Present: Dr Mehmet Kizil (in the Chair), Associate Professor Vaughan Clarkson, Dr Mathew Cleary, Associate Professor Lydia Kavanagh, Mr Douglas Malcolm, Professor Richard Morgan, Associate Professor Martin Veidt, Associate Professor Mingxing Zhang. Mrs Lamb.

Apologies: Professor Andrej Atrens, Ms Cristina Ghiculescu, Professor Ross McAree, Associate Professor Andrew Morrell, Associate Professor Carl Reidsema.

Minutes: The minutes of the meeting held on 16 August 2010, having been previously circulated, were taken as read and confirmed.

Business arising out of the minutes

• Course and program list changes had been submitted to the Engineering Board of Studies for consideration at their next meeting.
• Course coordinators had been invited to comment on SECaT results and congratulations had been sent to course coordinators and teaching teams that scored high results in the Semester 1 2010 SECaT evaluations.
• The Associate Dean (Academic) had been asked to seek feedback from the University’s Teaching and Learning Committee regarding the course coordinator’s access to individual teaching SECaT results for lecturers.
• Professor Simmons had been formally congratulated by the Head of School for his recent ALTC award.
• Staff receiving nominations for the ‘most effective teacher’ had been congratulated.
• The School’s First Year Discipline Lunch had been scheduled for 13 September (12:00 – 1:00 pm).
• There had been a delay in publishing CTQA data for review by plan leaders. The School Manager will advise staff when this data becomes available.

1. Program List Changes

1a. Changes to the BE (Mechanical and Materials) list

The Head of Division of Materials Engineering has requested changes to Year 3 and Year 4 of the Bachelor of Engineering (Mechanical and Materials) to take effect from Semester 1 2011. Similar changes were planned to be made to the BE (Chemical) and the BE (Chemical and Materials).

The proposed changes to the program list affected Year 3 and 4 only and are set out below (bold italics for additions, strikethrough for deletions) -

**Year 3, Semester 2**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MECH3100</td>
<td>2</td>
<td>Mechanical &amp; Space Systems Design</td>
</tr>
<tr>
<td>MECH3200</td>
<td>2</td>
<td>Advanced Dynamics &amp; Vibrations</td>
</tr>
<tr>
<td>MECH3410</td>
<td>2</td>
<td>Fluid Mechanics</td>
</tr>
<tr>
<td>[ MECH4301</td>
<td>2</td>
<td>Materials Selection</td>
</tr>
<tr>
<td>[ or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[ CHEE4301</td>
<td>2</td>
<td>Nanomaterials &amp; Their Characterisation</td>
</tr>
</tbody>
</table>

**Year 4 Semester 1**

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>[ CHEE3305</td>
<td>2</td>
<td>Biomaterials: Materials in Medicine</td>
</tr>
<tr>
<td>[ or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[ CHEE3301</td>
<td>2</td>
<td>Polymers</td>
</tr>
<tr>
<td>[ CHEE3301</td>
<td>2</td>
<td>Nanomaterials &amp; Their Characterisation</td>
</tr>
<tr>
<td>METR3200</td>
<td>2</td>
<td>Introduction to Control Systems</td>
</tr>
<tr>
<td>MECH4304</td>
<td>2</td>
<td>Net Shape Manufacturing</td>
</tr>
</tbody>
</table>

**Year 4 Semester 2**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AERO3100</td>
<td>2</td>
<td>Aerospace Materials</td>
</tr>
<tr>
<td>CHEE4301</td>
<td>2</td>
<td>Polymer Engineering</td>
</tr>
</tbody>
</table>
1. Program List Changes (cont’d)

1a. Changes to the BE (Mechanical and Materials) list (cont’d)

CHEE4302  2  Electrochemistry & Corrosion

[MECH4301  2  Materials Selection

[ or

/CHEE4301  2  Nanomaterials & Their Characterisation

Members noted that these changes had been submitted too late for inclusion in the print copy of the Program Handbook. However, the changes would be on the University’s website. The Head of Division (Materials) had been asked to ensure there were no impacts on articulation arrangements with international partners. The Faculty’s Timetables Officer had been advised on the impact on timetabling and the course coordinator, CHEE4301, indicated that he was aware of the changes.

It was resolved to recommend –

that the following changes be made to the BE (Mechanical and Materials) list from Semester 1 2011 -

▪ Move CHEE3301 (Polymers) from Year 4, Semester 2 to Year 4 Semester 1;
▪ Move CHEE4301 (Nanomaterials and their Characterisation) from Year 4 Semester 1 to both Year 3 Semester 2 and Year 4 Semester 2; and
▪ In Year 3, Semester 2 students will choose from one of CHEE4301 or MECH4301 (Materials Selection) and in Year 4, Semester 2 students would take the other course.

