 8% from 2019 to 76%. This is the lowest score of the satisfaction categories for the department (except Students' Union). Some students have the perception that marking is completed arbitrarily whilst others find the Swanson Criteria, that is used by the department for marking longer coursework, essays and projects, difficult to understand and believe it is not communicated effectively to students.

Other comments cite a general lack of transparency from the department regarding marking and moderation leading to some students feeling unfairly treated.

Some students felt that individual feedback was not given often enough during the degree following exams as only class feedback was given for some modules. Other feedback concerns concerned the varying experiences 4th year students had with their MSci supervisors.

#### Student Comments

*'Little personal feedback was given, usually just whole class notes'*

*'Really need to try to, in the 1st year, explain very explicitly as to how the Swanson criteria translates into how to get better grades during exams. For many people, the grades have a very poor correlation with how much they know about the subject and the skills obtained during the course. Sometimes people get really good grades for subject they revised very little on, and very bad grades for subjects they have worked a lot for.'*

*'More transparent with marking.'*

## Recommendations

- Clarify to students in briefings how the exam board moderates exams.
- Look into the possibility of releasing which exams have been moderated up and down. This would go some way to improving the clarity of feedback but there are other problems that would arise from this (e.g. Students feeling angry if one of their best exams is moderated down).
- More careful explanation is needed of the Swanson Criteria at briefings (could also benefit from repeat explanations for the later years). Make clear to students for which pieces of work the Swanson Criteria applies.
- MSci project feedback could do with a revamp alongside the change of coordinator this year.
- Other recommendations: introduce a minimum word limit on feedback; include equal positive and constructive feedback.

## 2. Revise Conduct of Communication

### Background

One area that had its satisfaction score drop was 'organisation and management'. This fall in satisfaction of 6.1% could be a result of strike action that impacted the department, or the confusion caused by the COVID outbreak at around the time the NSS results were being gathered. It is possible that students felt as though communication from staff was unsatisfactory during these major changes to the course.

It is difficult to say exactly what the reason for this drop is as there are few comments that mention it; in fact, there are several comments praising the department's organisation and communication.

### Student Comments

*'The college's response to the recent COVID-19 was unsatisfactory.'*

### Recommendations

The department could do more to communicate changes as early as possible and try to explain how they have arrived at a decision more clearly.

The department and the reps can do more to make clear to undergraduates that the students are consulted before any important department decisions.

## 3. Increase Transparency of Actions Following Student Feedback

### Background

It is not always clear to students how their feedback to staff is acted on. This is reflected in the reduction of 6.1% in the student voice satisfaction rating.

Comments mention that the outcomes from SOLE and other, mid-term surveys are not visible to students. They feel, at times, as though their feedback does not matter.

## Student Comments

*'I feel as though my opinions filled through SOLE have no impact. There are some lecturers who are told over and over again what they need to do to improve, and yet nothing changes.'*

## Recommendations

Encourage staff to put, at the start of the module, a slide up outlining what they have changed based on feedback from the previous SOLE. Encourage to do the same halfway through the module when they are provided with the results from a mid-term survey or SSCC discussions (Staff are on board with this idea and are already planning to advise lecturers to do so).

Year reps should get in contact with the lecturers before the start of each of their modules so that lecturers know who a good contact is for student feedback (This has been discussed in department meetings and is something, as dep reps, we will encourage year reps to do).

Monthly/bi-monthly email update from academic and wellbeing Dep Reps informing students what decisions have been made in the department and where students have been consulted.

## 4. Continue Supporting Students with Stress Management

### Background

Students find coping with stress especially difficult. They seek support from the department in issues which include:

- the lack of prior awareness about costs of fieldwork and mapping projects
- the inaccessibility of financial support when considering rent in London
- the intense rigour and workload of the course
- the psychological stress associated with faults and failure

## Student Comments

*'Lots of coursework deadlines make it hard for apply to jobs and internships.'*

*'It is not massively clear to students joining the course how much they will have to spend funding their independent mapping project (dissertation) in their second year, especially while paying rent in London.'*

*'Should really try to work more on encouraging people to speak about their problems, since many cultures considers asking for help a sign of weakness and many are disinclined to ask for help and try to tough it out by themselves.'*

## Recommendations

Each student has an individual experience with stress, and hence the prime solution is to ensure students are kept aware of the resources they can access to get support:

- The department can release a more transparent and detailed breakdown of expected extra costs by year (related to fieldwork and projects). By making this accessible on the college website, both current and prospective students can refer to it freely and thereon

plan their finances appropriately thus alleviating financial stress by encouraging planning.

- This has been implemented by the department in recent years with students being made aware of costs very early on in the degree program and the avenues for funding support are well highlighted.
- The representative network can work with the department to produce a concise document with a list of college-wide resources (E.g. Dr. Passmore, Dr. Day, personal tutors, relevant scholarship and bursary opportunities, etc.) that relate to pastoral, academic and financial support. These need to be more accessible to make students aware of their options. This document can be uploaded on the college website, the RSMU webpage. It can also be used in rep training and attached in relevant wellbeing monthly emails sent from faculty.

## 5. Reflect on Department Involvement in Student Recognition

### Background

66.7% agree with the students' union category however a significant portion of the students (33.3%) feel that the student union does not effectively represent the students' academic interests. Some students feel the unrecognized or uncelebrated in certain academic aspects as well as feel there is a heavy 'lad' or drinking culture within the union.

### Student Comments

*'The departmental society is essentially uninspiring, and at times I've felt ostracised by members within it.'*

*'Celebrate the Mapping Projects more! MSci projects get poster presentations, can geologists not show off their maps?'*

*'The Students' Union as a whole is not recognising my department as equally important as others.'*

*'The Students' Union for our department had been more of a lad culture in the past years. It has been changing and some non-drinking activities have been introduced but more of those would be better!'*

### Recommendations

Evidently between 2019 and 2020, the NSS results show there has been a 13.5% increase in agree responses to the students' union statement. The department and union have effectively been making changes to nurture more of a welcoming environment in our diverse community. These efforts will inevitably be continued. A few examples of changes that have already been implemented include:

- the introduction of the EDIC committee as well as the revised name of the departmental geology society
- the increased integration of non-drinking events across the union and department's societies (E.g. tea and biscuits, yoga, golf, Hill Cup events, etc.)

- the celebration and awareness of individuals seen through faculty emails and events (E.g. ESE women in STEM celebrations)

Continuing these efforts while especially respecting the vast cultural diversity of our community will further encourage improvement in this facet in the coming year. With respect to celebrating students, the department already offers various academic awards which perhaps could be introduced in the beginning of the year. The department is completely on-board with the idea that student projects should be celebrated more and are looking at ways to display projects through a Mapping Project Symposium and at Open Days.

## Department of Electrical, Electronic and Information Engineering (EEE and EIE)

Written by Arijit Bhattacharyya, Yannis Panagis, Snehil Kumar and Yusuf Ismail in collaboration with Imperial College Union

The following recommendations revolve around the themes of assessment feedback, the quality of lecture recordings and the level of student support with regards to mental health and career planning.

Comments were read through by all Departmental Representatives and discussed in a team video meeting. The discussions were based on assessing our own current student experiences, current transparency between students and staff and feasible recommendations to propose to the department

Overall, there have been decreases in 9 of the 10 student satisfaction ratings and no change in the other one rating, which was Learning Community. The largest percentage drops in satisfaction came from Assessment and Feedback (16%), Student Voice (13.7%) and Organisation and Management (6.9%).

We hope that the department staff will be willing to collaborate with us so that these recommendations are heard and put into action, ensuring an improvement in the overall student experience.

### 1. Improving the level of feedback for coursework

Many students have said that they have received inadequate feedback for coursework assignments throughout their degree. They feel that one of the main reasons is for this is a lack of communication between the respective course lecturers and the students.

*'After second year, there was no feedback on unassessed work. When coursework was assessed, it could take months to get the feedback at which time it is worthless. Half of the time, the feedback was minimal anyway.'*

*'Feedback hasn't always been timely or detailed.'*

*'Year group projects were terribly organised and it felt as if there was a complete lack of communication between staff. For the report for the first year project, we were told to write the report for the EE bug, but for some groups it was marked down if we didn't write some specifications for it to be on Mars. A lecturer has admitted that the communication between staff in the department was poor. Twice I have contacted staff and never had a reply.'*

The recommendation details are:

- Ensure a system where feedback must be delivered within a given time (such as 2 weeks), even if the delivery of this feedback requires extra help
- Insist staff submit personal feedback to each student which requires a minimum word limit. This will be to ensure that students can learn from the feedback given

- This will need to be monitored when the respective courseworks are assessed by staff and grades are returned to students, so that we can see whether the feedback is sufficient for the students to learn from. If not, the issue will be raised immediately with the relevant staff and/or at the next Student Staff Committee meeting

## 2. Improving the level of feedback for examinations

Many students have voiced their concerns on how they feel that they are given little feedback after having taking exams. They believe that receiving some notes of guidance would be beneficial for them to improve in the future.

*'No transparency in exam grading. It would be very useful to see where I have made mistakes on exams.'*

*'Obscure marking and moderation.'*

The recommendation details are:

- Organise post-exam sessions where students are free to consult their respective lecturers about the exam papers and ask for feedback
- Require lecturers to submit more specific comments on the examination questions, e.g talk about specific questions which students did not perform so well on. This aims to function as useful feedback for students who have just taken the exam but also as a revision guide for future students taking the same module
- This will require an initial consultation with all lecturers regarding their opinions, then it will need to be monitored during the revision periods and also upon the release of the next batch of past examination papers

## 3. An improvement to the Mental Health support facilities

Students feel that the mental health facilities in the EEE department have not provided enough support for them to manage the workload and pressure of their degrees. As a result, they say it has had a detrimental effect on their academic and career development skills.

*'Poor pastoral/mental health facilities.'*

*'Overwhelming pressure with little to no mental health support that I'd be comfortable using.'*

*'At times during the course, I have experience very negative thoughts about me not being able to complete the course or submit very poor pieces of work due to not having enough time'*

*'Overly competitive environment, high-grade performance generally encouraged to the detriment of student wellbeing.'*

The recommendation details are:

- Introduce the mental health support team to students from the beginning of the year
- As Departmental Representatives, our aim is to maintain contact with the new students in case they require us for anything

- Emphasise the importance of the EEE Mums and Dads scheme for new students and encourage current students to maintain contact with the new students
- This will need to be monitored throughout the academic year

#### **4. Improving the quality of Panopto lecture recordings**

Students believe that the quality of Panopto recordings, especially for 3rd and 4th year modules, is inadequate and makes it harder for them to study and learn.

*'Panopto mic, Panopto recording is very bad quality and most of the staff don't know how to use it.'*

*'Poor lecture recording facilities in the smaller lecture rooms (can't see the board).'*

The recommendation details are:

- Recommend a course that all staff must take to understand how Panopto works
- Be proactive with student feedback and concerns to ensure a good quality experience
- This will need to be monitored throughout the academic year

#### **5. An improvement to the Career Planning support for students**

Students feel that while there is academic support for the EEE degree, that there could be more support in terms of how to go about career planning. Students feel that they are clueless during their degree with what they want to do after they graduate and would appreciate additional guidance with this matter.

