Present: Professor Ross McAree (in the Chair), Professor Andrej Atrens, Ms Krysia Choros, Professor David Cliff, Dr Michael Kearney, A/Professor Mehmet Kizil, Associate Professor Paul Meehan, Professor David Mee, Associate Professor Carl Reidsema, Dr Vince Wheatley, Ms Phil Yorke-Barber, Professor Mingxing Zhang, Mrs Kim Lamb, Ms Kylie Pettit, Ms Jessica Shelley.

Apologies: Ms Yonna Cowan, Associate Professor Lydia Kavanagh, Mr Doug Malcolm.

Welcome: Dr Wheatley was welcomed to the Committee.

Minutes: The minutes of the meeting held on 23 October 2015, having been previously circulated, were taken as read and confirmed.

Business arising out of the minutes

The following items were actioned from the meeting on 11 August 2015 and submitted to the Board of Studies in Engineering –
- Changes to courses and programs

The following items were actioned from the meeting on 11 August 2015
- Teaching and learning roles
- Timeline to implement the realigned BE (Hons) and BE (Hons)/ME
- Examination policies – dissemination of information

The following items from the meeting on 11 August 2015 were in progress –
- Review of literature on the use of MCQ in examinations.
- Learning section of the School’s Operational plan (to be updated to align with the revised Faculty plan.

1. Changes to Courses and Programs
a. Changes to Course offerings

Members noted executive approval was granted for the following changes to courses to take effect from Semester 1, 2016.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Change requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGG7241</td>
<td>Engineering Project 4A</td>
<td>Change of course coordinator</td>
</tr>
<tr>
<td>ENGG7281</td>
<td>Engineering Project 8A</td>
<td>Change of course coordinator</td>
</tr>
<tr>
<td>ENGG7602</td>
<td>Advanced Engineering Laboratory Techniques</td>
<td>Change of course description</td>
</tr>
<tr>
<td>MATE7605</td>
<td>Special Topics in Materials Engineering</td>
<td>Unschedule</td>
</tr>
<tr>
<td>MECH2305</td>
<td>Introduction to Engineering Design and Manufacturing</td>
<td>Change to contact hours 2L 2I 1W to 3L 2I 1W</td>
</tr>
<tr>
<td>MECH3400</td>
<td>Thermodynamics &amp; Heat Transfer</td>
<td>Change to contact hours 3L2T&lt;2P&lt;2I to 3L1T&lt;2P&lt;2I</td>
</tr>
<tr>
<td>MECH7900</td>
<td>Special Topics in Mechanical Engineering</td>
<td>Unschedule</td>
</tr>
<tr>
<td>METR3100</td>
<td>Sensors &amp; Actuators</td>
<td>Change to course description</td>
</tr>
<tr>
<td>METR7603</td>
<td>Special Topics in Mechatronic Engineering</td>
<td>Unschedule</td>
</tr>
<tr>
<td>MINE3121</td>
<td>Mining Geomechanics</td>
<td>Change of course description</td>
</tr>
<tr>
<td>MINE4122</td>
<td>Mining Research Project I</td>
<td>Change of course coordinator</td>
</tr>
<tr>
<td>MINE4123</td>
<td>Mining Research Project II</td>
<td>Change of course coordinator Change of course prerequisite to list MINE4122</td>
</tr>
<tr>
<td>MINE7009</td>
<td>Thesis</td>
<td>Change of course coordinator</td>
</tr>
<tr>
<td>MINE7010</td>
<td>Thesis</td>
<td>Change of course coordinator</td>
</tr>
<tr>
<td>MINE7029</td>
<td>Thesis</td>
<td>Change of course coordinator</td>
</tr>
<tr>
<td>MINE7041</td>
<td>Mine Occupational Health &amp; Safety Management</td>
<td>Change of course coordinator</td>
</tr>
<tr>
<td>MINE7053</td>
<td>Sustainable Development in the Minerals Industry Context</td>
<td>Addition of flexible delivery mode Change to course description Change to course coordinator</td>
</tr>
<tr>
<td>MINE7061</td>
<td>Sustainable Development in the Minerals Industry – Tools and Integration</td>
<td>Correct error to show as external only Change of course coordinator</td>
</tr>
</tbody>
</table>
1. Changes to Courses and Programs (cont’d)
   a. Rule changes: Responsible Resource Development Suite of Postgraduate Coursework Awards

   The Sustainable Minerals Institute requested that the enrolment requirements for the Graduate Certificate, Graduate Diploma, and Master of Responsible Resource Development be amended to enable a wider range of qualified students to enter the program as the current rules are unnecessarily restrictive. The matter has been discussed with the Associate Dean (Academic) and the changes suggested to the rules included his feedback.

