MEMBERS OF THE FACULTY BOARD OF ENGINEERING, COMPUTING AND MATHEMATICS

Dean as Chair (Professor Mark Bush)
Deputy Dean (Associate Professor Carolyn Oldham)
Associate Dean (Academic) (Dr Angus Tavner)
Associate Dean (International) (Dr Kamy Cheng)
Associate Dean (Research) (Associate Professor Rachel Cardell-Oliver)
Associate Dean (Students) (Dr Jenny Hopwood)
Head, School of Civil and Resource Engineering (Professor Andrew Deeks)
Head, School of Computer Science and Software Engineering (Professor Mohammed Bennamoun)
Head, School of Electrical, Electronic and Computer Engineering (Associate Professor Brett Nener)
Head, School of Environmental Systems Engineering (Professor Keith Smettem)
Head, School of Mathematics and Statistics (Associate Professor Les Jennings)
Head, School of Mechanical Engineering (Professor Brett Kirk)
Representative, Civil and Resource Engineering (Professor Arcady Dyskin)
Representative, Computer Science and Software Engineering (Professor Barry Leahane)
Representative, Computer Science and Software Engineering (Dr Cara MacNish)
Representative, Computer Science and Software Engineering (Associate Professor Mark Reynolds)
Representative, Electrical, Electronic and Computer Engineering (Associate Professor Victor Sreeram)
Representative, Electrical, Electronic and Computer Engineering (Dr Roberto Togneri)
Representative, Environmental Systems Engineering (Professor Chari Pattiaratchi)
Representative, Environmental Systems Engineering (Dr Kyungrock Paik)
Representative, Mathematics and Statistics (Professor Andrew Bassom)
Representative, Mathematics and Statistics (Associate Professor Bill Longstaff)
Representative, Mechanical Engineering (Dr Matt Hardin)
Representative, Mechanical Engineering (Dr Tim Sercombe)
Undergraduate Student Representative from the BE (Mr Josh Kirk)
Postgraduate Student Representative from the PSA (Mr Bobby Chu)
President, Engineering Graduates Association (no president elected for 2008)
Undergraduate Student Representative from the BCM/BCompSc (Mr Oren Nachman)
Faculty Manager (Mr Paul Higgs)
Chair of Mechatronics Discipline Group (Professor James Trevelyan)
Senior Faculty Administrative Officer (Ms Felicia Symonds)

Observer: Mr Alex Doncon, Faculty Undergraduate Student Representative from the BE

FACULTY BOARD MEETING – 16 APRIL 2008

The next meeting of the Faculty Board will be held in the Billings Room, Third Floor, Electrical and Electronic Engineering Building, on Wednesday, 16 April 2008 at 2.00 pm.

Part 1 of the agenda has items of communication to be dealt with en bloc. Part 2 of the agenda is items for decisions to be dealt with en bloc by motion of the Chair. Part 3 is for discussion and decision. A member may request the removal of an item from Parts 1 or 2 to Part 3.

INDUCTION FOR NEW MEMBERS OF THE FACULTY BOARD

The Rules for the Operation of Committees provide that:

"Executive Officers should work with the Chair to provide all new members with induction briefing material and appropriately induct new members into the committee...."

An induction package has been emailed to new members. Should you require any further information, please contact the Executive Officer.

Felicia Symonds
Executive Officer
CONGRATULATIONS

The Faculty congratulates the following staff on their recent promotions and appointments:

**Promotion to Professor**
Professor Mohammed Bennamoun (School of Computer Science and Software Engineering)
Professor Keith Smettem (School of Environmental Systems Engineering)

**Promotion to Senior Lecturer**
Dr Farid Boussaid (School of Electrical, Electronic and Computer Engineering)
Dr Melinda Hodkiewicz (School of Mechanical Engineering)
Dr Eric May (School of Mechanical Engineering)

**Promotion to Lecturer**
Dr Tim French (School of Computer Science and Software Engineering)

**Appointment of Head of School**
Associate Professor Brett Nener (School of Electrical, Electronic and Computer Engineering) for a term of five years from 1 January 2008

**Appointment to Professorial Fellow**
Professor David White (Centre for Offshore Foundation Systems/School of Civil and Resource Engineering).

WELCOME

The Chair welcomes all new and returning members to the first meeting of the Faculty Board for 2008.

AGENDA

1. **MINUTES** – REF: F3047


PART 1 – ITEMS FOR COMMUNICATION TO BE DEALT WITH EN BLOC

2. **PRINCIPLES AND RULES FOR THE OPERATION OF COMMITTEES** – REF: F12202

   Members will be aware that all committees of the University are expected to operate according to the principles set out in the *Principles for the Operation of Committees*.