*'Lack of access to mentoring for making decisions associated with studying and career. Lack of stress management.'*

*'Personal tutors are meant to fulfil a pastoral role but are untrained and many don't seem to have an interest.'*

*'Little to no useful support for internships and job applications.'*

*'The course should be more tailored to features required by employers to make finding jobs more easily.'*

*'A focus on current industry practices would make students stand out to employers and more aware of how their degree is actually used in today's world.'*

*'It would be helpful if there was more advice on module choice, like 'it's hard to do more than 2 courseworks per term' or 'these are the skills required to take this module', etc. We currently have to rely on advice from older students and previous experience when it comes to this.'*

The recommendation details are:

- Organise online webinars which are tailored towards career planning for EEE students
- This will need to be monitored throughout the academic year

## Department of Life Sciences (Biochemistry)

Written by Isabelle Zhang and Nick Bitterlich in collaboration with Imperial College Union

The feedback and potential solutions presented in this report were made based on the annual NSS survey. Biochemistry is not only amongst the lowest scoring departments within the college but was consistently ranked in the 3rd and 4th quartiles in all categories compared to other universities. Categories that scored particularly poorly were "Assessment and Feedback" and "Learning Community. Despite this, a comparison between the 2020 and 2019 NSS surveys revealed that satisfaction with the course is increasing. Positive feedback included the tutored dissertation and final year modules, which are highly praised for flexibility and the intellectual challenge they present. In addition, excellent academic staff and course content allow students to learn the state of the art. Students also mention the open communication between staff and students. On the whole, staff are very willing to accommodate student opinion in decision making and are quick to adapt/respond.

In order to sustain positive change, we would like to collaborate with the departmental staff to improve the student experience. We believe the recommendations below can help with this.

Please note that some quotes originate from Biological Science students but apply to the wider Life Sciences Department.

### 1. Low student satisfaction and late of feedback

Poor quality marking is the most mentioned issue. Students believe feedback is insufficient and too vague to use as a foundation to improve upon. The justification of marks is questionable; there are many inconsistencies because some lecturers are more lenient than others. Related to this is that marking deadlines are often missed, and exam results do not even have marking deadlines. Half of the students believe their feedback has been timely and a mere 40.68% agree that they have received helpful comments on their work.

*Our feedback for our second-year dissertation was minimal. Myself as well as most people I spoke to received only about a line of feedback for a piece of coursework over 10% of our year and 4,000 words in length. I feel that more time could've been spent on giving feedback for this where it was such an important part of our year and relevant to our third-year project write up. I also feel that feedback on exams could've been delivered quicker.*

*Marking of coursework and exams sometimes is not fair as it is highly dependent on the lecturer's standards.*

*Sometimes grading criteria seemed arbitrary, and feedback wasn't clear on explaining why particular grades were given.*

*Marking isn't very fair and too subjective, and the grading takes way too long up to 4 or 5 months to get grades back.*

*At no point are you given a copy of the breakdown, which is difficult to memorise during the meeting. Therefore, it is difficult to monitor and compare one's progress in different components of the exam throughout multiple exams.*

### **Proposed solutions**

- Other departments have implemented a rule of 2 positives and 2 negatives for each coursework with which students are satisfied with. Markers are provided with a guidance document for the minimum amount of feedback required
- The Department of Chemical Engineering uses GTAs to mark small sections on their exams which decreases turnaround time. This can be beneficial for overwhelmed professors. Medicine has a double-blind marking policy with a potential third marker if the grades differ too greatly. These may be things to consider.
- Create a publicly accessible timetable or ensure the EO emails students a few days prior if the feedback can't be delivered in a timely manner. Having higher transparency with students will decrease their anxiety and trust in the process.
- Provide more detailed explanations/examples of what is expected for 2A/1st class answer
  - Through society/academic reps/PAL
  - Peer review coursework and exam answers; add a reflection section (unmarked) for each piece of coursework where the students evaluate their own work
  - Allow personal tutors/lecturers to go through exam papers or coursework in more detail.
  - Make the feedback sheet (filled out by markers) more detailed with categories specifically broken down for markers to comment on each. We reps can help in putting together the marking guidance and the feedback sheet for assessors. This should also inform students on what makes a 1st class/2A answer.

## **2. Demand for greater pastoral and careers guidance/counselling**

Outside of academic support, students also feel a lack of clear guidance for pastoral and career issues. For pastoral care, this is a broad wellbeing and mental health issue that the Department alone cannot fully address, but there are still complaints about lack of Departmental support in this area. This, for example, include the lack of interaction with a personal tutor. Some tutors appear to be more qualified at their responsibility than others and students critique this inconsistency. Career-wise, students feel that there is a great lack of support and information on career progression, both academia and otherwise (e.g. applying for a MSci or PhD).

*There is not enough support for students going through a rough time - we are told about things that are in place, but it is unclear or difficult to access them.*

*There is no care for undergraduate students. The university would rather make money than focus on the mental health and wellbeing of the students. The staff are mostly bullies and are utterly condescending when someone asks for help.*

*The mental health management services are oversubscribed and not very effective. The sense of community by belonging to a department or university was not really there.*

- Remind students how to access help services more frequently year-round.
- Staff should be trained to deal with these situations even if they are not necessarily in their area of expertise
- Personal tutors should be met on a more frequent basis so that students are comfortable opening up to them about any issues. Increase frequency in first and second year by 50%.
- Medicine has set aside a budget that tutors can use to bond over an informal lunch or coffee much to their students' satisfaction. Similarly, Chemistry has organised Mario Kart sessions which help staff and students interact more on a casual basis. Monthly tea and coffee sessions were held to encourage community and networking. While this may not be possible due to Covid-19, this should sustain long-term growth.
- Students should receive more guidance on future career paths/options (eg. how to enter research, apply for masters/PhD etc...). Greater information about how certain decisions may shape their future should be provided. There should be more career guidance sessions tailored for life scientists and advertising for these should be increased (which the reps can help with).
  - "Not all departments are well off - the number of internship bursaries awarded by mine was a joke. The course lab training I received was likely insufficient alone to break into the research world."

### 3. Undesirable exam formatting

The current course structure is weighed heavily on exams (75%) and is a source of immense pressure more many students. Students think exams do not accurately reflect their academic abilities and efforts, which they may have demonstrated in coursework, because of the constrained 3 hours given for each paper. Secondly, many complaints show frustration with the lack of proper feedback on exam scripts; students don't know how to do better on exam performance better and often hit a ceiling with improvement. This is exacerbated by the essay-based format of exams, which allows marking to be more subjective and forces revision to tend towards fact memorising. This phenomenon may also be a reflection of teaching style, where students are frequently not given full explanations of concepts and their links, and are told to accept them as they are.

As a result, some students also feel negative about the current exam schedule, where exams are right after Christmas/Easter. The high-pressure nature of our exams made students feel like they cannot properly enjoy the break to take care of their wellbeing, or that if they do take time off, they will be unprepared.

*The exam structure may be improved. I think long projects would be much more intellectually stimulating than written essays during exams for science students.*

*The lack of past papers and guidance of how to do well in exams and the absolute lack of feedback in exams results in me cycling through trying my hardest revising, not getting good grades, not knowing where I went wrong and thus not getting the top grades in my next exams.*

*The course (is) at times, stale and tiresome, especially in third year - I got quite fed up with having to take out a month of my life to block learn 300 pages of notes to then regurgitate them in a 3-hour exam.*

### **Proposed solutions**

- Greater weight could be allocated on coursework and projects which students could spend time perfecting. Such projects would allow students to pursue their interests and showcase creativity, which is very popular as demonstrated by the TD and FYP. These would shift some burden off exams
- During personal tutorial meetings to review exam performance, provide students with a worksheet to fill in to record areas to improve on and reflections
  - Students would ideally receive a physical copy of their exam during this time (even if it must be returned at the end of the session)
- Postpone all exams by a week? The extra week inserted can be used to cover "light" material that will be required for the upcoming semester

### **4. Tardiness of department: occasional last-minute organisation and preparation**

A third of the students brought up the last-minute nature of scheduling which made the admin seem under-prepared or disorganized. This is often due to many small last-minute adjustments in the course, for instance, BB uploads/lecture handouts/late feedback, which ultimately accumulated into the negative impression that the department is poorly organised.

This significantly affects students' feelings of preparedness. When students are unable to reliably print out PowerPoint slides before the lecture, or cannot review practical protocols before the lab session, they feel ill-equipped and unprepared to bring their best efforts to the course. For example, with the lecture slides students can review them before the lecture, connect this to their prior knowledge, and during the lecture can better anticipate what connections to form between lecture material to strengthen their understanding. The results from the NSS survey corroborate this: 47.46% agree that the course is well organised and running smoothly down from 62.31% the previous year. Biochemistry is the lowest scoring department for "organisation and management", beaten only by the Union.

*Overall, the communication and last-minute nature of this department has been the worst part of my degree. Stricter deadlines should be made for staff so that students have resources available within a reasonable timeframe.*

*Students didn't have access to the new PowerPoints given after the first set of first year exams. Throughout 1 and 1/2 of a certain professor's lectures, no one had the lecture slides. They were only given halfway through the second one and only students with laptops could access these. The professor wasn't aware of this and had provided the slides to the Education office.*

*We were told to read up on a practical protocol, but I could not find it on Blackboard. I followed this up with the professor and he/she said that he/she added it a week ago. Turn outs*

*that the material was not released to students. He/she managed to sort this the next day by contacting the education office. If I had not been organised and informed him/her of this issue, it is likely this would have gone unnoticed until nearer the time. The same occurred for a drop box to submit a practical report. It was not made available until I emailed about it.*

### **Proposed solutions**

- Allocate student leaders that can keep track of the resources required and take note of tardiness. This ensures higher reliability with when and where academic resources can be found online
- Higher transparency with students about how long marking takes, or what issues are causing tardy organisation. Even if staff cannot hand something back in time, it greatly reduces the anxiety of students if they are at least given information about what is happening
- Emails from the EO for every piece of coursework when the feedback can be anticipated (a week after the student submission date?)

## **5. Desire for greater quantitative skill sessions**

Students would like to be taught more quantitative material, or given more practice opportunities for the existing content, e.g. maths/chemistry/physics/programming. They believe it is necessary to be competitive in the job market, and that these are useful transferable skills for problem-solving. These would also shift some burden off the essay-based assessment in most modules.

*First year dropped students in the deep end. There was no acclimatisation, and not many worksheets were provided when learning new and difficult mathematical concepts.*

*Lack of teaching in maths, programming, and general quantitative skills.*

*In my first and second year, we didn't have good training to solve problems; in terms of problem-solving skills, there was too large a jump between the first two years and third year.*

### **Proposed solutions**

- More problems sheets on these topics (similar to the Math lectures provided to first year Biochemists this term under the helm of Dr Mansfield)
- Incorporate more advanced maths and computing skills in relevant aspects of the course (e.g. enzyme kinetics, structural biology, bioinformatics)
- Computational Biology society could compile a list of questions/resources that may be used by the students
- Recruit lecturers from relevant departments (i.e computer science, mathematics or chemistry) to hold optional lectures tailored for life-science students

## **6. Mitigation of inconsistent teaching**

Students commonly mention that some lecturers do not meet their expectations at teaching or do not make the content enjoyable to learn. It is also mentioned that lecturers do not coordinate their content well enough or that their standards of marking differ too much for exams to be fair.