2. Errors in Examination Papers

Members discussed a report that had been prepared by the University’s Examination Section on errors in Semester 1 2010 examination papers. Prior reviews have been held for the previous two semesters where members of the School’s Teaching and Learning Committee discussed the current business processes to review papers which included review of the complete paper by another member of academic staff and subsequent sign off by the divisional chief examiner. Additional administrative checks had been made by School administrative staff. It had also been suggested that the course coordinator, another academic or a postgraduate tutor attempt the examination prior to submission which could decrease the amount of errors resulting from poorly worded or incomplete questions. It had also been agreed that administrative assistance would be provided for the coversheets and submission sheet to allow the academic staff additional time to proofread the academic content of the paper.

Members noted that the School’s error rate has been reduced over the past two semesters. However, the error rate was not lowered sufficiently to receive congratulations from the Assessment Subcommittee.

Errors identified prior to the examination

Of 20 Semester 1 2010 papers submitted for printing, 7 (35%) contained errors which were identified by Examinations Section staff prior to printing.

These errors included the following –

▪ Images/text unclear (4 papers). The remedy is to ensure that the image and text is clear on green paper which the School now understands requires a higher quality image than if printed on white paper (green paper is the standard colour for central examinations). The Administrative staff in the School will do a test copy on green paper prior to submission of the paper.
▪ Unclear instructions (1 paper). It was not clear if images could be in black and white or if colour was required.
▪ Whole paper/pages replaced (2 papers): The School inadvertently overlooked a link between the MECH2300/2301 papers. This has been corrected for future submissions.
2. **Errors in Examination Papers (cont’d)**

**Errors identified in the examination room**

There were four errors on papers that were detected during the examination. These included –

- CHEE4301 (1 error): correction to formula
- MECH2305 (2 errors): correction to wording for two questions.
- MINE3121 (1 error): correction to the number of questions that were required to be answered.

It was suggested that the School Manager investigate how the Schools that received commendations were able to reduce the error rates which were administrative in nature. Members also again supported the view that examiners should ask a colleague or postgraduate tutor to attempt the examination and develop model solutions before the paper is sent to Examinations Section as it was felt that errors that were academic in nature might be found prior to the examination.

Members noted that the examination papers were due to be submitted to the relevant chief examiner today and it was resolved to remind course coordinators of the need to carefully scrutinise papers prior to printing.

3. **2011 Teaching and Learning Budget**

As part of the annual budget cycle, and approximately September of the year prior, the School was required to submit its budget to the Faculty for consideration by the Executive Dean and, then subsequently by the Senior Deputy Vice-Chancellor.

The School’s annual operating budget was approximately $9m which included provision for academic and professional salaries and associated costs, teaching and learning activities, research initiatives, strategic funding, international activities, occupational health and safety and building/facilities management with the bulk of the budget committed to salaries.

In 2010, the amount allocated to teaching and learning activities had been $1.143m which included provision for tutors, guest lecturers, field trips, operating costs, laboratory maintenance, workshop costs, and equipment as well as provisions for special initiatives such as the Formula SAE car, the UQ Mine. The bulk of the budget (just under $500k) had been allocated for tutors and guest lecturer payments.

Other initiatives, such as the rolling upgrade of laboratories that had been included in the (former) School of Engineering budget, were not included as not all Schools wished to continue to participate in this scheme.

The requests for teaching and learning activities in the School for 2011 totalled $1.227m, including continued provision of $30,000 for strategic initiatives, which represented an increase of 7% over 2010. The costs for casual salaries included the forecasted 4% increase to the hourly rate.

The primary principle applied in formulating budget requests was to ensure that courses could be not just taught, but taught well. Therefore, teaching staff should request the funding needed to run a course to expected standards by including provision for required items (tutors, consumables, field trips, software, etc.). There was a degree of flexibility in the budget across the School principally to deal with larger than expected, or smaller than expected, enrolments in courses; however, the extent of the flexibility depended on the School’s overall position which was not yet known.

Major expenditure categories included -

- ~$500,000 for casual academic staff salaries (tutors, guest lecturers) - $494,000 in 2010;
- ~$132,000 for consumables;
- ~$215,000 for work to be done by the Faculty Workshop Group;
- ~$135,000 for specific laboratory and special project support;
- ~$25,000 for international undergraduate student scholarships;
- ~$25,000 for field trips; and
- ~$25,000 for project support for SCUT and ME (Engineering Science) students.
3. **2011 Teaching and Learning Budget** (cont’d)

Members noted that the Faculty had not yet provided the total income figure to the School so further adjustments to the requests might be required.