   In 2005 the Deputy Vice-Chancellor and the Executive Director (Academic Services and Registrar) commissioned a “Working Smarter Through Committees” working party in order to investigate ways of streamlining and improving committee processes, without compromising collegiality.

   In accordance with Recommendation 9 – *That the University’s principles and rules for the operation of committees are distributed (as part of the agenda) to all committee members and the Chair explicitly address these at the first meeting of each year* – the principles and rules are attached, along with the code of conduct for committee members ([Attachment A](#)).

   The Chair will speak to the principles, rules and code of conduct.

3. **POSTGRADUATE TEACHING AND LEARNING COMMITTEE** – REF: F18789

   The Chair of the Faculty’s Postgraduate Teaching and Learning Committee (PTLC) had requested that Faculty Board be apprised of the committee’s decisions and thus the following resolutions, made at the PTLC meeting of 19 March 2008, are brought to members’ attention:

RESOLVED – 2/08

that the Deputy Associate Dean be entrusted with amending the relevant 2009 Faculty rules, incorporating the amendments included in Admission Requirements for Postgraduate Courses (see http://intranet.uwa.edu.au/ecm/welcome/docs/admin), and making any further required changes, in line with Recommendation 13 of the Working Party report:

That the admissions requirements for all courses be transparent and easily understood by applicants and administrators.

b) Item 18: Review of Course and Unit Approval Process – Ref: F19761

RESOLVED – 03/08

that a Faculty Rules Review committee comprising Faculty Office staff be formed, to review proposed course and unit changes and provide feedback to Schools, prior to submission of these proposals to Faculty Board.

The full discussion of these items can be found at: http://intranet.uwa.edu.au/ecm/welcome/committees/ptlc/agenda_mins/2008

For noting.

4. 2008 JEAN ROGERSON UNDERGRADUATE STUDENTSHIPS – REF: F7016

The conditions for award of the Jean Rogerson Undergraduate Studentships in the Faculty of Engineering, Computing and Mathematics can be found on the web at: http://www.publishing.uwa.edu.au/spe/latest/scholarships/undergraduate/rogersonstudentseng.asp

The studentships are awarded by the Faculty Board. The twelve successful students listed below will be presented their awards at the Faculty Awards Ceremony to be held on Friday, 16 May 2008:

<table>
<thead>
<tr>
<th>Ms Naomi ALTMAN</th>
<th>Mr James David MADDOCK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr Yita CHOONG</td>
<td>Mr Tao Achilles MANTARAS</td>
</tr>
<tr>
<td>Mr Brodie DEWAR</td>
<td>Ms Leanne NGAI</td>
</tr>
<tr>
<td>Ms Jessica Zhaohui GOH</td>
<td>Mr Robert PALMER</td>
</tr>
<tr>
<td>Miss Hin Tung Fion LAU</td>
<td>Mr Callum SHAKESPEARE</td>
</tr>
<tr>
<td>Ms Wenxiang LAI</td>
<td>Mr Joseph William WATERS</td>
</tr>
</tbody>
</table>

For noting.

PART 2 – ITEMS FOR DECISION TO BE DEALT WITH EN BLOC

5. ESTABLISHMENT OF THE MCCONNELL DOWELL PRIZE IN CIVIL ENGINEERING ANALYSIS AND MODELLING – REF: F22900

Following consultation between the Office of Development and McConnell Dowell Corporation Ltd, it is proposed to establish the McConnell Dowell Prize in Civil Engineering Analysis and Modelling for implementation in 2008.

The proposed conditions of the award are as follows:

The McConnell Dowell Prize in Civil Engineering Analysis and Modelling of $500 provided annually by McConnell Dowell Corporation Ltd, is awarded by the Board of Examiners in the Faculty of Engineering, Computing and Mathematics to the student who has gained the highest mark in Civil Engineering Analysis and Modelling (CIVL3140).

The Chair recommends that Faculty Board approve the conditions for the McConnell Dowell Prize in Civil Engineering Analysis and Modelling, as set out above, for implementation in 2008.
6. SCHOOL OF MECHANICAL ENGINEERING – PROPOSAL TO CHANGE THE NAME OF A UNIT – REF: F5073

Attached is a memorandum dated 29 February 2008 from the Head of the School of Mechanical Engineering, proposing that the name of the unit CPHR4531 Fluid Phase and Transport Phenomena be changed to CPHR4531 Advanced Prediction of Fluid Properties, for implementation in 2009 (Attachment B).