*I think each lecturer isn't consistent - Every aspect of the course taught separately and the connection to each other and the course as a whole isn't that strong. Feels like each lecturer doesn't know what the others teach.*

*The lecturers are useless at teaching; most of them don't bother making an effort to explain things in a clear understandable and interesting way. Most of the time I had to just learn by re-watching the lecture recording since in the lectures themselves no matter how interesting the content itself was, I was unable to follow*

*A lot of time it feels like I 'self-taught' myself a great portion of my degree, simply because the lecturers were hard to understand, or taught complicated material during the lectures without fully explaining the fundamentals.*

### **Proposed solutions**

- Anonymized survey for constructive criticism on how concepts can be taught more easily (SOLE but SOLE occurs late in the term when students don't always remember or want to provide this feedback anymore)
- Better peer review amongst lecturers about teaching performance (improvements are already occurring in Life Sciences)
- Running a trial of blind double marking for a project

## Department of Life Sciences (Biological Sciences)

Written by Jeong Hyun (Joy) Yoon and Paniz Dogaheh in collaboration with Imperial College Union

The 2020 National Student Survey was answered by 68 students and showed improvement in results in 5 different assessment categories; teaching, assessment and feedback learning resources, learning communities and students union. The student satisfaction was generally very high with the overall satisfaction rate reaching 87%. Especially for the standard of teaching on the course, at least 80% agree that staff are good at explaining things, making the course interesting and that the course is intellectually stimulating and has challenged them to achieve their best.

However, there always are areas of student experience could be improved. Our analysis showed of 5 common themes that could be improved to raise student satisfaction of the course. These points were mentioned more than 3 times separately in the NSS free comments section and also came up frequently in the NSS Departmental Recommendations Meeting. The issue that arose most frequently was the low quality and untimeliness of academic feedback. The following are overviews of each issue and the possible recommendations that we came up with to address them.

### 1. Academic Feedback

Students were most commonly unhappy with the quality and quantity of academic feedback they received throughout the year, in both coursework and exams. Students felt that feedback was untimely, insufficient and inconsistent among markers. Inconsistent marking, in particular, was raised as problem in 12 different departments.

Only 54% agreed that feedback on work has been timely, and only 51% agree that they have received helpful comments on their work. The following are the free comments from the graduates regarding academic feedback.

*"Feedback is not enough or detailed enough."*

*"The quality of feedback is variable"*

*"Students meet with personal tutors to receive the exact breakdown of marks awarded for different components of the exam - which are only given verbally. At no point are you given a copy of the breakdown, which is difficult to memorise during the meeting. Therefore, it is difficult to monitor and compare one's progress in different components of the exam throughout multiple exams. It would be appreciated if a copy of marked transcripts were made available to students to allow us to reflect on feedback post personal tutorial."*

*"Our feedback for the second-year dissertation was minimal. Myself as well as most people I spoke to received only about a line of feedback for a piece of coursework over 10% of our year and 4,000 words in length."*

*“The 2-week criteria that work should be marked with feedback and returned has never been adhered to at my time at the uni.”*

The following are a few recommendations that could be taken to improve the consistency, quality and untimeliness of academic feedback. The exact timeline for the suggestions to be implemented is not established.

For improved consistency of feedback:

- Double-blind marking for coursework as well as exams and potential third marker if marks differ greatly between two markers. With COVID-19 and the subsequent transition to online assessment, implementation of this scheme would be easier as the Turnitin blind marking plugin can be used. The second marker not being able to see the mark given by the first tutor will greatly improve on the consistency of the feedback and students’ trust on the marking process. This process is already successfully implemented in Medicine and students are highly satisfied with the scheme.

For improved quality of feedback:

- Give copies of exam papers to students so that we can keep record of feedback in context. Most of the comments on exams are dependent on the context, not stand-alone. With a copy of exam papers with comments, student will be able to fully understand what the comment means and correctly reflect on their weakness and address them in the next exam.
- Worksheets can be made to be completed during our exam results tutorials so that we can record exam comments and feedback and reflect on them with our tutors in a more structured way.
- The comments section on the front of exam papers is often quite empty, so if there was a more structured requirement as to what markers should write, for example 2 things that went well and 2 things that could do with improvement.
- Including previous feedback in the next set piece of coursework so that marking is standardised
- Lecturers who have submitted questions for exams could write a short exam report for their given question, highlighting what they were looking for, what went well and what did not across the board. Some lecturers do this already in Biochemistry.
- Peer reviews done anonymously for coursework like essays and lab reports (Biochemistry has done this before) as an exercise for students.

For improved timeliness of feedback:

- If 2-week turnover for coursework results is too stressful for professors, we could change it to 3 weeks.

## **2. Scheduling of Deadlines and Assessments / Workload**

Students felt that there isn’t enough time between finishing modules and the beginning of exams. For third years, they were only left with a minimum of 1 week (Feb exams) and a maximum of 2.5 weeks (Jan exams) to revise for multiple exams, including the module that just

finished, bringing on an intense workload and a lot of pressure. Students also commented on the schedules for the release of exam results not being organised enough.

- 92% agreed that they had the right opportunities to provide feedback on the course but only 60% agreed that it's clear how students' feedback on the course has been acted on.

*"Really do need to give longer than a weekend off after February exams. Many people had worked endlessly since September, even through Christmas due to the Jan and Feb exams. It is unfair to expect people to work continuously (every day-weekends included) from September-March."*

*"The exam dates were too soon after the holidays, it would have been nicer if we had a proper winter break for Christmas and then the revision. The exam structure may be improved. I think long projects would be much more intellectually stimulating than written essays during exam for science students."*

*"After finishing course, only one week for revision for exams. Very intense."*

*We never have a specific day to expect exam results, which is often stressful as we never, know when they're coming in. It also takes much longer than other courses to receive exam results."*

The following are a few recommendations that could be taken to improve on the scheduling of deadlines and create a more manageable workload for students. Ideally, we would like to see some changes to structure of the year this year, if not by next year.

For improved scheduling of deadlines,

- 3rd Years - Reading week (if possible) moved to February just before exam. We could do a survey before deciding on exact details with regards to dates.
- 3rd Years - Potentially delay the end of third year and stretch the current academic schedule out so that the exam timetable is less rushed.

For improved timeliness of exam results publishing,

- Publish a date for the release of exam results further in advance and provide this on blackboard sooner this year.
- Calendar in common room with key dates eg. Exam results release dates and deadlines for coursework etc. This could be a bigger, simpler version of the calendar given out in the year handbook.

For improved workload for students,

- If exams and coursework weighing are to remain the same, we should have more essay writing and exam technique workshops to help students attain the grades that they deserve, as most if not all of our exams are essay-based, which many students struggle with, especially if English is not their first language.
- Replacing some written lab reports with oral reports, which is simpler than writing a report. DPE recommendation.

### 3. Personal Tutor System / Pastoral Care System

There were mixed reviews on the personal tutor system. Some of the students were satisfied with the amount of support and help given by their personal tutors whereas some students were unhappy and disappointed with the quality of care they received. Mixed responses indicate inconsistency in the quality of the personal tutor system and according pastoral care.

*“Personal tutors vary widely in quality.”*

*“I have had three different personal tutors in three years - I have only met my current tutor once. This not only means that I don't feel comfortable confiding in them but also struggled when looking to get references.”*

*“Pastoral care of Imperial College is not sufficient.”*

*“Fewer staff-student contact hours than expected for personal tutors.”*

*“Personal tutor was negligent, rude and condescending. Mental health support and pastoral care by the specific tutor was suboptimal. (Nevertheless, some lecturers when approached were welcoming and willing to give advice and support).”*

The following are a few recommendations that could be taken to improve inconsistency of the personal tutor system. An exact timeline for the suggestions to be implemented is not established.

- Staff training sessions on pastoral care/wellbeing of students – personal tutors are advertised to be the first point of contact when suffering academic, wellbeing and mental health issues. Hence, personal tutors should be trained to deal with different wellbeing-issues even if it's not necessarily in their area of expertise.
- Setting clearer agendas for personal tutorials - responses from the wellbeing surveys can be used to set agendas.
- More frequent personal tutorials - making 1 group and 1 individual personal tutorials mandatory each term. Currently there are 4 mandatory personal tutorial sessions per year (2 in Autumn term, 1 each in Spring and Summer term). It was found that some students have one group personal tutorial, which is regarded as their mandatory tutorials and other have individual ones. Unifying the variability of style of personal tutorials will be able to reduce some inconsistency of personal tutorials students receive.
- Highlight alternative contacts that students can approach during lectures and on blackboard. This is similar to the official wellbeing service access slide (exemplar slide in solution for problem 4), prior to the start of the first lecture of every lecturer. This way, all students will be aware of their point of contact when they would like to talk to someone other than their personal tutors.
- Tutor-tutee hangout sessions – the first group personal tutorial can be replaced with hangout sessions where department tutors and tutees go out for lunch/dinner together, paid for by the department.

- Student feedback on personal tutors - students asked to give feedback on personal tutors, and from that, students were brought in for questioning, and from that staff and students were rearranged. This has been successfully implemented in Chemistry.
- Easier system for applying to change personal tutor groups

#### 4. Student Wellbeing

Options for mental health facilities are not advertised well and students are not reminded of the options enough. Also, the quality and availability of consultation sessions are limited according to the students.

*“There is no care for undergraduate students. The university would rather make money than focus on the mental health and wellbeing of the students.”*

*Appalling mental health facilities.”*

*“There is not enough support for students going through a rough time - we are told about things that are in place, but it is unclear or difficult to access them.”*

*“Pastoral care of Imperial College is not sufficient.”*

*“The mental health management services are oversubscribed and not very effective.”*

The following are a few recommendations that could be taken to improve student wellbeing. All the department-specific points could be easily implemented this year.

- Clear introduction on how to access and use the college wellbeing facilities in the beginning of every year with an explanation of how it’s set up and how it works
- Compulsory addition of official wellbeing service access slide prior to the start of the first lecture of every lecturer. Constant advertisement of wellbeing facilities during lectures or in lecture slides.
- Improving wellbeing surveys and making them more specific so that wellbeing events can be tailored to the most common problems faced by students on campus
- College-wide improvements on wellbeing support and facilities e.g. Recruiting more wellbeing consultants and investing more in mental health provision
- On blackboard, making a course titled ‘wellbeing’ so that wellbeing contacts and information aren’t hidden within ‘Lifesci central’. In writing this document we found it very hard to find these contacts shown on the slide on blackboard ourselves, and some of the links provided led to errors.

#### 5. Careers Resources

Students felt that they weren’t introduced to the importance and the process of applying to internships and industry placements sufficiently in first year. In addition, students felt that there wasn’t a good enough breadth of modules to cater to different career interests. There was a 5% decrease, from last year, in students who replied that there was good advice available when they needed to make study choices on their course.