   It was recommended that -

   the proposed rule changes to the Responsible Resource Development Suite of Postgraduate Coursework Awards be approved to take effect from Semester 2, 2016.

2. Teaching Awards 2015: winners

   Staff in the School received teaching awards in 2015. These were:

   Dr Saiied Aminossadati received a University citation for “Outstanding contribution to student learning”.

   There were two Faculty Teaching Award winners from the School:

   - The ENGG1100 Mining Project Team (Saiied Aminossadati, Micah Nehring, Edward Hay, Warren Seib, Mehmet Kizil)
   - Anand Veeraragavan

   A Faculty Teaching Excellence commendation was also given to David Gildfind, School of Mechanical and Mining Engineering.

   The Faculty has set up a working party to review the Faculty awards.

   It was resolved that award winners be congratulated.

3. Student Misconduct

   In 2015, the Head of School heard 75 cases of academic misconduct – 42 were found guilty and 16 not guilty. A further 8 were formally warned/counselled and 6 had no case to answer (3 cases were pending a hearing by the Faculty).

   The data below is for cases heard in 2010-2014

   - 2014: 73 investigations – 31 guilty, 16 not guilty, 28 counselled/warned
   - 2013: 22 investigations – 10 guilty, 6 not guilty, 6 formally warned
   - 2012: 71 investigations – 51 guilty, 15 not guilty, formally 14 warned, 1 no further action
   - 2011: 85 investigations – 62 guilty, 16 not guilty, 7 formally warned.
   - 2010: 57 investigations - 41 students guilty, 16 not guilty or formally warned.

   Most instances of misconduct in the School occurred when a student handed in a piece of assessment that was meant to be done individually but was identical to or very similar to the assessment of another student or students. It was noted that the line between collusion and collaboration was not always clear to students. A number of the not guilty cases were students who provided their work to other students and the Head of School has generally erred in the side of caution in these cases.

   The Head of School said that it was important that staff refer any cases of suspected misconduct to the School Manager who would ensure that University policy is followed. Penalties cannot be administered at the course level; suspected misconduct needed to be handled in accordance with University policy. The Head of School also reminded members that it was important for all staff to uphold principles of academic integrity. A proforma might be developed to include information that might frame the allegation.

   Members noted that the Head of School generally heard cases of misconduct for “first offenders with subsequent cases referred to the Executive Dean. More serious cases were referred directly to the Executive Dean.
3. **Student Misconduct (cont’d)**

**Educating students on principles of academic integrity**

It was suggested that the following information be provided to students as part of instructions provided for assessment. This information was sent to students enrolled in plans administered by the School in about week 3 of each semester. However, it was important for teaching staff to reinforce this message –

- If you are ever not sure of what is allowed, please get guidance from the lecturer or the School office. As a rule of thumb:
  - *If the assignment coversheet has room for your signature only, the work is to be done individually. Where group work is allowed, all students in a group sign one coversheet.*
  - Refer to the course profile to see if your work can be done in a group.
- Engineering students are often encouraged to discuss their work with each other. If you are doing an individual assignment, have these discussions and then go off by yourself to complete the assignment.
- Do not give another student your work to look at or hand in for you. Many of the students who received a warning did this and found to their surprise that the work had been copied.
- Do not copy another student’s work even if they offer it to you or if it is on a social media site.
- Manage your time well. Sometimes you are better off not submitting the work and getting a zero than copying someone’s work and getting a misconduct record and a significant penalty.
- Value your signature. Read what is on the assignment coversheet before you sign it.
- Reference all sources including help received from the teaching staff and/or other students.
- If you are unsure how to correctly acknowledge assistance provided by someone, and how to indicate your approach to some work was based on discussions with other students, please ask your lecturer or tutor.

**University policy and tutorials**

The UQ policy and procedures used to manage student misconduct was found in PPL 3.60.04 - *Student Integrity and Misconduct* [http://ppl.app.uq.edu.au/content/3.60.04-student-integrity-and-misconduct](http://ppl.app.uq.edu.au/content/3.60.04-student-integrity-and-misconduct).

The University has developed an on line Academic Integrity tutorial which explains why academic integrity was a core value of UQ and why it should matter to UQ students. The tutorial was compulsory for all UQ students and a link to the tutorial website was displayed when a student logged into mySI-net. The tutorial takes about 30 minutes and covered topics relevant topics such as auto- or self-plagiarism, collusion and when to reference sources.

