

Meeting 2/13

15 May 2013

For general publication

**Present:** Mr Chris Read (in the chair), Miss Melinda Ashcroft (from, Prof Melissa Brown, Miss Paige Erpf, Mr James Hill, Ms Mariska Marnane, Assoc Prof Joe Rothnagel, Mr Mark Starkey (minutes), Miss Rose Trappes, Mr Vincent Were, Mr Alan Zhang.

**ACTION**

**Apology:** Mr Alex Booy (had a class).

**Minutes:** Minutes of the meeting held 27 March 2013, having been circulated, were taken as read and were confirmed.

**1. Business Arising out of the minutes:**

**1.1 SCMB T-Shirt:**

Members noted that an email had been sent to all SCMB students in April mentioning the outcomes of the meetings of the Student Consultative Committees (Coursework and Research respectively) and the availability of the \$11 T-shirt. Only a small number of new sales had followed. Promotion continues via the Podium video screen, posters and point-of-sale display at the School counter. Each of this year's SCMB academic prize winners were given a shirt at the awards ceremony 16 May. (Subsequent to the meeting, a member of the Research Students Consultative Committee suggested that the shirts be offered for sale at the SCMB Research Students Symposium in November, subsidised in full or in part by external sponsorship normally attracted. This will be considered at the next RSCC meeting.)

A member asked if Biotechnology polo shirts were still available and Mark Starkey undertook to check. (The shirts remain available at \$22 each. Students can obtain a payment slip from the SCMB office and pay at the UQ Student Centre, before bringing their receipt back to SCMB where the shirts are available.)

**1.2 Molecular Design Contest:**

Mark Starkey reported that no entries had been received for the contest, which was due to close 22 June. He had approached Melinda Ashcroft early May regarding the Molecular Biotechnology Student Club preparing a poster and slide which the School would print/display to encourage entries. Melinda responded that she would have content for Mark shortly.

Melinda

Melissa Brown suggested that coordinators of the relevant BIOC courses could mention the competition in lectures and put up the afore-mentioned slide.

Mark

Rose Trappes mentioned that she had recently covered Pymol in BIOC3000 but suggested that students might feel that their designs would not be competitive or they simply lacked time to do designs at the busy end of the semester.

Members agreed to extend the deadline for entries to the end of the inter-semester break (21 July) and that an email be sent to eligible students about this, reiterating the features of the competition, including prizes.

Mark

**1.3 Graduate Mentor Program – get-together of project students and potential supervisors:**

Further to the suggestion made at Meeting 1-13 that a get-together of postgraduate coursework students and potential project supervisors might be held to facilitate connections, Mark Starkey had consulted with the Directors of the Biotechnology, Molecular Biology and Bioinformatics programs.

The unanimous response of the directors had been that part of the learning experience at postgraduate coursework level is to source a project and that the student mentoring program run by the Molecular Biotechnology Students Club is a peer-to-peer aid in this process. The Directors had said that students seeking further assistance be advised (perhaps via the Club) that attendance at the annual Honours information session held in August (now also held in May) is an option for gathering more information and meeting potential supervisors.

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**1. Business Arising out of the minutes: (cont'd)**

MBiotech representative Vincent Were said that he had narrowed his field of interest for a project from the content of lectures earlier in the program and then sought out a supervisor.

**1.4 BIOC3000 Practical Classes:**

Rose Trappes reported that the two most recent practicals had been better than the earlier ones, in which the tasks had been relatively menial. Currently students were analysing an unknown protein which was more interesting and used a broader range of skills.

Rose suggested that the style of assessment could be improved – at third level, more-detailed report writing seemed suitable.

Melissa Brown responded that the School was seeking to make a new staff appointment to improve the practicals and thanked Rose and her fellow students for their input.

**1.5 Coursework students vacation research scholarships and work experience opportunities**

**1.5.1 Vacation scholarships**

Members were informed that summer (and now winter) vacation scholarships are provided by UQ to encourage current UQ students and students of other universities to get a research experience during the vacations. UQ and the Faculty of Science co-fund a number of the science scholarships and UQ and SCMB normally fund a number of additional scholarships each round. The summer scholarships are worth \$300 per week for eight weeks. The winter grant is \$1,000 for a minimum of 4 weeks work, funded fully by the UQ Office of Undergraduate Education. Schools are invited to nominate projects and a list of projects is made available to students. Selection of students is on academic merit and personal statement. Members noted the application form for last year's summer program, included in their meeting papers.

