Present: Professor Ross McAree (in the Chair), Professor Andrej Atrens, Associate Professor Vaughan Clarkson, Ms Miranda Mariette, Professor Richard Morgan, Dr Terry Maybury, Associate Professor Mingxing Zhang. Mrs Lamb.

Apologies: Dr Matthew Cleary, Dr Mehmet Kizil, Associate Professor Lydia Kavanagh, Professor David Mee, Associate Professor Carl Reidsema, Associate Professor Martin Veidt.

Welcome: Dr Terry Maybury was welcomed to the Committee.

Minutes: The minutes of the meeting held on 15 June 2011, having been previously circulated, were taken as read and confirmed.

Items in progress (15 June 2011)

The Division of Mining Engineering: review the elective course offerings in the BE (Mining) with the view to rationalising electives to reduce teaching loads.

Business arising out of the minutes

The following items were actioned from the meeting on 15 June –

The following items were referred to the Board of Studies in Engineering

- The dual major “Mining and Geotechnical Engineering” would be introduced into the Bachelor of Engineering from Semester 1, 2012; and
- The new course, MINE4128 – Coal Mine Strata Control, would be offered to students in the BE (Mining) as an elective from 2013 and as a compulsory Year 4, Semester 1 course in the BE (Mining and Geotechnical Engineering) from Semester 1 2013.

The following subcommittees were established

- Graduate Attributes Subcommittee: Andrej Atrens, Martin Veidt, Terry Maybury, Mehmet Kizil.
- Assessment Subcommittee: Mingxing Zhang, Matt Cleary, Richard Morgan, Mehmet Kizil.
- SECaT Review Subcommittee: Carl Reidsema, Ross McAree.

Teaching and Learning Grants – EAIT

Academic staff had been advised that the deadline for submission for EAIT Faculty grant applications was 1 October 2011 to the Head of School.

UQ Teaching Fellowship Scheme

The deadline for applications for UQ Teaching Fellowships was 30 September.

2. Changes to Courses and Programs

2a. Advice to First Year BE students (2012)

Members noted advice that had been prepared by the Director, First Year Engineering, and which would be provided to incoming BE Year 1 students, regarding enrolment requirements in first year compulsory and elective courses in 2012 for each engineering plan.

2b. Change of semester of offer for MATE7001 (2013)

Members endorsed the change of semester of offer for MATE7001- *Environmental Performance of Materials* from Semester 2 to Semester 1 effective from Semester 1 2013. This accommodated the School of Chemical Engineering’s plan to offer the BE/ME program to Year 4 students in 2012. The study plans for Chemical and Material Engineering required the course MATE7001 - *Environmental Performance of Materials* to be offered in Semester 1. The course had previously offered in Semester 1 and was changed to Semester 2 2012 to accommodate the SSP program for the course coordinator in 2012. The request was supported the Head of Division of Materials Engineering.
2. Changes to Courses and Programs (cont’d)

2c. Addition of prerequisite for AERO3000 – Flight Mechanics & Avionics

Members noted that the Head of School had approved executively for MATH2000 – Calculus and Linear Algebra II to be added as an additional recommended prerequisite to AERO3000 – Flight Mechanics & Avionics. The request had been made by the School of Information Technology and Electrical Engineering and the School’s course coordinator of AERO3000, Professor Russell Boyce. The addition of MATH2000 as a recommended prerequisite to AERO3000 would flag to students that the mathematics course should be taken prior to enrolment in AERO3000. This followed on from a student complaint where the student claimed to have been given poor advice regarding the order in which to enrol in the two courses and also finalised a request to add this prerequisite that did not reach the Teaching and Learning Committee in 2010. The Head of School of Mechanical and Mining Engineering approved this request executively to ensure that the University’s Handbook contained the correct information prior to the annual extract for publication.

Members agreed that the course coordinator should be asked if any other prerequisites should be added to the course.