*"Lack of choice and variety for environmental/ecology-based modules. There is often only one module per choice."*

*"Definitely that there's a focus on subjects and modules that let you go into a Pharmaceutical job rather than Ecology that let you go into a more profitable job."*

*"Fewer staff-student contact hours than expected for personal tutors. I did not receive much advice on career progression and opportunity hunting."*

*"More needs to be done in terms of students to do research, to find their interests."*

*"Not all departments are well off - the number of internship bursaries awarded by mine was a joke. The course lab training I received was likely insufficient alone to break into the research world. The Union building and its management aren't timely and organized."*

*"Needs to be a better system at the start of third year to explain the options students have after graduating. Should emphasise the importance of internships, placements, and work experience in Year 1 so that students can start doing these earlier and are less stressed later on."*

The following are a few recommendations that could be taken to informing students of future career choices and to help build their future.

- Careers week/allocated personal tutorial session/careers consultation in careers centre, dedicated to careers planning prior to 3rd year module selection so that students can try to tailor their specialties to what they would like to pursue after graduation. The online version of the departmental one exists, so we'd have to promote this better.
- Careers workshops - Alumni doing CV workshops for you from different industries – tips on how to tailor your CV for that industry
- Tea and coffee sessions with biology/biochemistry alumni who are willing to come in and speak about their career paths (in COVID times this could be quick 30-minute Q&As on Teams). Could collaborate with BioSoc to organise this.
- More promotion and advertisement of careers service / activities – could do a frequently asked questions about the careers service slide to put in lectures, similar to the wellbeing one.
- Specific careers advisors for biology having more visibility
- More focus on internships from year 1 – careers talks so that students know how to apply to internships and what firms are looking for.

## Department of Materials

Written by Susannah Lea and Emily Li, in collaboration with Imperial College Union

On July 23rd, each departmental representative received the National Student Survey (NSS) outcomes for our respective Departments, detailing the responses to the survey, a comparison chart of Percentage Agree scores between NSS 2019 and NSS 2020, a table of our NSS 2020 college rank in sector, and anonymous comments. To aid the Union's survey response this year, the Academic and Wellbeing Reps worked together in identifying positive themes, as well as issues to be addressed in the NSS recommendations. It is encouraging to note that overall student satisfaction increased by 4.4% (to 71.1%) from the previous year—especially in terms of academic support, organisation of the course, and learning community—but there is still room for more improvement. Following a meeting among all Dep Reps and the Student Union, sharing recommendations and queries of recurring themes, we devised some department-specific proposals to be implemented throughout the year. We hope for good collaboration between the staff and student reps, working together to improve the student experience.

### 1. More Comprehensive Feedback

Many students brought up the lack of effective communication between the students and teaching staff, especially in terms of marking and other feedback. Delayed, inconsistent feedback was a common concern, as well as the lack of a clear mark scheme. Of the students who had more frequent contact with lecturers, some were discontent with their responses. Satisfaction for assessments and feedback was 50.2%, which is a regression from the 2019.

Quotes from NSS comments:

*"Many coursework and exam feedback not detailed, transparent and punctual. Many staff not reachable by emails/in person the entire academic year."*

*"Feedback on coursework always takes more than a month, and always takes longer than what they've told us it would take them."*

*"Toxic/Threatening/Condescending replies from lecturers and course directors in either email or person-to-person formats (???, ???, ???, ???)."*

*"No past paper answers/marks. We never get our exam papers back. How will we learn from the mistakes we made in the future if we never get them back? What if a mistake we made in the exam is repeated in a real job environment because we never got proper feedback from the exams?"*

*"Most lecturers are extremely bad at explaining content. They assume students have the same intellect as them, or the same understanding of the topic."*

*"For each exam, we would be given two practice papers, but the department refused to provide a mark scheme not giving any suitable reason as to why."*

*“Feedback received was often based on subjective opinions rather than objective ones then there was inconsistency in teaching.”*

*“People from high up in the department looking disinterested and chuckling between themselves during presentations.”*

Proposed solutions are:

- Marking rubric or at least outline provided with the coursework description, common practice already in Chemical Engineering
- Making rubric filled out and made available for student for every piece of coursework to prevent grades being based on subjective opinions (although comments explaining marks given would be useful alongside this)
- Method of holding staff accountable to responding to emails and queries e.g. forwarding emails that have not been responded to tutors to help chase up, asking lecturers to have an ‘out of office style’ message if they will not be able to respond within the standard 3 working days
- Providing a mark scheme or at least comprehensive report for exams, could just be e.g. numerical solutions for calculations with a verbal description of the method if full working does not want to be provided
- Allowing students to review exams if requested in presence of a member of teaching staff
- Training/ guidelines for staff and GTAs on explaining content and providing appropriate and consistent feedback
- Inspired by positive experience from Medicine – blind second marking
- Suggestion from other departments – name of markers given so further feedback can be requested
- Suggestion from other departments – giving an example of work from a previous year and an explanation of why a certain mark was given
- Suggestion from other departments – ensure there is a clear and well-known system to flag poor feedback
- Suggestion from other departments – more structure to feedback e.g. at least 2 things that are good and 2 things that could be improved

## **2. More Effective tutorial/ workshop system**

Some students did not find the tutorial/workshop and personal tutorial system effective and some found it hard to get in contact with tutors.

Quotes from NSS comments:

*“There was little opportunity to practice what was taught in the lectures; each lecture series (usually 8-10, 1-hour lectures) would have one or maybe two tutorials in which we would be given only a few practice questions. Also, if you missed the tutorial it was more likely than not that the answers wouldn't be given out.”*

*“Tutorials and lectures were cancelled, unprofessionalism from people organising it.”*

*“Lack of workshops/tutor interaction after first and second year. My tutor wasn't even in London most of the year; he/she lives outside and only comes in on certain days.”*

Proposed solutions are:

- More workshops and question sheets with answers and continued past 2nd year
- Better organised personal/ small group tutorials e.g. having all personal tutorials formally timetabled and making sure that tutors cannot cancel only change the date/ time of tutorials if necessary
- Ensuring that assigned tutors are generally in university at least half the week and that tutees are aware of when their tutor is available
- Inspired by positive experience from Medicine – tutors are paid for the additional work instead of using their free time. Materials are prepared by faculty for tutors to use in meetings.
- Inspired by positive experience from ChemEng – separate academic/welfare tutors, bad tutors were ‘weeded out’ (students were asked to give feedback, those with mainly negative feedback did not continue the role)
- Inspired by positive experience in Biochemistry – peer review for staff, on alternate years staff will either have another staff member sit in and review a lecture/ workshop or review another staff member
- Inspired by positive experience in Mechanical Engineering – lectures respond to all SOLE comments, which is released in an email
- Suggestion from other departments – have a survey 1/3 of way through lecture course
- Suggestion from other departments – peer assisted learning sessions run by 3rd/4th years for 1st/2nd years e.g. in exam technique/ lab report writing
- Suggestion from other departments – student-staff interaction at networking events

### **3. Improved Wellbeing Support**

Some students reflected on the lack of support within the department in terms of how mental health and wellbeing was dealt with.

Quotes from NSS comments:

*“My university could make allowances for students who might be disadvantaged by recent circumstances.”*

*“Professors not concerned about our wellbeing.”*

*“When asking for help, talking about struggling, course directors basically say, ‘man up, we had to do worse when we were younger’.”*

*“The slow, sometimes inexistent responses regarding our mental health concerns make us believe the department does not care. We get cookies for our mental health and that's about it.”*

Proposed solutions are:

- Training for staff (particularly personal tutors) in supporting student wellbeing
- More communication in the department about mental health and what allowances can be made and services on offer
- Personal tutors checking in and speaking about wellbeing with tutees for a minimum of e.g. twice a term and giving opportunities for tutees to speak with them in private
- Potentially having tutors have a short 1:1 with each tutee once/twice a term (similar to a personal development review in a workplace), where any wellbeing issues could also be raised
- Suggestion from other departments – board games/ Foosball table etc. in common room to create sense of community
- Suggestion from other departments – make tutorial rooms and lecture theatres available to students when not in use e.g. for individual study and group work
- Inspired by positive experience from other departments – medics meet with tutors at least 3 times per term, Mechanical Engineering has 1st and 2nd years meet with tutors every other week, Chemistry wellbeing meetings twice a term

#### 4. Improved Organisation

A lot of students reflected on the poor organisation of the course. Timetabling issues and deadline clashes were a recurring issue. Though there has been a 6.3% rise in satisfaction regarding 'organisation and management of the course', the percentage agreement for this section of the survey only sits at 55.2% and can still be improved.

Quotes from NSS comments:

*"Timetabling issues that felt weekly. Reports due in for the next day."*

*"Placing assessed labs into the timetable after the lab took place."*

*"First 2 years involved writing a lab report every single week, giving students no time to have any social life/hobbies."*

*"Conflicts in lecture scheduling."*

*"Some organizational problems in regard to getting information to students quickly and timetabling errors."*

Proposed solutions are:

- Having a clear rule of how many weeks in advance coursework deadlines/ timetabling can be changed, which is communicated to students and any changes made after these must only be in exceptional circumstance and an explanation provided to students
- Changes to labs and lab reports in the new curriculum to ensure deadlines and timings are manageable and representative of the marks available
- Having a handbook that can act as a single point of reference e.g. for coursework deadlines and is updated throughout the year if any changes are made
- Inspired by positive experience from Computing – digital system to organise timetabling assessments that provide live and up-to-date information

- Ensuring all key course-related information/ changes are communicated by email (could be replicated on e.g. Teams)
  - Inspired by positive experience from Chemistry – examiners chat before setting deadlines and aim to avoid multiple deadline days
- Inspired by other departments – calendar of key dates in the common room so everyone is aware of all deadlines and can be held accountable to them
- Inspired by other departments – switch lab reports to oral exams an hour or so after labs e.g. presentation with group/ list of questions

## 5. Clearer and Relevant Course Content

Some students were discontent with the course content available, and others felt that the course description could be more accurate for when they were applying.

Quotes from NSS comments:

*“Engineering section of course was far less prevalent than had hoped. Only able to do well in 3rd year project due to self-taught skills, hadn't been well prepared in class for it.”*

*“Too little engineering content.”*

*“The choices of business course to take aren't given to us. Should be more varied in terms of the course itself. Materials are basic.”*

*“Mostly prepares you for a scientific career (instead of engineering) which is fine but was not clear upon enrolment.”*

*“Courseworks were useless; I didn't learn much from them. Lack of real practical work, I couldn't learn much from the practical works we had.”*

Proposed solutions are:

- Clearer guidance in course brochures that the course is more science based than engineering based
- More engineering content in new curriculum, including practical engineering and workshops
- More flexibility in choice of business modules in new curriculum
- Suggestion from other departments – extra courses on offer not for credit e.g. in computing

## Department of Mathematics

Written by Nicolas Barykin Pankevich and Hugo Chu, in collaboration with Imperial College Union

After reading the positive and negative NSS comments for the department, we, the Academic and Wellbeing Dep Reps, have identified several key positive and negative themes. Let's start with the positives:

- Enthusiastic staff who are passionate about teaching and their module

*'Staff are passionate in teaching.'*

*'They can see the lecturers passion in teaching and they are very capable at making the content come across in an accessible manner for them'*

- Good start to year 1

*'A warm welcome at the start of Year 1 - despite a large amount of information being shared, it wasn't overwhelming.'*

- Many electives to choose from

*'Being able to choose all my modules myself has been a very positive experience as I'm now able to focus on subjects I find the most interesting.'*

*'The course lets you choose from a huge variety of modules in final years letting you specialise in the areas you find most interesting.'*

However, the department is currently going into the other direction, many incoming 4th Year students were disappointed that a large number of M3/4 courses were removed for next year (in particular in the Pure Section)

- Great pastoral care

*'The members of the department who are involved with the pastoral care of students are very approachable and always make time to see students who wish to talk something over.'*

*'The pastoral support from the department is really good.'*

- A lot of people find the course stimulating

*'Very challenging, very stimulating but ultimately incredibly rewarding when it goes well.'*

*'The course was stimulating and challenging.'*

Despite these positive comments, an overall satisfaction in the 4th quartile at national level means that it is essential to change how some things are done. These are our recommendations for what issues should be looked into:

## **1. Lack of group work**

### **Background**

Some students feel that the amount of group work throughout the degree should be greater.