The scholarships are promoted by the UQ Office of Undergraduate Education in the following ways:

- At O-Week and Open Day.
- The OUE website.
- Social media – OUE and UQ Facebook pages.
- Posters and video screen slides distributed to Faculties and Schools.
- *UQ News* stories.
- Emails to Faculties, previous participants and staff contacts, with request to pass on to their networks.

The Faculty of Science promotes the summer scholarships via (a) year-round information on its scholarships webpage at [science.uq.edu.au/scholarships](http://science.uq.edu.au/scholarships) and (b) via a bulk email at the relevant time of the year to all undergraduate students with a cumulative GPA of 5.0 or better.

SCMB has information about the scholarships as part of a suite of information about undergraduate research opportunities, which has, at the suggestion of a previous CSCC, been assembled as a web-page ([scmb.uq.edu.au/undergraduate-research](http://scmb.uq.edu.au/undergraduate-research)) and a slide on the Chemistry Podium video screen.

Joe Rothnagel reported that the School had offered 33 projects in the last summer scheme but only four projects had been offered this year in the new winter scheme. Melissa Brown reported that two of the four projects were with her lab and that she had received a lot of overseas applications. She would encourage staff to offer more projects at an upcoming staff meeting.

Melissa

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**1. Business Arising out of the minutes: (cont'd)**

**1.5.2 Work experience opportunities**

SCMB did not have dedicated resources to offer the arrangement of work experience opportunities for its students in general. One issue was that local industry hosts were seen to be limited in number. However the following activity does take place:

- Eligible students enrolled in BIOT3007 – Biotechnology Industry Placement/Internship and BIOT8010 – Professional Practice in Biotechnology are assisted in finding a placement.
- Students who enrol in SCIE3260/1 – Introduction to Research in Chemistry, Biochemistry & Microbiology may be permitted to complete the course in an industry setting if the student can source an industry partner. The course is available summer semester to make this option more practical for students.
- On its Employment and Careers Advice webpage ([www.scmb.uq.edu.au/employment-careers-advice](http://www.scmb.uq.edu.au/employment-careers-advice)), SCMB mentions work experience options for students under the Future Scientists program and the AusBiotech student association.
- Honours students who seek to undertake their project in industry are favourably considered for the award of one of SCMB's \$2,000 Honours scholarships (10 available each year) and may receive additional funding.

Melissa Brown asked student members for their view of industry projects in Honours. One member reported that when he had enquired of a potential Honours supervisor about the benefits of an industry project, the staff member had responded that a traditional UQ lab project was preferred because of the time management challenge that a student could face with an industry project. Melissa said that the staff member was being overly cautious.

**1.6 Biotechnology Students Careers Event and CHEM1010 Careers Event**

Mark Starkey reported that planning for the Biotech seminar style event in August was proceeding and Vito Ferro had advised that he would contact the Molecular Biotechnology Students Club for participation/input, once the event is locked in. Melinda Ashcroft welcomed this development.

The suggestion at Meeting 1-13 that a national biotechnology conference being held in Brisbane in November 2013 might provide an opportunity for the School to approach employers had been passed on to Vito, who had advised that he was aware of the conference, being on the Queensland branch committee of AusBiotech. He had added that the 2014 conference would be on the Gold Coast. He had said that he was working on engaging AusBiotech (membership of which includes employers) for the August event.

Presuming that the Biotech event was a success, Melissa Brown asked student members if they would be interested in similar events for other disciplines. Members responded in the affirmative.

Members also noted that Prof Mary Garson, coordinator of CHEM1010, had recently run a careers information lecture featuring two UQ Chemistry graduates now working in industry. Although the session had been at 8.00am in the morning, more than 50 students had attended. The session had been recorded and was available on Blackboard.