2d. Change to BE (Mechanical and Materials)

Members endorsed the change to the BE (Mechanical and Materials) course list from Semester 1 2012 to accommodate the deletion of the course CHEE3305 – Biomaterials in Medicine from Semester 1 2012.

2e. Cancellation of ENGG4101/4102

Members endorsed changes to the BE Mechanical and BE (Mechanical and Materials) lists to take effect from Semester 1 2012 to accommodate the deletion of ENGG4101 – Systems Engineering & Design Management and ENGG4102 – Advanced Product Design Methods from Semester 1 2012. The changes to the course lists would be as follows:

**Mechanical Engineering**

**Year 4**

and at least #4 from -

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGG4011</td>
<td>6</td>
<td>Professional Engineering Project</td>
</tr>
<tr>
<td>ENGG4101</td>
<td>2</td>
<td>Systems Engineering &amp; Design Management</td>
</tr>
<tr>
<td>ENGG4102</td>
<td>2</td>
<td>Advanced Product Design Methods</td>
</tr>
<tr>
<td>MECH4500</td>
<td>4</td>
<td>Engineering Thesis [2]</td>
</tr>
<tr>
<td>MECH4501</td>
<td>4</td>
<td>Engineering Thesis [2]</td>
</tr>
<tr>
<td>MECH4552</td>
<td>4</td>
<td>Major Design Project [4]</td>
</tr>
</tbody>
</table>

**Mechanical and Materials:**

**Year 4 - Thesis/Design Requirements**

#4 from:

Semester 1 or 2

**Semester 1**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGG4101</td>
<td>2</td>
<td>Systems Engineering &amp; Design Management</td>
</tr>
</tbody>
</table>

**Semester 2**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGG4102</td>
<td>2</td>
<td>Advanced Product Design Methods</td>
</tr>
</tbody>
</table>
3. Semester 1 2011 SECaT Results

3a. Overall scores

Members discussed SECaT results from courses offered through the School in Semester 1 2011. The average overall rating for courses was 3.95 (out of 5). There was an overall 45% student response rate to the survey. It was noted that there had been an improvement on the average score over the past three semesters (refer to table below).

<table>
<thead>
<tr>
<th>Semester</th>
<th>Average (maximum of 5)</th>
<th>Response rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1 2010</td>
<td>3.74</td>
<td>51</td>
</tr>
<tr>
<td>Semester 2 2010</td>
<td>3.90</td>
<td>38</td>
</tr>
<tr>
<td>Semester 1 2011</td>
<td>3.95</td>
<td>45</td>
</tr>
</tbody>
</table>

3b. Question 6 – Feedback on Assessment

Of the 23 courses offered in Semester 1 in both years, there had been improvement in 18 courses while there had been a lower score in 5 courses. However, there was an increase in the number of courses rated below 3.75. While this was disappointing, it was pleasing to note high scores obtained by some of the newer staff in the School.

Members also noted that while the average response rate on Question 6 (I had helpful feedback on how I was going in the course) had increased from 3.35 to 3.47 in Semester 1 courses, the average response remained below the University’s threshold. It was also noted that some courses in particular had high scores for that question and members agreed it was worth exploring the reasons for this. One member suggested that more direct involvement by the lecturers (MECH3600) might have contributed to higher scores and it was also suggested that a tight turnaround in the release of marks for assessment (e.g. within a week) could have contributed to a high score in another course.

During discussion, members agreed that the lower scores could result from: not giving timely feedback, not making it clear what form feedback would take and/or higher expectations on the part of the students. The possibility of developing a School or faculty-wide ‘charter’ relating to feedback was discussed; this charter could be linked from the course profile. Alternatively, course coordinators could include information about course specific feedback mechanisms in the course profile; this might help manage the students’ expectations.

Another suggestion was to explore the development of a survey for students to enable the School to obtain feedback from the students on what they consider when attributing a mark to Question 6. This would require approval as the University recently approved a policy on student surveys.

