

Faculty of Science Education and Student Experience Newsletter

– December 2017

Updates from the APVC

Welcome to the first of what we intend to be termly Faculty Education and Student Experience Newsletters. The plan is to update on issues from the last term and flag up some more general teaching and learning issues.

The term started with some significant timetabling problems, and there is an on-going review at University level to come up with recommendations to improve the efficiency and effectiveness of the timetabling process for next year. A second review that is ongoing is around 'Organisational Effectiveness' as we move into the era of Campus Solutions, and that review will also be making its recommendations early in the New Year. As we switch to Campus Solutions later in the year there will inevitably be some teething troubles, and as with any changes in working practices, there will be some parts of the new system that we won't like. However, the system is coming in, and we need to make it work for us, so I would encourage colleagues to please accept that it is happening and try to work with the system and not against it.

A further thing that I think we should do as we move into 2018 is to switch some focus from local organisational issues to some of the national and international issues that are set to influence higher education and student experience over the coming years. The Teaching Excellence Framework (TEF) is with us, and whilst it is not certain how this is going to affect fees and income, it is clear that the main factors that will affect our rating in the future will be student retention, student satisfaction and employment outcomes. Already the Government are moving forward with the concept of subject level TEF, and as an Institution we have volunteered to take part in the pilot, though fortunately most subjects in Science (with the exception of some programmes in Biosciences) have not been selected for this. Currently, the metrics place the University firmly in the silver category, and whilst our current TEF gold ranking lasts for a couple more years, we need to work hard to ensure we maintain gold in the future. Apprenticeship degrees are also high on the Government agenda, as are 2-year degrees, new HE providers and the whole concept of value for money in HE. Many HE providers are moving at speed into offering new programmes to match these opportunities and likely growth areas in student numbers, and we need to think strategically as a Faculty about whether, when and how to embrace these new opportunities. Are the markets for all of our current UG and PGT programmes sustainable? Are there some programmes where the numbers are no longer viable? What are the potential growth areas and do we have the capacity and a strategy to exploit these? Can we work with international partners to establish new markets for our programmes and expertise? And as the competition increases, we need to be clear what the stand-out features of our programmes are – embedded research-led teaching, an international focus, both in terms of the nature of the research that feeds into our teaching, and in the opportunities we offer our students, employability opportunities in terms of embedded placements and professional skills training in our current provision, our teaching quality, the high standards of the degrees we award, and the passion and enthusiasm of our staff for their subjects and the desire to convey this to our students. The new regulatory framework of the so-called 'Office for Students' will also soon be with us, and who knows what challenges that will throw up, but one thing for sure is that finances will remain tight for the foreseeable future, so we need to be smart in the way we teach and assess, and work together, academics, support staff and students, for the best outcomes for us all.

Over the past term, I've had the pleasure of chairing the EEARs (Educational Enhancement and Assurance Reviews) in the Schools of Chemistry and Computer Science and it is clear from these (and from the review of Physics and Astronomy back in February), that there are many incredibly professional staff at all levels in the Faculty and outstanding things going on to enhance education and the student experience. All three Schools are showing innovation in their teaching methods and are working with their student bodies to build even stronger communities. And I have also seen SET and SEM scores and comments across the Faculty for this term, and it is clear that we have many inspirational teachers who are going the extra mile to provide an

outstanding education for our students. Recently, we held a workshop with our Faculty student reps and asked them what they thought made a great lecturer in science, and top of the list were enthusiasm and approachability of the staff member, the ability to spark enthusiasm in the subject, the recording of lectures and the use of interactive lectures with voting systems to help make large classes feel more personal and reassure them that they are on the right path. As a University, students are our *raison d'être*, and whilst there are many and increasingly varied goals for staff to deliver on, the one thing that will ensure our success in any teaching metrics is to remain committed to quality, professionalism, enthusiasm and working with our students.

Faculty Action Plan

You have hopefully seen the Faculty Action plan and the nine actions we have committed to in the section on Education and Student Life. As a reminder and to add some more context, these are:

1. Establish a small grants scheme for projects to enhance education and student experience.

The aim of this initiative has been to allocate some money to fund small projects in the Schools within the Faculty to assist in teaching related scholarly activity. In particular, we have given priority to projects that aim to work with students to enhance the student experience and to look for projects for which the outcomes may be translated to other Schools in the Faculty. Further details on the projects that have been funded are provided later in the Newsletter.

2. Analyse tariff for all courses and place in context of competitor courses. Review future plans for course portfolio.

This relates to the comments above that the HE landscape is changing, and we need to be strategic to ensure our programmes remain competitive and attractive to potential students.