**1.7 Honours Information Session**

Following a suggestion at Meeting 1-13 that information about Honours be made available to students earlier, an information session had been held at lunchtime on 8 May on the Chemistry Podium. It had attracted around 150 students and had featured a current Honours student undertaking her project in industry. Chris Read said that he had attended the session and had found it useful.

Melissa

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## 2. School Review:

Members who participated in a 29 April meeting of students with the committee reviewing SCMB were thanked for their involvement.

The review committee had orally reported its draft commendations and recommendations to the staff of the School on 3 May. The committee would submit its full report to the Academic Board by 17 May and then the School would be asked for a response.

One of the anticipated recommendations is that the School continue to investigate and implement modes of teaching delivery that move away from the didactic lecture. Student members felt that having recordings of large classes was appropriate and that small group teaching would be a useful add-on. Paige Erpf mentioned that the style of interaction is key – some teaching delivery was boring (eg, reading from slides), whereas interactive classes were more engaging. Rose Trappes and others agreed. Even a lecturer writing things on a board meant that students making notes could keep up while listening to what was being said and responding to questions, whereas the pace of some slide presentations pressured students into concentrating just on their note-taking in order to keep up.

Another anticipated recommendation was that the School facilitate development of a student club to enhance the cohort experience. Members said that Science students can feel isolated. Melinda Ashcroft said that the Molecular Biotechnology Club had been established in 2012 initially for MBiotech, MMolBiol and MBioinf students, but now had a couple of undergraduate members. It was essentially open to all biological sciences students, said Melinda. It is run mostly as a closed Facebook group, but has face-to-face social events once or twice a year.

Due to time pressures in the meeting, members were invited to forward suggestions to Mark Starkey. Mark undertook to look at what other Schools do and would talk to Melinda.

## 3. Accuracy of practical class manuals – BIOC2000 and CHEM2054:

Second/third year BBiotech representative, Mariska Marnane, reported that the accuracy of prac manuals had been brought to her attention by students.

Mariska reported that there are several errors and changes in both CHEM2054 and BIOC2000 (mostly the Bioinformatics Prac) Lab manuals. She said it was understandable that the Bioinformatics section of the BIOC2000 lab manual may be difficult to keep updated as protein databases are constantly changing.

The lab manual and results sheets for CHEM2054 had unclear instructions/explanations for some experiments and there had been minor changes to the methods, etc. Students are advised of method changes before they start their practicals and are offered help to understand background theory/results sheets, but it would be better if the lab manuals and results sheets were clearly written.

BIOC2000 course coordinator, Dr Susan Rowland, had responded that the BINF part of the BIOC2000 manual is difficult to keep exactly updated.

She had added, “specifically, when the students do their first search for a particular record they are given an indication of which page they should go to on the output to find their record of interest. They do not need this information to find their record, it is just helpful. Since thousands of new records are deposited in the databases each week, this indicated page may change from year to year. The remainder of the items should not change too much, but updates in the databases and home page ‘looks’ for some of the screen shots may mean that there are slight variations in the way the sites students access look to them.”

In Susan’s opinion it is impossible to exert complete quality control over the BINF CAL experience in the written manual, because it is quite possible that the pages will change from the time of manual printing to the time the students do the CAL. “To deal with this BIOC2000 provides an on-call tutor for the CAL (online), a Facebook site where students can support one another, and Susan also posts amendments to the manual during the week of the CAL workshop so that students have the most up-to-date information related to the site”, said Susan.

All  
members,  
Mark.

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**3. Accuracy of practical class manuals – BIOC2000 and CHEM2054: (cont'd)**

Paige Erpf said that she felt that there was not really an issue with the administration of the BINF component of BIOC2000, but Mariska said that some students have difficulty with informatics.

The CHEM2054 course coordinators, Dr Jack Clegg and Dr Gwen Lawrie had responded as follows:

“We are co-coordinating CHEM2054 for the first time and have essentially let the experimental instructions stand from previous years so that we could appraise them and the students' related learning from the processes in progress. Indeed we have found a number of issues as the current instructions are very dated, procedures have been amended due to resources and some experiments are perhaps too complex for their purpose; we have also encouraged tutors to advise where they noted errors.