4. **Errors in Examination Papers**

Each semester, the University’s Examinations Section submitted a report on examination “errors” to the University’s Assessment Subcommittee (a subcommittee of the University’s Teaching and Learning Committee.

In Semester 2 2015, there were a total of 209 issues (“errors”) relating to the 896 central examinations/papers across the University.

Of the 896 central examinations/papers held in Semester 2 2015, there were a total of 209 issues across the University. The School had 15 issues identified. Of these, two or three might have been able to have been picked up by administrative staff.

The goal should be zero errors in examination papers and each layer of checking should result in fewer errors being identified; this should enable an error free paper to be submitted. Technical errors should be picked up by the examiner and/or the checker. These types of errors increased in Semester 2 2015.
4. **Errors in Examination Papers** (cont’d)

   It was suggested that the examination checker or a content expert attempt the examination, provide solutions, and in the case of casual teaching staff, that they be remunerated. Another idea was for the course coordinator to provide solutions to the examination checker. Issues with examination security needed to be identified if other staff attempted the examination.

   It was resolved that –

   - the cost of agreed to paying a pool of casual demonstrators (non-undergraduate) to attempt examinations be investigated for implementation in Semester 1 2016; and
   - that the course coordinator provide worked solutions to the examination checker and Chief Examiner.

5. **SECaT Results – Semester 2 2015**

   The SECaT survey instrument was introduced on a University wide basis in Semester 1 2010. Each semester (with the exception of thesis courses) all courses offered in that semester are required to be surveyed.

   There was a spread of outcomes from SECaT results across the School. The Chair indicated there was a possibility that some operating funds might be distributed to schools on the basis of SECaT results and it was likely that SECaT would remain the main indicator of teaching quality. The University recently commissioned one of its institutes (ISSR) to review whether student ‘groups’ responses biased outcomes. For example, did students who performed well in the course give higher scores, did students in certain grade bands do the surveys, or was a low response rate invalid? It was noted that students interpreted the eight SECaT questions very literally. Further work was being done and a formal report would be prepared.

   The student representative stated that students were more likely to complete the survey if they were encouraged to do so by the teaching staff and if they had a computer with them at the time. Some members thought that additional, and constructive comments were provided with the online system as students might take more time to provide written feedback. The results to question 6 (provision of feedback) continued to be low, particularly in larger classes.

6. **Report from the Iconic Experiences Subcommittee**

   The Chair of the School’s Teaching and Learning Committee consulted the Faculty’s Associate Dean (Academic) who recommended that the School provide students with an “iconic experience” that they would remember fondly after graduation as an opportunity to grow and develop as an engineer and to engage with their cohort of classmates. The (then) Associate Dean (Academic) defined an iconic experience as an activity that was both transformational and built up a cohort experience.

   Transformational activities includes those that (i) assist students to transition from a high school student to a university engineering student or (ii) assist university students to transition towards becoming a professional engineer.

   A cohort experience is an experience that enables the majority of the student body to participate and interact in an activity. The scope of the cohort, as considered here, ranges from all students within a particular plan through to all students within a school/faculty.

   Iconic experiences can be delivered as a component of a course, a course, linked components in a sequence of course, a sequence of courses, or as an extracurricular activity.

   There are two categories of recommendations made by the working party. The first category is recommendations around *iconic experiences*, while the second category is around *transformational experiences* that might not be accessible by the whole cohort.

   Recommendations regarding *iconic experiences* were –
6. Report from the Iconic Experiences Subcommittee (cont’d)

- Consideration be given to revising MECH3600 – Engineering Management & Communication and MECH3100 – Mechanical Systems Design (and their equivalents in other majors) to cohesively follow the one project from inception, requirements, scoping, feasibility and initial design (MECH3600) to detailed design, build, and test (MECH3100). (Recommendation 1)
- Consequential changes to implement a build component within Mechanical and Aerospace plan be made as Mechanical and Aerospace students take AERO3110 - Aero Design and Manufacturing instead of MECH3100. Such a change may require that some content may need to move from AERO3110 to other courses in the Mechanical and Aerospace plan. (Recommendation 2)
- Consequential changes to courses occur as part of the overall review of the undergraduate engineering programs currently being undertaken by the Faculty. (Recommendation 3)
- Project components in engineering science and technology courses should align with larger projects that might be part of the design/build stream to make the project more motivating and its place with the plan more coherent and consistent. (Recommendation 4)
- The course coordinator of MECH2100 – Machine Element Design consider including field trips as part of that course from 2017 (Recommendation 5)