### **Some quotes from students**

*'Would enjoy more group projects (I would make M1R a group project).'*

*'The lack of group projects in the modules on my course, so I did not have much chance to work with the other students.'*

### **Proposed solutions**

Midterm exams had a group component – continue this.

Doing M4R in pairs (for instance a student does the quantitative work whilst another one analyses the results), or offering some M1R projects that are done in pairs (although standardising individual vs pair work might be a bit tricky) could be a way to add more group work into the curriculum. Implementing more group coursework could also help deal with this issue.

Organising study groups for second and upper years would also help. Forming these kinds of groups is essential for next year due to remote teaching leading to a reduced interaction between students.

## **2. Some of the students feel that the workload was too high, and some that it was too low**

### **Background**

Some people want to learn more content because they are on top of their courses, whilst others feel that the amount of work they are expected to do is too overwhelming.

### **Some quotes from students**

*'I feel like it's been difficult to take advantage of non-academic opportunities because the course has been so consuming.'*

*'8 exams in May was an unsustainable burden for me, both in Year 1 and 2.'*

*'At times, I felt like more content could fit into the courses.'*

*'I think we can study at the present time or more than 4 modules.'*

### **Proposed solutions**

Allow students to take extra (Mathematics Department) courses for extra credit as it is done for Horizons courses. Considering the modules that add up to 60 credits offering the highest possible grade would also ease this issue. More advertisement on seminars and colloquia going on in the department.

More support for students who need it: forming student revision groups could potentially help with this if the department is not able to finance more support (student/rep led).

Hard to cut down on workload, but can focus on improving pastoral care (support) from both staff and older students/peer tutors

## **3. Lack of sense of community**

### **Background**

Some students feel excluded and not really part of the community.

### **Some quotes from students**

*'I don't think this is the fault of the college/department, but I personally didn't feel part of the Department of Mathematics. I don't know many people in the department, student, or staff, and I really don't feel like a sense of belonging to the course. I'm aware there have been events, there's a mum and dads thing that runs for first years, etc., but personally, despite these efforts, I don't feel part of a wider community.'*

*'Not much of a sense of community.'*

### **Proposed solutions**

Organise maths events that revolve around meeting new people – for instance a sort of speed dating event. More emphasis on mums and dads. Give a budget to mums and dads to spend on their children. More group activities both within and outside of the curriculum.

More budget for personal tutors.

Encouraging staff/student integration activities like Professor Buzzard's Lean Discord.

## **4. Lack of empathy from some staff members**

### **Background**

Some students feel that some lecturers are difficult to interact with, or at times that their personal tutor doesn't care about them.

### **Some quotes from students**

*'Some staff are not really pleasant to deal with. Do what they want to do without listening to students' opinions.'*

*'Occasionally, some lecturers seem to not want to do the teaching side and only focus on their research, so they do not put as much attention into their module and can be quite sloppy with it. However, by far many of the lecturers are very engaging and put lots of effort into the teaching, it's only occurred in a couple of modules.'*

### **Proposed solutions**

Further develop the training for personal tutors, with an emphasis on empathetic behaviour.

Involving student representatives when selecting new lecturers.

In the first few weeks, build relationship with PT by focusing on non-academic affairs (which raises the point of whether it would be wise to separate PTs for academic and pastoral).

## **5. Lack of funding despite high tuition fees**

### **Background**

Despite the lack of labs or any other practical components to the course, there's a lack of funding for a lot of things: for instance peer/personal tutorials or the number and amount of UROP funding available, most supervisors do not have their own funds contrary to other departments, MathSoc is sometimes struggling with funding... Considering that the whole degree only consists of lectures given by a small number of lecturers (8/9 lecturers for 270-300 students in year 1-2) to a large number of students (low staff/student ratio) and very few problem classes/tutorials, students do not understand the amount of tuition fees they pay.

### **Some quotes from students**

*'The tuition fees are too expensive, way too expensive for international students.'*

*'Over the range of subjects at university, more money is spent on other subjects than Mathematics, which is logical, as we do not need labs, etc. Makes you wonder if we could be charged less considering we barely use more than the computers & printers, or receive our share via trips or talks or something.'*

*'Could have learnt everything from this course by myself, without paying £36,000.'*

### **Proposed solutions**

More transparency on where the money is going and explanation of the cost of the degree.

## Department of Mechanical Engineering

Written by Margarida Santos, Dhabya Alfalasi and Isabela Lopez, in collaboration with Imperial College Union

The following recommendations were based on comments written by final year Mechanical Engineering students in the National Student Survey (NSS) and read by the 2020/21 Departmental Representatives.

Comparing this year's results with the previous, there has been an overall improvement of student satisfaction in the MechEng department. We are determined to continue this positive trend since there is always space for more improvement. Therefore, we have chosen the following recommendations in an attempt to positively tackle problems highlighted by students in the NSS. We hope that these goals will be achieved through collaborative work between staff and students representatives, all with the aim to further improve student experience in our department.

### 1. Managing Workload

Whilst acknowledging that this is a difficult course, which like most jobs has periods of high stress and heavy workloads, many students feel that sometimes this is not fully appreciated by staff. Most students feel that the constant levels of stress are detrimental to their university experience and their mental health. Frequent comments were made on the volume of coursework, often overwhelming the students, especially when deadlines are not spread out.

Some text outlining why this recommendation was chosen, listing some of the problems that the students mentioned in the NSS, quoting some numbers from the NSS scores (if applicable), any other background

*"It seems that the course is designed to heavily work students... this is counter-effective. Having to work too much and constantly stressed about it dampened the university experience, not to mention that the work imposed robbed off time to rest and fully participate in other activities."*

*"Except from a few, I can say most of the lecturers are grandiose academics who have unrealistically high expectations on their students."*

*"It can be tough when there are multiple deadlines, time pressure."*

*"Very polarised sleep schedules - often there is too much work and sometimes there is a lull. Perhaps the work could be split more evenly."*

*"A lot of pressure is put on the students. The atmosphere can lead to tension within the year and an increase in depression and anxiety. Throughout the course, I did not meet one person who had not suffered some sort of mental illness at some point. The course takes up nearly all of your time so there isn't any time to really get involved with societies."*

*"This course is very demanding, with a packed schedule and high amount of coursework and examinations. While it is doable and this forces people to allocate time efficiently and setting*

*priorities, there are moments where the course may be too demanding. This is where it is important to receive guidance from staff and other students."*

Balancing the workload and letting students know in advance the volume of work that they are expected to complete so they can plan themselves better. Extending lab reports deadlines from 7 to 10 days might also give some juggling room for students, alternatively, some lab reports can be done orally, which is less time consuming for students and staff. Furthermore, coursework can be added to the final subject grade, so a person still needs 40% in the final exam to pass, but if he or she scores well in lab reports that can raise the person's final grade in a subject – which might be helpful for internships.

*"Students need to be more aware of how much effort is required in a particular piece of work. Instead, they spend too much time working, have higher stress levels, have less time for sport, social lives, etc. Can be quite sad to watch people fall into depressive states/anxiety due to them working themselves unnecessarily hard. (Unnecessary = shown by the fact they get negligible increase in marks despite spending tens of hours more than average on a piece of work)."*

*"Would have been useful to try and teach people how to work proportionately. So many people waste hundreds of hours trying to get full marks and failing to."*

*"Would be useful to standardise the course in terms of materials provided i.e., have a set of notes, a set of lecture slides (different to notes) and a set of tutorials with X-Y number of questions. Peer review through lecturers might up their quality. If lecturers argue that having complete notes makes course too easy, then refer them to LRP, FYP, etc., which are unstructured. Modules shouldn't test a student's ability to write notes in a lecture but should test understanding of topics."*

## **2. More consistent and meaningful marking**

A lot of students commented on coursework being inconsistently marked. Marks are perceived as often being unfair and not representative of the effort put into the work. Many said that the feedback given was vague and not targeted or helpful. This was seen to be a significant problem for work such as design projects which are worth a significant portion of the degree.

*"Feedback - particularly on first/second year lab reports - was not very meaningful and took too long. I don't really think my reporting skills improved much as a result."*

*"The main area of improvement for the department is feedback especially in design courses. Design makes up a large part of the degree and feedback in this area is poor and not very transferable. Making the feedback more useful for improving later assignments would be helpful."*

The proposed solutions are:

- Moderate all submissions. Whilst this might make getting feedback take longer, supervisors could give students written feedback without a grade/percentage until the submission gets moderated. Student may prefer getting their grades later if that means they are less likely to be unfairly marked.
- Have the first and secondary marker discuss the graded work when grades given are more than 6% apart instead of the current 10%.
- Department should collect data about supervisors (i.e look at the grades supervisors issue historically to try and isolate whether a supervisor is being fair or just consistently too harsh/not harsh enough)
- Allow students to schedule meetings to discuss feedback – especially in design.

*“Too often, the mark a [DMT/FYP/design] group gets is very dependent on how kindly the supervisor marks as an oppose to the quality of the project. Furthermore, I don't believe having a secondary marker adds any fairness to the marking. If you get a harsh secondary marker, your grade gets pulled down and if you have a kind secondary marker, your grade gets pulled up. The only fair way is having the ??? mark all the final reports which have the highest contribution to the overall mark in the same way that a ??? would mark all the exams at the end of the year. It's the only fair way.”*

*“Unclear feedback on coursework most of the time.”*

### 3. More module options within the course

Some students expressed their dissatisfaction with only being allowed to do modules outside the department (excluding business) before fourth year. This was considered too restrictive, especially when there is a high demand in the workplace for graduates to have knowledge/skills in other areas such as computing etc.

*“[The course was] Too specialised. Would have liked the opportunity to explore other subject areas such as horizons, introduction of minors, taking courses with other departments in other years than just ME4. Lack of personal and career development.*

*“Would be nice to have more optional courses for third and fourth year to be able to better and further tailor the degree to one's interests. Would also be nice to have more computing, programming and electronics given the industry demand for such knowledge and related skills.”*

- Department could allow students to take horizons modules for credit before 3rd year like other departments in the college.
- Develop a minor scheme.
- Try to allow for specialisations other than nuclear.