It was also noted that the Head of School had included provision in the School’s Teaching and Learning budget to provide ‘lead tutors’ in large classes (>150 enrolments). One role of the lead tutor would be to monitor the course’s Blackboard discussion site which might also help the provision of feedback and increase engagement with students.

Members agreed that the SECaT Review Subcommittee should consider this information as part of their deliberations.

4. School Teaching Awards (2011)

Each year the School called for nominations for teaching awards in the categories of “Excellence in Teaching” and “Citation for Outstanding Contributions to Student Learning”. Winners in the School were automatically forwarded to the Faculty for the Faculty awards.

This year, two staff nominated for “Excellence in Teaching Awards”. Members considered the nominations and agreed that both applicants had prepared well documented cases and were worthy of awards. There were no nominations submitted for a “Citation for Outstanding Contributions to Student Learning”. Accordingly, members agreed to approve two nominations for an “Excellence in Teaching Award”.

A- KL*
4. School Teaching Awards (2011) (cont’d)

   It was resolved –
   • that both Dr Vince Wheatley and Dr Saiied Aminossadati receive School awards for “Excellence in Teaching; and
   • that both be invited to apply to the Faculty for consideration for a Faculty Award.

   It was further resolved to recommend –
   • that the Faculty be asked to consider presenting the School awards during Teaching and Learning Week.

5. ALTC Awards for Teaching Excellence

   The Australian Learning and Teaching Council presented its last ever awards in August 2011 to truly outstanding individuals who had made a lasting impression on the quality of Australian higher education. This year the Director of First Year Engineering, Associate Professor Lydia Kavanagh, won a $25,000 ALTC award for Teaching Excellence which was presented during a ceremony at the Sydney Opera House in August. Members noted Lydia’s significant impact on the undergraduate engineering program through the development of the curriculum, the creative development of new teaching pedagogies, innovative approaches to assessment and the introduction of real multidisciplinary courses.

   Since 2003, UQ engineering had won 10 national teaching awards:
   • 1 x Prime Ministers award for university teacher of the year (Ian Cameron – 2003).
   • 3 x awards for teaching excellence (Ian Cameron 2003, Peter Sutton 2007, Lydia Kavanagh 2011).
   • 2 x awards for programs that enhance learning (Project Centred Curriculum in Chemical Engineering 2005, School of Mechanical & Mining Engineering - Mining Education Australia 2010).

   It was resolved –
   • that formal congratulations be extended to Associate Professor Kavanagh from the Committee.

6. Operational Plan

   At the meeting of 6 April 2011, members had endorsed the “Learning” section of the School’s Operational Plan (2011 – 2013). Progress toward meeting the goals of the plan had been prepared for consideration by members. The Learning plan assisted the School to implement its goals and was also a good document to lead the School into the BE Accreditation in 2012 as well as the School review in 2013.

   Goal 1 (effectively implement the new 5 year BE/ME program)

   Progress toward the implementation of Goal 1 was on track. Changes to Year 1 of the BE would be introduced in 2012 with incremental changes to the School’s plans due to be phased in during 2012-2014.

   Goal 2 (renew accreditation for the BE plans)

   The accreditation visit was scheduled for early September 2012 and the Faculty has established a steering committee to guide the preparation for the accreditation documentation.
6. Operational Plan (cont’d)

Goal 3 (attain the UQ threshold on all course evaluations)

The School’s SECaT Review Subcommittee had been established to review the SECaT and CEQ outcomes and to make recommendations on how to improve outcomes in these instruments. The next release of the School Based Performance Framework (SBPF) was scheduled for November 2011 and progress toward this goal would be known at that time. School teaching awards were now a recurring item in the School’s Teaching and Learning Budget.