3. Share best practice in teaching through joint events with the Faculty of Medicine & Health Sciences. Create online masterclasses from staff with expertise in different approaches to teaching.

As the demands on academics on R&T contracts have increased, some Schools have appointed a growing number of Teaching and Learning focussed colleagues. In some areas, these staff may be better placed in terms of expertise and workload to devote time to leading on innovations in teaching and learning. At Faculty level we are proposing to establish a network between these T&L colleagues in Science and their counterparts in the Faculty of Medicine and Health Sciences to establish joint initiatives in teaching enhancement. We feel that joining with this Faculty provides a good fit for both staff who teach on our healthcare professional type degrees to share best practice with colleagues in other healthcare disciplines and for our teachers in the natural science-related disciplines to share best practice with colleagues in the life sciences.

4. Annual newsletter on teaching highlights to be shared with staff and students

The Faculty action plan suggests an annual newsletter, but on reflection we have decided to do this on a termly basis, starting with this current issue.

5. Hold a Faculty workshop to ask course reps “what makes a great teacher at Nottingham?”

Our student course reps have a key role to play in working with staff to enhance the student experience, and we want to build on their expertise to understand more clearly what sorts of qualities they are looking for in us, and what sorts of teaching techniques and innovations they find most helpful for their learning. We recently held this workshop and are now working on the outcomes to enhance teaching, learning and student experience in the Faculty.

6. Work with students and student services to develop robust, reliable and consistent procedures across the Faculty for providing exam feedback.

Students are entitled to see their exam scripts following examinations, and to receive feedback from markers. However, it is not clear what the most effective and efficient way of providing this feedback is, and different Schools have adopted different approaches with varying degrees of effectiveness. We have been evaluating these approaches and discussing them with students and with Student Services to identify a process/processes that will work most effectively for our Schools, and these will be rolled out in the New Year.

7. Launch the next stage of the on-line marking pilot

Last year we ran some pilots in Chemistry, Physics and Astronomy and Maths on on-line marking of non-text based coursework. This year we are running an expanded pilot in the School of Physics and Astronomy for on-line marking of non-text based coursework using Surface Pro devices, following which the pilot will be evaluated to determine what further support, guidance and training needs to be put in place prior to completing the roll out of on-line marking for all coursework in the Faculty.

8. Work with Careers and Employability Services and students to share and expand best practice across the Faculty to enhance student career prospects and employability

As detailed above, employability is becoming an increasingly important metric for the TEF and we are working with CES to enhance industrial liaison, placement opportunities and career prospects for our students.

9. To increase undergraduate awareness in our research and the role of women in science through a series of research seminars by early career scientists. Ensure PhD students are welcome at these events

There is much internationally and nationally excellent research going on in our Faculty. However, often students from different Schools don't get to hear about all the exciting, cross-cutting research we are engaged in. In order to provide students with an opportunity to hear about some of the research across the Faculty we are proposing to hold a series of research seminars across the course of a week in February to which all students across the Faculty (UG, PGT and PGR) will be invited. These will be talks by Research Fellows/Postdoctoral Scientists/senior PhD students highlighting both what their research is all about, and the journey they have followed to get to this point in their career. In addition, and to highlight the importance of women in science, the aim is that at least half of the presentations will be from female scientists in the Faculty. Following evaluation of the first series of talks in February, we hope to run similar events each semester in the future.

Funded Projects from Small Grants Scheme

Earlier this term we put out a call for applications for the Faculty of Science Education and Student Experience Small Grants scheme for projects up to a value of £1000. We received 16 applications for funding which came to a total value of just under £13K. I'm pleased to be able to say that Kevin has agreed to fund up to £5K's worth in the first instance, and we have been able to fund the following nine projects. You will be able to read about the outcomes of these projects in future issues of this newsletter.

Physics and Astronomy:

Getting students to love first year labs – the aim of this project is to improve the engagement, knowledge and skills of students in experimental work, particularly in the first year for students making the transition from A-level.

Mathematics:

E-learning resource creation using the Adapt Framework tools – the aim is to set up a server hosting the e-learning software creation tool called Adapt, which can then be used by colleagues to create more interactive learning resources for staff and students.

Maths game-playing arcade – the aim will be to run weekly sessions for undergraduate students to engage with the mathematics of game playing. This will provide opportunities for students to interact and learn about interesting aspects of maths not generally covered in the degree.

Psychology

Biological Psychology game - this project will examine students' learning and their views of using a game to aid learning of biological psychology. It will also allow the School to examine how effective games are in helping students to learn and remember more about biological psychology.