It was resolved to recommend –

that the Head of School approve $1.227m for the 2011 Teaching and Learning Budget.

4. **Bachelor of Engineering and Master of Engineering**

The Director, First Year Engineering updated members on the proposal to offer a five year combined Bachelor of Engineering/Master of Engineering award. The following was being proposed –

- First year would include four courses which would be compulsory for all students. This would include two mathematics courses (MATH1051, MATH1052) and two courses, ENGG1100 and ENGG1200. Both courses would contain a projects and a design and build component.
- Students would also choose at least one course from engineering thermodynamics, engineering mechanics (statics/dynamics) and electronics/electrical systems.
- Students missing relevant high school courses would be able to enrol in MATH1050, CHEM1090 and/or a physics course.
- Additional courses would be available as electives.
- Students who met the relevant GPA requirements could choose to enter the BE/ME after completing Year 3 and other students would pursue the four year BE.
- All students would still be required to take a capstone thesis or design course; students in the BE/ME could take a #8 thesis.
- The #8 thesis could be research focussed or be an industry placement.
- Four new courses would be available – there would be three compulsory courses taken by students in the BE/ME: Professional Practice, Advanced Computation, and Engineering Grand Challenges and an elective course in research methods would also be available.
- There would be a three year exit point for students who did not wish to complete the program.

Members noted that the Faculty had sought approval to offer the BE/ME as a combined degree (single testamur) and this policy issue was being discussed by the Committee for Academic Programs Policy (CAPP). It was planned to offer the program from 2012.

New course proformas for the first year courses were nearly finalised and these would be circulated to Schools in the near future. Consequential changes to the remainder of the program for all fields would be required to be done in time to meet relevant University deadlines.

Members were advised that at a recent staff/student liaison meeting in Mechanical Engineering, students requested that information on the changes be posted on a website as soon as possible.

5. **Special Education Symposium**

Members noted that the DVC (Academic), the School of Education, and the Faculty had sponsored a special education symposium led by Mr Denis Schatz, Senior Vice President (Strategic Programs), from Pacific Science Center in Seattle, Washington. The symposium would be held on 11 October.

It was agreed that the information should be published in the School’s Newsletter.

6. **BE First Year Discipline Lunch**

The BE First Year Discipline Lunch had been held earlier in the day. Attendance was estimated to be more than 100 students with a few pizzas left over (70 were ordered). The venue of the First Year Learning Centre appeared to have been a good choice.
7. **School Teaching Awards**

Dr Cleary absented himself for the discussion.

The School offered up to 2 awards each year at the discretion of the Head of School on the recommendation of the Teaching and Learning Committee: one for Teaching Excellence and the other for Outstanding Contribution to Student Learning. Winners received a certificate and $2,500 which would be deposited into the staff member’s ACA (consulting) account. These awards mirrored those for the Faculty and successful School awardees would be eligible for a Faculty nomination in the next available round.

**Nominations received**

The following nominations had received from staff in the School –

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aminossadati, Saiied</td>
<td>Excellence in Teaching</td>
</tr>
<tr>
<td>Caceres, Carlos</td>
<td>Excellence in Teaching</td>
</tr>
<tr>
<td>Cleary, Matthew</td>
<td>Excellence in Teaching</td>
</tr>
<tr>
<td>Dahle, Arne</td>
<td>Excellence in Teaching</td>
</tr>
</tbody>
</table>

No nominations had been received for Citations for Contribution to Student Learning.

As the agenda had been circulated later than usual, it was agreed to give members sufficient time to review, reflect and make an informed recommendation on the nominations.

It was resolved –

(i) that members, except those who were a nominee, carefully review all nominations and submit a ranked list (1-4) to the Secretary by email (marked confidential) by Monday 20 September; and

(ii) that, while reviewing applications, members recommend if any of the nominations might be suitably recast as a nomination for a Citation for Contribution to Student Learning.

8. **ENGG1000 – Semester 1 2011**

The Director, First Year Engineering requested that there be at least two project leaders for mechanical engineering projects to cater for expected demand. It was also suggested that postdoctoral fellowships consider submitting ResTeach applications with the view to becoming a project leader. Recent SECaT results suggested that postdoctoral fellows as project leaders was well received among the students.