Goal 4 (improve opportunities to interact with students)

There was some progress made toward this goal. The School’s annual discipline lunch was again a success. Another initiative was the first time ‘Laboratory Open Day which was run by Materials Engineering. The Head of School planned to do this on a school wide basis in 2012 and planning on this event would begin shortly. It was noted that there would be some logistics involved in a school wide event and more discussion would occur over the next few months. Members agreed that providing students with ‘cohort’ experiences, particularly of a social nature, might be a very effective way to improve interactions while the students were at UQ and also to improve interactions with alumni. Another positive outcome might be increased RHD enrolments. Staff:Student Liaison meetings continued to be held regularly in each Division. Other ideas included a “Student Societies Council” and asking RHD students to write about their overseas experiences at conferences for inclusion on the School’s web site as well as inviting industry to interact with students in an informal setting.

Goal 5 (increase the proportion of students who study overseas) and Goal 6 (increase the diversity of overseas students into coursework programs)

Members noted that the School planned to establish an International Development Group and their terms of reference would assist to implement these goals.

Goal 7 (improve the undergraduate practical laboratory experience)

Members noted that industry funding was obtained to develop the new HVAC laboratory and additional funding was expected to develop the mechatronics laboratories. It was agreed that a subcommittee of the Teaching and Learning Committee should be established to assist the School to identify other practical laboratory improvements, to also identify funding sources and to encourage staff to make applications for relevant funding. Members noted that there would be at least one application for Faculty strategic funding to enhance teaching.

Goal 8 (review postgraduate coursework awards)

University policy required regular review of postgraduate coursework awards. The Mineral Resources suite of postgraduate awards was currently under review and the other postgraduate awards offered through the School were scheduled for review in 2012.

Goal 9 (enhance the student experience)

There were a number of strategies to implement this goal. Members noted that the School had prepared helpful guidelines on the “Role of the Academic Advisor” and the “Role of the Course Coordinator”. Other guidelines had been prepared to assist RHD students and supervisors and these had also been well received.

The School made good use of the University’s ResTeach scheme which enabled research only staff to bring their expertise into the classroom and it was agreed that this scheme benefitted the students and also assisted staff with their workload. However, the School did not have an effective induction and mentoring plan for these staff. It was agreed that there should be an annual induction/workshop for ResTeachers which might be structured in a similar manner to the tutor training sessions but directed at these more senior staff. A set of guidelines could also be developed.
6. **Operational Plan (cont’d)**

**Goal 10 (involve industry and other experts in the School’s teaching programs)**

The School made effective use of adjunct staff and guest lecturers from industry and this information was being collated as part of the accreditation exercise. There were plans to extend the CEED program into all engineering specialisations within the School.

**Goal 11 (implement the University’s new misconduct policy)**

The new policy “Academic Integrity and Misconduct” was approved by Senate on 25 July 2011. An implementation plan was being prepared.

**Operational Plan 2012 – 2014**

Members noted the current Operational Plan (2011-2013) would be revised with the Committee considering changes to the Learning Plan at its next meeting.

7. **Examination Booklets**

The University currently used 6-page (+ cover) and a 14-page (+ cover) examination booklets. Examinations Section reported a growing trend over recent semesters for multiple answer booklets for examinations, with separate answer booklets used for each section or question. The University understood that multiple booklets allowed for more timely marking of papers in the short time frame given to finalise grades, particularly when multiple examiners were involved.

However, given this trend, cost factors, and possible wastage, the University planned to review the size of the answer booklets; for example, perhaps a 6-page and a 10-page option might be more suitable.

The School’s administrative team had recommended that 10 page examination books be made available as anecdotal evidence suggested that a number of staff require more than 6 pages but less than 14.

It was **resolved to recommend** –

- that multiple examination booklets be available when multiple examiners were required to mark examination questions; and
- that the School’s administration team ensure examiners select the most appropriate sized booklet for use in examinations.

8. **BE Accreditation – TLC Responsibilities**

The next accreditation visit by Engineers Australia was scheduled for early September 2012 and the Executive Dean established a Steering Committee to guide the preparation of the submission to the accrediting team. The Steering Committee was chaired by Professor David Mee and included a representative from the other three engineering schools as well as the Associate Dean (Academic). The respective school managers and the FEO also attended the meetings (Secretary: Kim Lamb). The Steering Committee prepared a timeframe for the completion of relevant sections of the accreditation submission.