Communication of feedback - this project will extend work that has been done previously in the School about feedback. The outcomes will be to enhance our understanding of the students' views on feedback, and help to inform the ways in which we can reduce the barriers that students face when using feedback.

School of Psychology Ethos and Student Charter - a key aim of this project is to enhance the culture of support and mutual respect, through gaining a more in-depth understanding of student and staff expectations of each other and their academic community.

Biosciences

Interactive Learning Activity (Workshops) – these workshops are aimed at understanding the Agricultural Market in practice through simulation. This project involves the development and implementation of interactive workshops for first year BSc students in Agricultural Sciences.

Development of a Career Planning Resource for MSc Students and Improving the Postgraduate Taught Student Experience – these two combined projects are aimed at enhancing the experience and opportunities for MSc students in the School of Biosciences and developing approaches that will be of value to other MSc programmes in the Faculty.

Updates from the Schools

Psychology

Over the summer, the School's communal spaces underwent a refurbishment in order to provide students with a more pleasant environment in which to study and socialise. Some of the furniture is equipped with USB and power sockets so that devices can be charged. Students have been pleased with the improvements.

This year, the School is running a series of Community Events. This term, Masters students have attended a pizza and catch up session and final year PhD students have attended a pizza and writing session. Students and staff have enjoyed tea and cake and a relaxation station. We have been looking forward to a charity events like our bake sale and Christmas jumper day.

Our developments in assessment and feedback are still ongoing. The marking rubrics were edited over summer to take into account feedback from staff and students. We are currently analysing data to better understand how staff mark work. First-year students attended a workshop about understanding marking and reported that this helped them to feel less nervous about the essay assessments and more confident about writing good essays.

Mathematical Sciences

In mathematics, our Course Reps have run another pre-LCF surgery, which was very successful in raising important issues with particular modules, which were discussed in the LCF committee meeting. Also, 22 of our students from all year-groups took part in Round 1 of a national mathematics competition organised by Imperial College London. The competition was conducted locally, facilitated by students in the Mathematics Society. We continue to have good engagement between students and staff in the School through the strong network of Course and Education Reps, along with having a dedicated Student Experience Officer.

Chemistry

The academic year started with 'welcome back' briefings from each of the four Heads of Year. Each returning year group was invited to attend an informal session during week 1 that involved their respective Head of Year giving a preview of the year to come, and to discuss any significant developments or changes planned for 2017-18.

In October, we held our Chemistry Careers Evening, which involves former students returning to share their experiences of life beyond graduation. This evening gives students exposure to a wide range of career opportunities, and also gives them access to possible future employers.

In response to NSS feedback, The School of Chemistry has made answer guides available for all 2015-16 and 2016-17 exam papers. These are now delivered via the School's 'Assessment and Feedback' Moodle page, which hosts exam papers, answer guides, SEM results and staff feedback.

The School of Chemistry has agreed to capture all of its lecture-based modules (lecture room/technology allowing), and this is proving popular with students.

As a School, we continue to develop our processes for the online submission of coursework. For the 2017-18 academic year, we have further developed the direct submission of coursework via Moodle (rather than Turnitin), which better allows us to mark non-text based work (chemical schemes/figures/graphs/plots etc.) more effectively, whilst improving the feedback provided to students.

Pharmacy

Student experience activities that have taken place over the last few months in Pharmacy, include those to support future careers, such as:

(a) 'Pre-registration' careers support to Year 3 & 4 students - all Pharmacy students are required to complete 1 year pre-registration training to register in the UK as pharmacists. Most complete this as a 1 year employment after graduating from a 4 year MPharm degree. This year, for the first time, most of the pre-registration employment positions within England have been allocated through a national recruitment system called 'Oriel'. Thus to support our students as much as possible whilst they have experienced the roll out of this national system we have held special training/advice events, drop-in sessions, a dedicated moodle 'careers' page, and additional tutorials e.g. on the national 'results' day in November. These activities have been led by Mr Gautam Paul (Advanced Pharmacy Practitioner (Education and Training)) and Lauren Naylor-Morrell (Pharmacy Placements and Pre-Registration Manager).

(b) 'Industrial Pharmacy Careers & Networking Events' - In response MPharm student requests for more information about potential careers in Industrial Pharmacy, Dr Maria Marlow and Dr Cristina Matteis organised an evening "Insights into pharmaceutical careers: why work in the pharmaceutical industry?" session. The evening included talks from Peter Timmins (Bristol Myers Squibb), Paul Giffen (Glaxo Smith Kline), Carolyn Jovanovic (Walgreens Boots Alliance) and a recent MPharm graduate with experience in the Pharmaceutical Industry. The session was attended by more than 200 undergraduate students from the School, and additional future events have been planned.