*“More h-level courses for 4th year would also be good, given that you were advised to only take two m-levels.”*

*“Little time allowed for becoming a well-rounded person. Likely to end degree being able to do some engineering calculations and report writing but no support given to becoming an interesting, well-rounded person with other life experiences.”*

#### **4. Less inequality**

There were frequent comments about students being bullied by someone from a position of power. Discriminatory comments and little to no consequences to the were also mentioned

*“One senior lecturer would stop a tutorial to insult and make fun of me, making sure the whole class was watching and listening. This was in tutorial classes where we would ask questions on how to solve a particular question. When I would ask for help on a question, he/she would ridicule my intelligence and said he/she 'would be seeing me for resits in the autumn'. I asked the tutor to stop this, but it continued for several sessions until I stopped going to the tutorials all together because I knew this would happen again. I decided to seek help from another senior tutor, to which they inferred that this member of staff was above them and they had no authority to question them or say anything.”*

*“From my experience, Imperial has deep issues within its hierarchy were more powerful members of staff can behave how they want without consequence.”*

The proposed solutions are to:

- Speak out against unacceptable behaviour.
- Educate students AND staff.
- Don't rely on a one session workshop – must consistently perform 'top ups' of training and adjust them to the appropriate level.
- Have open conversations about these issues and how they affect students and staff, both in and out of Imperial.
- Hold staff accountable for bullying and encourage students to speak out

*“...within the department there are deep classism issues within the undergraduate recruitment office. Some of which have referred to people from less well-off background as 'less prepared' and 'less able to handle Imperial'. Recently, a government scheme to forcing university to interview people from this background, they simple said, 'well, we're still not going to make them an offer anyway'. Having come from a less well-off background myself, this is hurtful, immoral and creates a toxic pool of class snobbery amongst undergraduates.”*

*“...many flyers from the Imperial LGBT+ group have been defaced around department with discriminatory phrases against non-binary gender people. Sadly, this again adds to create single-minded pact of people with the same views and morals, reducing diversity and inclusivity within the department. Imperial may have diversity in terms of nationalities, but it severely lacks representation and diversity in wealth, sexuality, and gender. This can be such a hard place to fit in if you don't conform to the unrealistic social norms.”*

## 5. More support from the union

Some students expressed their disappointment in how the union functions and supports students. Some expressed that the recent problems with aspects such as the union and its food has had an impact on students' social lives. Other facilities across campus were also criticised for being consistently breaking/under repairs.

*"The College Students' Union is very ineffectively managed which makes the Union a dreadful place to spend time, which makes it difficult to maintain a social life and meet new people at the College. There are constantly problems with facilities across campus, such as lifts always broken and toilets always broken."*

*"Student Union is absolutely garbage when it comes to supporting academic pursuits... After repeated attempts to get help from the union (and many ignored emails) the thing [an opportunity that would have been really good for CV and experience] fell through."*

*Organize more events, such as a social distancing party at queen's lawn. Also, making sure the bar and nightclub have enough space and bartenders. The lines and overcrowding are discouraging when planning a night out."*

*"The College Students' Union is very ineffectively managed which makes the Union a dreadful place to spend time, which makes it difficult to maintain a social life and meet new people at the College. There are constantly problems with facilities across campus, such as lifts always broken and toilets always broken."*

*"[...] The Students' Union is underfunded and understaffed. Volunteering on student committees is not recognised by the department as beneficial."*

## Faculty of Medicine (BMB)

Written by Jai Chapman in collaboration with Imperial College Union

This report presents several recommendations following the National Student Survey (NSS) completed by students graduating in 2020. In total, there were 55 participants in the survey, representing a large number of the total year cohort (60). A meeting was held by the Imperial College Union to discuss NSS departmental recommendations on the 13th of August, and several common themes were identified through multiple departments. For BMB, three main areas have been identified through NSS comments as areas requiring the most improvement.

As this report is based on the first NSS data for BMB, no comparisons with previous years are available. Some key responses indicating significant areas for improvement are highlighted below. These include responses in which agreement from students was found to be below 50%:

Statement	% agreement from students
"The criteria used in marking have been clear in advance"	16.28
"Marking and assessment has been fair"	34.88
"Feedback on my work has been timely"	4.65
"I have received helpful comments on my work"	13.6
"I have received sufficient advice and guidance in relation to my course"	23.26
"Good advice was available when I needed to make study choices on my course"	30.23
"The course is well organised and running smoothly"	9.3
"Any changes in the course or teaching have been communicated effectively"	30.23
"Staff value students' views and opinions about the course"	39.53
"It is clear how students' feedback on the course has been acted on"	16.28

From this data, a number of areas are shown to have particularly low student satisfaction. It has been identified that these areas mainly relate to in course assessments, particularly timing and quality of feedback. A large number of students also expressed displeasure with the organisation of the course on a whole.

This was the first NSS response for BMB, meaning that the data likely misrepresents the current feeling of newer students to some degree, as many issues have likely been resolved or acknowledged and worked on since the first cohort of students began their studies. Nevertheless,

there are still several clear areas for improvement that can be tackled in the coming year. It would be beneficial for the student representation team, including myself, and the faculty to work together this year to address the main issues highlighted in this report.

Following are three main recommendations I have devised in order to tackle areas requiring significant improvement, based on a combination of the data presented above, and free text comments left by students completing the NSS. Each of these sections include some suggestions as to how these problems may be addressed in the coming year, based on the discussion held by the Imperial College Union, and my own opinion.

## **1. Review and Improve Communication Regarding Delays to Assessment Feedback**

This recommendation was chosen as a significant number of negative comments from students following the NSS involved delays in feedback for assessments. Students noted that they were frustrated with the lack of transparency regarding when delayed feedback would be released, and that frequent delays were often not met with appropriate explanations as to why the standard two-week deadline could not be met.

Quotes from students:

*“For late feedback, delays in marking and insufficient feedback excuses are always made and we have not been communicated properly as to why these issues keep occurring frequently.”*

*“Assessment feedback has been late every time, regardless of module, year or teacher. Feedback is not regularly communicated with students; we must always email the administrative team for updates.”*

*“Staff consistently late to provide feedback and grades to assessments.”*

### **Solutions**

Whilst delays to assessments are sometimes inevitable, it seems to be a very common issue for BMB, and so it is recommended that a review of feedback takes place to determine why delays are as common as they are throughout modules and years. It is currently very often that the college policy of a two-week window for assessment feedback is not met.

Additionally, a system may be implemented so that in the event of feedback being delayed, alongside a message to students explaining this there is also a firm new date set for when they can expect to receive feedback. It would be beneficial for students to receive more detailed explanations as to why assessment feedback is delayed, so students no longer feel that they must chase up administration themselves in the event of delays and have some degree of reassurance.

If delays are due to spacing of assessments / modules, then a rework of the timetables throughout all three years may be beneficial in order to incorporate more time for staff to mark assessments.

## 2. Review Assessment Feedback Quality and Criteria

This recommendation has been chosen as several students noted in NSS comments that they felt marking and feedback for coursework was inconsistent throughout the duration of their studies. Complaints about the quality of feedback were generally linked to a feeling that assessment marks were not always justified by the comments given with them, and that feedback tended to be too brief.

Furthermore, some students placed emphasis on feedback not being useful in terms of guiding students on how to improve on assessed skills for the future. In line with the first recommendation (regarding delays to feedback), most students were particularly displeased with low feedback quality when this was also paired with significant, unexplained delays.

Quotes from students:

*“No timely feedback and feedback comments have no details on how to improve further.”*

*“There were many instances of delayed or unhelpful feedback with regards to in-course assessments, with little or no warning as to the delay.”*

*“Feedback is rarely helpful as it is far too brief and it is also nearly always given back very late (sometimes months after the deadline)”*

*“Serious troubles with coursework (late instruction, delayed marking, little/no feedback). Knowledge examined in summative assessments not match with what is taught in the module.”*

### Solutions

Quality of feedback was a common topic throughout multiple departments following analysis of NSS comments, and several suggestions have been made that could also be incorporated into BMB. Therefore, it is recommended that the following are considered:

- A minimum word count for feedback, on an assessment-by-assessment basis:
  - Providing a minimum word limit for feedback may provide more satisfaction to students, as this would allow a bit more clarity for students in terms of what to expect when receiving grades and comments. This would also help to avoid cases in which students feel that their work has been marked unfairly compared to others.
- Preparing and providing a document to markers in each module that contains guidance towards establishing a solid set of expectations when providing feedback.
  - E.g. This could involve establishing a guideline for comments addressing both positive and negative points. Students would likely appreciate negative points to be coupled with more clear guidance on what they could have done to improve their grade, and how to tackle similar issues in the future.
  - It would be great if this year’s student reps could be directly involved in the development of this guidance document, as they will be able to communicate the

- thoughts of the student body in regards to where they feel improvement is necessary.
- In addition, guidelines could be set involving giving out equal amounts of both positive and negative feedback, to provide more structure. (e.g. 2 positive, 2 negative).
  - As part of this, each assessment could also be given a ‘feedback form’ of sorts, containing different categories that feedback should cover such as structure, understanding, language. This may be in a similar style to the rubric system that is currently used for a number of assessments and so may not apply to all assessments.
  - A general review of assessment feedback to place more emphasis on highlighting where students specifically missed marks / were generally weaker in assessments.
    - This would aid in giving students peace-of-mind regarding why they may have missed out on certain grades and could also provide better guidance as to where students may be able to improve.
    - In line with the NSS response, it may be beneficial to refresh all assessment marking criteria to improve clarity and ensure that students are aware of what is being asked of them for specific assessments.
    - It would be beneficial for student reps to also be involved in any assessment criteria review that takes place

### 3. Improve Communication with Students

A very common theme in NSS comments was that students felt a lack of adequate communication between course leads and students regarding important matters such as third year placements, feedback, improvement to the course, and general organisation of the course. A lack of transparency was quoted by several students and students expressed frustration at disorganisation, particularly regarding in the third year. There was a lack of confidence from students regarding financial and organisational details with AstraZeneca projects. In addition, the percentage agreement from students that it was “clear how their feedback was being acted upon” was very low for this year at just 16%.

Quotes from students:

*“There was significant disorganisation in third year. / There was lack of clarity on how our third year was going to be evaluated right up until we started the year as we were going to be doing new projects.”*

*“Generally, it is incredibly badly organised. / Feedback given by us students about the course is never acted upon, or if it is, it's far too late and essentially meaningless. Information about changes relating to our course is always very late. Course organisers are unsympathetic about issues relating to the COVID-19 pandemic, particularly their departmental safety net policy, where a large amount of work in third year (worth a huge amount of our degree) is not being covered by the safety net.”*

*“Transparency as to what is happening behind the scenes is non-existent. Mislead as to what placements would be available.”*

*"Immense amounts of chaos and miscommunication means that the course does not run smoothly, and most students are dissatisfied."*

*"Poor organisation since it is a new course at Imperial. / For students undertaking lab projects in [AstraZeneca], financial funding is a problem due to lack of transparency and contradicting stories from the course and the company."*

## **Solutions**

In order to improve communication throughout the course, one suggestion is that a bulletin from the FEO may be posted on a regular basis (once a term?) addressing issues highlighted by students, alongside proposed or currently ongoing changes to address these. This would allow students to feel more like their concerns are being addressed proactively.

In regards to the proposed bulletin, it could be beneficial for student reps to be involved, or even responsible for writing this bulletin after consulting with FEO once a term.