“This has been done transparently in real time which means that as soon as something has been noted that may affect the outcome of the experiment, a correction has been made immediately to maximise learning. To this end, signs with corrections are placed above benches and tutors give instructions for missing information (particularly where an experiment has been adapted from a higher level course but a procedure is new to second level student). Most students have been aware that we are doing this with intent to make changes for 2014 and have appreciated that in-situ amendments are aimed to improve their experience – of course we intend to revise the instructions, so the 2013 iteration is a transition year and a unique situation.

“In CHEM2054 we attempt to encourage students to move away from following a ‘recipe’ in a laboratory manual towards thinking and acting for themselves as independent scientists and experimental practitioners, which they will be required to do in higher levels of study and in the workplace. Noting what is said above, having complex instructions, can to some extent, encourage deeper learning and student engagement as they are required to turn to the literature, their tutors or their peers for additional guidance in understanding terms and techniques.”

Members felt that no further action was necessary.

**4. CHEM1010 quiz marking:**

First year BBiotech representative, James Hill, reported that there has been some discussion on the CHEM1010 Facebook page regarding the marking of online quizzes. It seemed to be frustrating some students. James personally did not think it needed to be changed, but suggested that maybe more clarification is required.

A response was sought from CHEM1010 course coordinators, Prof Mary Garson and Dr Lawrence Lo, who took advice from lecturer-in-charge of first year practical classes, Dr Philip Sharpe. Dr Sharpe had advised as follows:

“I have looked at the Facebook discussion. I don't think there is much to complain about.

“The fact that questions in the computer quizzes are marked on an all-or-nothing basis is explained in the ECP and also in the Quiz information sheet emailed to each student at the start of semester and available on Blackboard, so it is incorrect to say that they were not informed of this. I believe the rationale for this is that it is meant to be very similar to how the MCQs are marked in their exams.

“There were fewer questions in the Organic Part 1 pool this semester than normal, as the questions on substitution and elimination were removed, as the material had been covered in lectures, but not in PASS, giving 121 questions in the pool. As the questions are randomly selected from the pool, it is possible for students to get several similar questions. There is possibly a need to increase the number of different questions in the Organic pool.

“For the pre-lab questions, some questions are marked on a partial mark basis. Others are on an all-or-nothing basis. Those are typically the questions where I think that if a student truly understands the theory involved then they will get all of the parts of the question correct.

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**4. CHEM1010 quiz marking: (cont'd)**

“The quizzes are timed because of the evidence that students were not taking the quizzes seriously when given several weeks to complete and some indications of cheating, such as the widespread posting of questions on Yahoo answers. The advantage of offering timed quizzes is that it gives students better feedback on how they are likely to do in an exam situation. The median score for Quiz 2 in CHEM1010 was 7, so it would not appear that students need more time to complete the quizzes. Extra time has been arranged for students with SADPs in place who have requested it. The CHEM1010 exam allows 2.24 minutes per multiple choice question. The quizzes allow 6 minutes.”

Professor Garson had added that some better information sharing with students on why the ‘all-or-nothing’ approach is taken with marks for some questions might be warranted, but feels that otherwise the process works well.

Members felt that there was not a problem with the way the quizzes were being marked, but agreed with Professor Garson that the marking rationale might be better explained to students. Mark Starkey would pass this on.

Mark

**5. Third year Chemistry workload:**

Third year Chemistry representative, Chris Read, said that those students taking four CHEM3XXX courses were feeling overloaded, especially towards the end of semester when assessment items were crowded. He suggested that some practicals were irrelevant and that in CHEM3001 for example, four practical reports could be reduced to three each worth more marks.

Chris also suggested that better coordination of assessment due dates could be looked at. Melissa Brown responded that the School’s Teaching & Learning Committee should look at how to coordinate assessment for key cohorts of students. Joe Rothnagel would ask Chemistry Chief Examiner, Mark Riley, to check the course profiles to ensure no assessment due dates were in conflict with the University’s Assessment Rules.

Joe

Paige Erpf added that BIOC2000 had three assessment items due in Week 13. The assignments could not be started early in the semester as the relevant content had not been covered.

**6. Next meeting:**

A meeting would be held early in second semester. Mark would advise members of the date and venue once the availability of members for second semester had been ascertained.

Mark

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