Members reviewed the draft response from the School on progress toward the implementation of recommendations from the 2007 and 2009 visits and were asked to provide any comments to the Secretary before 4 October 2011. The Graduate Attributes Subcommittee was currently reviewing the graduate attributes for the School’s courses.

9. **Student Integrity and Misconduct - Change to University policy**

On 25 July 2011, the University introduced the “Student Integrity and Misconduct” policy to regulate the processes and articulate the overarching principles to manage student misconduct. The previous methods had been enshrined in statute and University Statue No 4 - Student Misconduct was repealed accordingly on 31 August 2011.
9. Student Integrity and Misconduct - Change to University policy (cont’d)

The new policy applied to all students (as did the previous statute). Key features of the new policy included –

- The appointment of an “Academic Integrity Officer”. The Head of School has agreed that this role was best assumed by the Chair of the Teaching and Learning Committee (Dr Mehmet Kizil).
- A standard classification of misconduct.
- Introduction of ‘levels’ of misconduct which helped to determine who the decision maker should be.
- Introduction of additional decision makers (e.g. Dean of Graduate School).
- Ability for the Head of School to give a written warning.
- Ability for the Academic Integrity Officer to provide counselling for a first time case of ‘inadvertent and unintentional’ academic misconduct.
- Appeal hearings for cases heard by the Head of School is now the Executive Dean (was the Disciplinary Board).

Academic misconduct was defined as conduct by a student that –

- Hindered the pursuit of academic excellence and includes cheating, collusion and plagiarism;
- Sought to gain for him/herself or any other person, any academic advantage or advancement through the improper use of University facilities, information or the intellectual property of others; or
- Constituted research misconduct.

The School of Mechanical and Mining Engineering upheld the University’s requirement that matters of student misconduct be dealt with in accordance with University policy. The following principles applied –

- Disciplinary procedures would be fair and just and consistent with the requirements of procedural fairness;
- Penalties imposed for misconduct would be appropriate and proportionate;
- Decision making would be delegated to the appropriate level of responsibility within the University; and
- The initial focus of decision making would be based on whether there was evidence of misconduct, with judgements of intentionality to be taken into account in determining any penalty that might be applied.

Procedurally, teaching staff should continue to refer suspected misconduct to the School Manager who would obtain the administrative information required for the Academic Integrity Officer’s review and ensure compliance with all required timeframes set out under the policy. In general, the Head of School would continue cases for ‘first offenders’ – the maximum penalty which can be applied by the Head of School continued to be zero marks for that piece of assessment.

Members noted the new policy and recommended that the details be circulated to all staff and RHD students via the School’s newsletter.

11. BE Year 1 Discipline Lunch

In 2009, as an initiative of the Director, First Year Engineering, Schools were asked to organise ‘discipline lunches’ for first year engineering students to assist them with making an informed choice of their engineering specialisation. In 2010, the Discipline Lunch was held in mid-September in the First Year Learning Centre. It had been agreed to invite current fourth year students (or recent graduates) to give a 3-5 minute talk on their experiences in the engineering specialisations offered through the School: Mechanical, Mechanical and Aerospace, Mechanical and Materials, Mechatronics, Mining. Staff and other students would be invited to speak individually with students and answer questions. This was repeated in 2011 and the event was again well attended. Approximately 160 students attended the School’s session and the 80 pizzas ordered were consumed in short order.

It was noted that students were interested in the new BE/ME program, elective choices, employment opportunities, and salary outcomes.
12. Most Effective Teacher Nominations

Each semester, the Faculty invited students who received a Dean’s Commendation for High Achievement (GPA of 6.00 or higher in a semester) to nominate a staff member who they believed was the most effective teacher in that semester. Members reviewed outcomes from Semester 2 2010 and Semester 1 2011 and noted that a number of the School’s best lecturers had received nominations and agreed that all should be congratulated on their efforts.