Regarding third year placements, changes have already been made since the first third-year cohort were assigned to theirs, so the main issues regarding timing for placements have been tackled. However, some issues are still present regarding confidence in projects at AstraZeneca. It is recommended that more detailed guidelines are published for second year students moving into third year regarding exactly what financial help will be available, in advance of project publication. This should also include what is expected of students in terms of living arrangements when undertaking projects in Cambridge. This is based off of NSS comments, but was also an issue this year for a number of second year students when choosing projects.

## Faculty of Medicine (MBBS)

Written by Varja Čučulović, Rahul Penumaka, Conor Wisentaner and Rachel Kwok, in collaboration with Imperial College Union.

As elected student academic officers, we have had the pleasure of analysing the NSS responses to identify positive and negative themes, for which we have come up with 4 sets of recommendations. These were discussed with Imperial College Union representatives, whom have helped with ensuring that the recommendations are adequately specific and achievable.

We were encouraged by positive NSS results, particularly in the 'Learning Opportunities' and 'Students' Union' categories. However, it is clear that there is still space for more improvement, for example in the 'Organisation and Management', 'Teaching' and 'Learning resources' categories. We are keen to collaborate closely with the faculty in order to further improve the student experience.

### 1. Increase communication and organised exam arrangements

Many students expressed disappointment with various organisational errors, especially concerning exam deadlines and results. Whilst they understand that human errors do occur, they are frustrated as they feel as though the faculty is not empathetic about the effects of their mistakes, and possibly about the rigidity of their assignment deadlines. Those who were frustrated listed some mistakes made by the faculty, which they felt were avoidable.

*"(The) allocation of our BSc choices inadvertently revealed the rank of all students against their respective peers, which caused much distress and upset."*

*"The deadlines imposed on student's written work are incredibly harsh and unforgiving. Contrastingly, Imperial seemed too often not stick to their deadlines for handing out examination results."*

*"The biggest debacle was our fifth PACEs results which were incorrectly sent to students - in this day and age I really don't expect such a huge Excel error."*

*"We were told we would be doing the exam on iPad's and when we got there none were charged, we had to wait 3 hours for them to charge."*

### Proposed solutions

There should be a calendar of important dates made available early on in the year, and every effort should be made to respect the pre-determined dates. Any changes should be signposted and explained in an empathic manner, with an understanding that moving results dates can be very anxiety-provoking.

In the event of big crises, such as the COVID-19 pandemic, the entirety of the calendar can of course be updated accordingly; however, this should be done with consideration of student needs, i.e. asking for student input and explaining the reasoning behind any rescheduling.

The dissemination of important information e.g. allocation of modules, releasing results, etc. can be tested on a smaller group of control students if possible - the ICSMSU academic officers can help with this.

## **2. Address discrepancies in the quality of clinical placements**

Many students commented on the discrepancies in clinical placements, with particular focus on the teaching offered and also the variety of specialty experienced. Generally, many felt as though there is little regulation of both the quality and quantity of teaching available at each site, and that the selection of placements may not cover basic medicine for all students. Despite these discrepancies, many students have noted positively that there is a good range of placements available.

*“Placements usefulness is highly variable. It is a lottery with no choice given to students.”*

*“Placement allocations do not seem to be logical as it is entirely possible to go through the entire course having not had a placement in key medical specialities such as respiratory, which would be useful.”*

*“This meant in third year, some students had to learn most of the content from books whilst others had actual clinical experience/practice. It is better that firms were standardised in 5th and 6th year. I think it would be better to split 3rd year firms into smaller chunks, so everyone gets some core and some postgraduate firm bases.”*

### **Proposed solutions**

There should be a system to track placements allocated to each student. A list of essential placements (such as respiratory) should be proposed and a minimum number of essential allocations to be covered should be determined.

A systemic approach for feedback on placements should be proposed. Placement providers should be assessed based on students' feedback and a cut-off minimum score for further cooperation determined. If a placement provider is receiving low results, further students should not be sent on that placement. The procedure of this feedback mechanism should be communicated effectively to students.

There should be an ongoing system for reporting concerns during the placements as well. Students should be encouraged to report any issues to their academic tutors/ site leads, who should raise any problems with staff responsible for the relevant placement.

Prior to each placement, each clinical site should confirm that consultant mentors are working during most of the placement (e.g. >70%) and that they are well placed to provide support (e.g. not clinic based for a hospital placement). Additional mentors (of any grade) can be introduced to provide pastoral support, especially on longer placements. Mid-placement reviews have been helpful.

There should be capacity and flexibility for students to switch placements if there are significant problems. This would be especially important for GP placements where students may not be

able to find another doctor/ward to learn from, and that concerns may be difficult to raise in a small clinic. This process should be well signposted and of course, reserved only for issues otherwise unsolvable.

In general, there should be greater transparency between faculty, clinical sites and students. It is important that students receive more support on placements and that any issues arising during placements can be addressed quickly to avoid students receiving improper/ insufficient learning opportunities.

### **3. Increase student engagement on college and faculty levels**

Some students reported a perceived gap in student engagement. Many respondents cited the quality of facilities as one of the most positive aspects of their experience; the selling of St Mary's Campus has therefore led to some students feeling as though their voices are not heard especially with larger decisions. This feeling also exists on a faculty level, where some students have reported insufficient engagement between faculty, e.g. heads of year, and the student body throughout the year, although it is worth noting that many students do feel that their feedback matters to the faculty.

*“By far the most emotive negative aspect has been the decision from the College to sell off the Medical School building at St Mary's campus. (...) The way Imperial College London has handled the situation is quite patronising. We were told out of the blue of the decision, it is not up to negotiation, they refuse to provide details of to whom the building will be sold to, they intend to still have students at St. Mary's Hospital, but there physically not any space for them anywhere else.”*

*“When large decisions are being considered e.g., selling off the St. Mary's student campus I feel as though the student body have a right to at least be included in those decisions rather than informed about them after the fact.”*

*“Sometimes, I feel Imperial doesn't listen to our views, particularly surrounding the selling off of one of our campuses and also in various changes to social spaces and social events throughout my time at Imperial.”*

*“The medical department in particular regularly ask for feedback and make sure we are able to voice our concerns.”*

'Student voice' was the second lowest scoring category in the NSS survey (% agree: 70.1 vs overall 82.0).

#### **Proposed solutions**

Seek out the opinions of students when decisions, such as those affecting the available facilities or the logistics of clinical placements, are made e.g. through townhall discussions with adequate notice, surveys, focus groups, or through the student union. Publish the results of these discussions – this can be done through the SU.

Release updates on proposed/ confirmed changes to infrastructure – perhaps through heads of years. As the money is put back into the ICSM community, increase transparency in where it is being put. Encourage reps to communicate about any cooperation with senior faculty to the year.

Heads of years to further improve general support to students.

Empower students to reach out to senior faculty when appropriate.

#### **4. Ensure exam feedback is consistent**

Many students raised issues about the quality and timing of the feedback they received on assignments. There is a perception that faculty can be disorganised. Several students called the quality of their feedback 'poor', 'brief' and 'not helpful'. Some students also commented on the lack of feedback for exams which makes it difficult to improve.

*“During our BSc year, written feedback from in-course assessments was generally quite poor. It hasn't really been consistent.*

*“Feedback on assessments is generally very brief and not very helpful.”*

*“Feedback for assignments and examinations is mixed. In some years, we just knew our overall scores then we would get a breakdown per topic on the level of our performance. In third year, we did not receive any actual comments on our OSCE performance just raw scores and rankings. Whereas in fifth year, we did have the chance to view written feedback with our tutors. During our BSc year, written feedback from in-course assessments was generally quite poor.”*

'Assessment and feedback' in the NSS survey received the lowest satisfaction score amongst all categories (% agree: 61.6 vs 82.0 overall); the results found that students were particularly dissatisfied with the following prompts:

- The criteria used in marking have been clear in advance
- Marking and assessment has been fair
- Feedback on my work has been timely.

#### **Proposed solutions**

Require examiners to provide a minimum word count when providing feedback on written assignments.

Remind examiners that copy-pasting feedback will not benefit student learning as much as individual feedback.

Provide examiners guidance on what feedback to provide. For example, they must provide one positive point, one negative point and how the student can improve

Consult with students on what the turnaround time for feedback should be. Release a calendar for results dates that everyone can fall back on and respect the dates set.

Consistently provide students with more detailed descriptions of their exam performance, for example, with a breakdown of results from each station in practical exams (OSPE, OSCE, PACES) and areas to revisit in written exams.

Potentially allow a time for students to communicate and ask the marker questions after receiving the results. If this isn't logistically possible for all students, perhaps students who received lower marks can be prioritised.

### **Positive themes & quotes**

A large proportion of responses described high satisfaction of the calibre of teaching, often noting the passion and enthusiasm in the core teaching faculty, and generally good clinical teaching at different placements.

*"It is clear that the teaching staff really enjoy teaching and are passionate about medical education."*

*"Some of the regular, experienced lecturers consistently deliver fantastic, useful, easily understandable teaching. Hospital placements generally very satisfying, with good opportunities to learn."*

*"The course has largely been engaging, and is taught by an enthusiastic core faculty who care a lot."*

*"The course instils in the students an incredibly detailed knowledge of the scientific basis of medicine whilst also receiving outstanding clinical teaching at our west London hospitals."*

The student union and various clubs and societies have provided valuable support to students

*"The medical Students' Union (ICSMSU) is fantastic. They create a real sense of community and you feel very supported throughout medical school."*

*"The Students' Union put on a massive range of events - both extracurricular, social and academic making for an enriching and fulfilling experience."*

*"Medical Students' Union is fantastic at building community and providing social, academic and welfare support."*

*"The student community at Imperial College London is absolutely superb. We have the largest collection of clubs and societies out of any UK medical school and this forms a core component of every student's experience."*

*"The university has a huge variety of clubs and societies to further enhance academic/personal/social/management skills which has been essential to my time here"*

Some students reported satisfaction with their personal tutors.

*"Very well organised and supportive personal tutor system."*

*"Great personal tutor, really felt on my side and supportive."*

The Faculty Education Office (FEO) is seen to be responsive and helpful

*"The FEO is a good port of call, usually whenever I email them about a query, I get an answer quite quickly. And even if they can't help me, they always direct me to the appropriate contact."*

*"FEO has been also always extremely helpful and rapid to reply whenever I had a problem."*

## Department of Physics

Written by Yuqing Wu and Anthea MacIntosh-LaRocque, in collaboration with Imperial College Union

This document was assembled by the Departmental Academic and Wellbeing Representatives (2020-2021). The recommendations are based on the comments provided by the graduating class of 2020 in the annual NSS survey and the ensuing discussion between departmental representatives from across the College.

The crucial need to make changes within the Department of Physics is evident from the trend of poor student satisfaction of graduates. However, as was noted by multiple respondents to this year's survey, a recent positive shift has been made on a departmental level, in many ways due to a greater emphasis placed on student feedback. Through continued collaboration between the staff and student representatives, we hope to solidify some of these changes and work towards improving the student experience.