Recommendations regarding transformational experiences were –

- Theses and design projects to be expanded to include topics that include social impact and extensions to student led and managed extracurricular competitions, such as the Formula SAE (FSAE). (Recommendation 6)
- Additional extracurricular activities explored as part of the undergraduate engineering curriculum review, specifically student competitions (similar to FSAE) and socially conscience engineering projects. (Recommendation 7)

The main recommendations were directed toward Year 3 in the mechanical engineering plans to include a design and build component across two semesters. Linking MECH3600 and MECH3100 was supported and consideration was being given to making a change to the mechanical and aerospace engineering, and mechanical and materials engineering programs to include MECH3100 with another course being omitted. It was suggested that some industry support might be obtained to enable an authentic ”build” experience.

Members noted the mining field trip, which had been identified as an iconic experience, had been cancelled in 2016.

The report was endorsed and the recommendations 1-5 would be considered as part an overall review of the design stream from Years 1-4. A separate working party would be appointed to pursue this.

Recommendations 6 and 7 would have budgetary implications and further investigation was required as far as extracurricular activities were concerned. A working party would be appointed to pursue this. It was important that extracurricular activities needed to be student driven with staff available as mentors.

7. Report: Embedding Sustainability in Engineering programs

At the 19 May 2015 meeting of the School’s Teaching and Learning Committee, members noted that the School of Chemical Engineering was investigating ways to better embed sustainability across the engineering programs. Requirement M3 of the 2012 Engineers Australia visit stated “Develop a culture amongst and commitment from academic staff to ensure adequate treatment of ethics, sustainability, and engineering professionalism throughout the degree programs, embedding them as essential components in all relevant courses. The current approach in the School of Chemical Engineering could be seen as an appropriate starting point”.

The Chair of the Teaching and Learning Committee in Chemical Engineering, Dr Birkett, proposed that the Faculty contract an expert in sustainability to undertake a scoping study. Dr Glen Corder, from the Sustainable Minerals Institute, was identified as a person who could do this study. The aim of this study was to explore the feasibility of establishing a framework to enable consistent incorporation of sustainability within the engineering program that was user friendly for course coordinators.
7. Report: Embedding Sustainability in Engineering programs

Members were advised that this had not yet been discussed by the Faculty committees and were asked to read through it and make comments.

8. e-Portfolio

Members noted the update on the development of an e-Portfolio. The possible use of this software (Chalk and Wire) in the Engineering programs should be explored.

9. Short term mobility

Members noted the report “Short-term Mobility Research”.

10. Student Summit

Members noted the outcomes of the 2015 UQ Student Summit. A number of engineering students attended and some useful comments were made.

11. Teaching and Learning Calendar 2016

Members noted the Faculty’s Teaching and Learning calendar. The Board of Studies dates have been added into the calendar.

12. Membership and Terms of Reference

Members noted the membership and terms of reference for the School’s Teaching and Learning Committee.

13. e-Learning Update

Members noted the eLearning updated 19 January 2016

14. Report from the Library

Ms Yorke-Barber provided the report from the Library. The report would be placed into the next School newsletter.

Resources for Courses/Subjects

The Library’s Learning Resources Service managed access to the learning resources for coursework students. They were well underway in ordering texts from reading lists and placing copies into the High Use Collection.

Library Subject Guides

The Library published subject guides to help students find information and the best resources in their area. Mining and Metallurgy, Materials and Mechanical and Aerospace Engineering and for all other subjects Library Guides. These could be linked to Blackboard.

Library skills class and customised guides for an individual course

Library skills classes for individual courses were available.

Copyright Advice

The copyright advice service provided guides, training and consultation on copyright issues related to teaching.

Video/Multimedia

The Library provided access to free-to-air and Foxtel Pay TV content to support teaching, learning and research at UQ in accordance with the Screenrights License.
14. Report from the Library (cont’d)

Change of opening hours for the Dorothy Hill Physical Sciences & Engineering Library
New hours for Semester 1 2016:
Monday to Friday 8am - 6pm
Saturday and Sunday 12pm - 5pm
Level 1 Study Space; early entry from 6am

15. Report from the Director, First Year Engineering

Associate Professor Reidsema reported that -

- The mid-year working party report was being prepared.
- There were 1026 students enrolled in ENGG1100 in Semester 1 2016.
- There were early indications of Year 2 (2017) specialisations which were consistent with 2016.