### 1. Reduce Pressure and Workload for Students

This recommendation is based on one of the most widely stated issues cited in the NSS, and reflects a general consensus among students. Many students voiced concerns surrounding an intense pressure on students to complete unmanageable amounts of work. Some students put this down to the course structure being such that too much content was condensed into the first two years of the course. Other students felt that the deadlines were not spread across the terms, with many exams and deadlines grouped together, particularly towards the end of the Summer Term.

*"The workload after first year is borderline unmanageable"*

*"At times, it felt like 'active learning' was used as a smoke screen to allow for the fact that there was too much content in a course for it to be covered in the lectures."*

*"Workload is so great that I have found it difficult at times to maintain a social life. I have never been so stressed in my entire life."*

*"I don't know anyone who doesn't feel like they have to work on weekends and during holidays, not to achieve particularly good grades, but just to pass with a decent grade."*

*"I would rather have some exams in January and some in May/June so the pressure isn't all applied at once."*

Some students pointed out that particular components, such as laboratory, were especially stressful.

*"Third year lab is a joke. It has definitely been one of the most stressful experiences I've had. At 10 hours/week it takes up too much time..., but yet there isn't enough time left to do proper"*

*'independent investigation', because there are usually so many tasks to go through in the lab manual - people end up working overtime just to meet the very basic standard.'*

More care should be taken to balance deadlines across the academic year.

- Head of Years should be briefed and encouraged to balance assessment deadlines across the academic year when the timetable is being developed during the summer.
- An idea would be to consult with year reps or have the timetables approved by the Senior Tutor over the summer to ensure a balanced assessment calendar.
- Under the new syllabus change, many exams have been replaced by coursework. This resulted in clashes in deadlines during the academic year of 2019-2020, particularly when assessment briefings were late to be released, resulting in knock-on effects. Extra care is therefore required to ensure that coursework deadlines do not coincide.

Exams should take place both at after the Christmas holidays and in Summer to spread out the pressure of the exams.

- Such a move has been praised by many other departments for reducing stress near the end of term.
- Under the revised syllabus, first year exams were split between Spring and Summer Terms. Generally, students praised this decision and would like to see this practice continue in all years of the revised syllabus.

A review of the amount of coursework and content students are supposed to cover and complete during their time here at Imperial. This is especially relevant to labs, which students mentioned frequently in their responses.

- Some departments replaced some lab reports with a "lab oral" taking place an hour and a half after the end of the lab, in the form of a group presentation. This reduces the workload on students whilst ensuring students understand the lab holistically and developing group-working skills.

More support to aid students to manage this high pressure.

- Sometimes, the pressure students feel is due to poor time-management and prioritisation on the student's part. However, the Department can take steps to reduce the pressure.
- A departmental policy should be introduced dictating that all assessment briefings should include an "anticipated time-span" which indicated how long a student should expect to spend on a piece of work. This would enable students to allocate enough time for their work while simultaneously reducing the number of students spending too much time on coursework.

- Initially, this policy could be trialled on first year coursework and a follow-up survey carried out to determine whether this has been successful in its aim to improve prioritisation and time-management.
- The Department could arrange student talks from alumni or final year students on how to manage time while at university, as this can be very different than in sixth form.

#### Exam timetabling

- A timetable available on Blackboard detailing when exam timetables will be released, when feedback from coursework is due, and who is responsible for distributing the feedback.
- This is currently done by Materials in the form of their student handbook.

## 2. Improve Pastoral Care, and Support for Students in Difficult Situations

Many students felt there was an insufficient system for pastoral care in place. There is a general impression that wellbeing issues are not dealt with effectively, and systems such as “mental health first aiders” are not adequate. Furthermore, the mitigating circumstances policy places too high a burden of proof on students, who found it cumbersome to gain the required evidence for mitigation. Mitigation is slow to enact, and some self-evident situations, such as injuries, require documents which are difficult to obtain.

*“For a number of times, I found considerable resistance in attaining mitigation for things that seemed pretty open and shut. ... The effect of this is in the result of future hospitalisations and bereavements I chose not to even start the mitigation process as I felt that I couldn't afford to lose any additional time and didn't feel confident that I would get anything.”*

*“The way mental health is dealt with is also not great. Having to wait 6 to 8 weeks for an appointment only to be told you need to manage yourself better is not helpful at all.”*

There were also complaints on the personal tutor system.

*“Luck of the draw whether you get a good tutor and they won't let you change.”*

*“Not everyone I know has had a good personal tutor like me, which is unfair to them.”*

A redevelopment of the personal tutor system.

- NSS responses indicate that many students are not satisfied with the amount of contact with their personal tutor.
- Encourage quality contact between personal tutors and their tutees by providing financial incentive for the tutors. For example, the Faculty of Medicine pays tutors on an annual basis, and provides money for tutors to take tutees for coffee or a meal.
- A non-anonymous review (i.e. student identifies the tutor) of personal tutors to be carried out at the end of the academic year. Student fill in an online form to rate their

tutor, provide feedback, and can opt to change tutor. Students with negative experiences are invited in for a discussion with a member of staff. In the instances where a personal tutor is performing below standard, the personal tutor should be removed from their position (this could be for a variety of reasons, for example, frequent travel getting in the way of regular contact with students). In instances where there is simply a poor connection between tutor and tutee, the tutee should be allocated a different tutor. Such a system has been implemented in Chemistry. Due to the system, students are much more eager to seek support from their tutor, due to more positive experiences.

- Personal tutors should have mandatory training on mental health and issues affecting students from underrepresented groups.

#### Staff training

- Encourage or mandate staff in pastoral roles to shadow colleagues in other departments or institutions where student satisfaction is high.

#### External wellbeing advisor

- In all except two departments in Engineering, there is an external wellbeing advisor who comes in regularly. Students can book appointments with the advisor. This service is well used.
- This would decrease the work load on SLO and Disability Advisor.

#### Opt-in mitigating circumstances follow up

- The Department should add an opt-in for a follow-up by member of staff following the submission of mitigating circumstances form.

#### General support

- The calendar for the Physics Helpdesk should be advertised in advance. For example, circulated by email on a termly or monthly basis.

#### Careers support

- Arrange 'Meet the Researcher' events, where both graduates and undergraduates have a meet and greet.

### **3. Consistent Marking and Providing Detailed Feedback**

Students felt that the marks they received on their coursework, particularly for lab reports, were subjective and not reflective of the quality of the work they submitted. Students also felt that they did not receive adequate feedback on examinations and coursework.

*"Lab report marks felt entirely arbitrary, with such a large variation in marks awarded which never reflected the amount of effort I put into a given report."*

*“There is general consensus among students that marks are far more dependent on the marker and their biases than the work submitted, with each marker apparently following their own guidelines and frequently providing contradictory advice.”*

*“We were either given contradicting feedback... or not any feedback at all... Also, the marking has been extremely subjective (i.e., I got the same continuous assessment mark as someone who skipped labs just because my demonstrator was harsher) and some of feedback given by the markers was just straight up rude (i.e., how can a postdoctoral researcher*

*write in my report feedback stuff like 'it's obvious duh' or 'you can't write words I need a literature degree to understand').”*

*“The marking criteria are not clear and different markers can give completely different marks based on the same thing. Second marking of coursework was cut after first year and most of the feedback felt lazy, often being pedantic and deliberately picking on small points to justify a pre-conceived score.”*

*“There is no proper training for PhD students doing UG marking of lab reports, or demonstrating in general, which means the marking is sometimes very hit and miss. A lot of PhD students come from an entirely different background and a one hour presentation is not going to bring everyone's marking standards to the same level.”*

*“I got particularly frustrated when I would be deducted marks for not including things that I was previously told I did not need to include. Feedback in general was not always helpful. Again, I would get frustrated when I would be told 'that it would nice to include x, y, z' but there would be no indication of what I should remove in order to make room for x, y, z.”*

#### Trial blind double marking

- Trial double blind marking on each piece of coursework. If two markers disagree significantly, then a third person should look over the coursework.
- Double marking is already done by Faculty of Medicine.

#### Provide exemplar lab reports to first year students

- A previous student report that has received praise could be circulated.
- Chemical Engineering has been implementing more detailed mark schemes for reports.

#### Feedback “worksheet” for lab reports

- The marker is given a worksheet to fill in for each lab report. This ensures all relevant sections are covered.
- Feedback structured into sections, such as positive/negative, with a minimum word limit in each section.

Increased transparency in all stages of the decision-making process

- Students should be able to see all instructions given to markers ahead of the assessment.
- Make it clear students can contact the marker. Establish a system to flag that you don't have sufficient feedback. For example, when lab reports are given back, provide a line saying "If you are not satisfied with the quality of the marking, please contact XYZ."
- Have a feedback monitoring system, or person in charge of ensuring feedback arrives on time.

Better training for markers

- There have been complaints in the NSS of insufficient training for markers, leading to inconsistent marking.
- A possible solution is to provide sample reports to markers, indicating which aspects of the report to focus on when marking.

#### 4. Effective Response to Student Feedback

There is an overall impression that the Department as a whole is slow to respond when students relay feedback. Solutions take at least a term to be implemented, take effect for the next year's cohort, or are never implemented. The current rep system is limited in its ability to create change.

*"Our year has complained about many things and they have always been fixed in the following year instead of immediately."*

*"a lack of transparency about what the department does with our feedback, and what mechanisms (or lack thereof) are in place to ensure that feedback is acted upon"*

*"Often it seems like the first response to any suggestion is 'We can't do it because' while really it should be 'Let's see how we could make this work'. The department is incredibly defensive about their ways of doing things, even when they are the only one in college doing it that way."*

*"There is no sense of the department listening to the students' opinions. Even when the student reps try to voice our complaints, most of the time the department shuts them down and tells them there is no time/money so there is no real change."*

Improve the current system to increase the connection between students and the department.

- More opportunities for social interactions between students and staff, for example, post special lectures. Discuss such a possibility with the departmental society in advance. In-person tea and coffee events may be useful.

- Introduce board games in the common room, funded by the department. To assist decision-making, conduct a survey of students for what games to get.

Increased responsiveness of lecturers to student feedback

- In some departments, for example, Mechanical Engineering, lecturers are obliged to give feedback to all negative comments on SOLE. This is released in a “public” document, either by email, or Blackboard.

A change of mindset from ‘this can’t be done’ once an issue is raised, to ‘let’s see how to do this’.

- This overall impression has been encountered frequently while reading the NSS responses. Students feel that if they raise an issue, it takes a long time for it to be implemented.
- The Department needs to be more proactive in responses to student voice. When a change is first proposed, the Department should carefully consider methods to implement it before deciding to accept/reject it.
- This point is closely linked to other points in this set of Recommendations. By improving transparency and connections between students and the Department, students will increasingly appreciate the actions being taken.

## 5. Improved Learning Resources

Students felt the department did not provide them with adequate learning resources throughout the course of their degree. Many students felt there was not adequate examination preparation material. Some lecturers provide poor quality notes, or a lack of resources to help students. There is an impression that lecturers expect students to find their way through a problem instead of supporting students through it.

*“Departments similar to physics such as EEE have past papers mark schemes available for almost all departments.”*

*“Not having past paper answers is really frustrating.”*

Publish past paper solutions for all exams, as opposed to a select number of years.

- Other departments have found that providing more past papers, and solutions, have led to better preparation.