The unit content remains unchanged.

The Chair recommends that Faculty Board approve the change in unit name from CPHR4531 Fluid Phase and Transport Phenomena to CPHR4531 Advanced Prediction of Fluid Properties, for implementation in 2009.

7. SCHOOL OF MATHEMATICS AND STATISTICS – PROPOSAL TO MAKE A MINOR CHANGE TO MAJORS IN THE BACHELOR OF COMPUTER AND MATHEMATICAL SCIENCES (BCM) – REF: F4872

Attached is a memorandum dated 27 March 2008 from the Head of the School of Mathematics and Statistics, proposing the following changes to the majors in the BCM and combined courses with the BCM (Attachment C).

a) Minor change to the major in Applied Statistics (MJ-MTAST) (Table 6.2.3k) as follows:
   - Move STAT3400 from Group E to Group F.
   - Add PSYC3301 Psychological Research Methods: Design and Analysis to Group F.

b) Delete the major in Discrete Mathematics (MJ-MTDSC), Rule 6.2.3.10 and Table 6.2.3l Discrete Mathematics Major Options.

c) Delete the major in Operations Research (MJ-OPRSH), Rule 6.2.3.13 and Table 6.2.3p Operations Research Major Core Units, Table 6.2.3q Operations Research Major Options.

The Chair recommends that Faculty Board approve the changes to rules and tables, as outlined above, and forward to Academic Council for approval and final drafting by the Legislative Committee.

8. SCHOOL OF MATHEMATICS AND STATISTICS – PROPOSAL TO INTRODUCE ONE NEW UNIT IN THE BACHELOR OF COMPUTER AND MATHEMATICAL SCIENCES (BCM), BACHELOR OF ARTS (BA) AND THE BACHELOR OF SCIENCE (BSC) – REF: F4872, F4985, F4992

Attached is a memorandum dated 1 April 2008 from the Head of the School of Mathematics and Statistics, together with a completed checklist, a New Unit Chart and Deleted Unit Chart; proposing to introduce the following new unit to replace an existing unit, MATH3380 3GG: Graphs and Geometry with Applications to Networks and Computer Vision in the BCM, BA and BSc (Attachment D):

- MATH3370 3ALG: Rings, Fields and Matrix Algebras

The Chair recommends that Faculty Board approve the introduction of the new unit MATH3370 3ALG: Rings, Fields and Matrix Algebras in the BCM, BA and BSc in place of MATH3380 3GG: Graphs and Geometry with Applications to Networks and Computer Vision for 2009.

9. SCHOOL OF COMPUTER SCIENCE AND SOFTWARE ENGINEERING – PROPOSAL TO CHANGE UNIT OFFERINGS – REF: F5073

Attached is a memorandum dated 25 March 2008 from the Head of the School of Computer Science and Software Engineering, together with all required documentation; proposing the following changes to unit offerings for 2009 (Attachment E):
a) New units to be introduced

CITS2XXX Databases (replacing level 3 CITS3240 Databases) will run in semester 1
CITS4XXX Advanced Databases (NEW) will run in semester 1 (but will not be offered in 2009)
CITS3XXX Programming Paradigms (NEW) will run in semester 1

b) Units to be deleted

CITS1211 Foundations of Computer Science
CITS2210 Object-oriented Programming
CITS3211 Functional Programming
CITS3212 Artificial Intelligence and Logic Programming
CITS3213 Concurrent Systems
CITS3240 Databases
CITS4210 Neural Computation
CITS4241 Visualisation

c) Units not offered in 2009

CITS1230 Foundations of Information Technology
CITS4221 Formal Methods in Software Engineering
CITS7209 Special Topics in Computer Science and Software Engineering
CITS7239 Advanced Topics in Information Technology
CITS8229 Advanced Topics in Software Engineering

d) Units changing semester in 2009

CITS3201 Human–Computer Interaction (Semester One)
CITS3241 Robotics (Semester One)

e) Unit changing its name in 2009:

CITS2231 Introduction to Graphics changes to CITS2231 Graphics

The Chair recommends that Faculty Board approve the unit changes detailed above.

10. SCHOOL OF COMPUTER SCIENCE AND SOFTWARE ENGINEERING – PROPOSAL TO OFFER A NEW MAJOR IN THE BACHELOR OF COMPUTER SCIENCE (BCOMPSC) and THE BACHELOR OF COMPUTER AND MATHEMATICAL SCIENCES (BCM) – REF: F1228, F4872

Attached is a memorandum dated 25 March 2008 from the Head of the School of Computer Science and Software Engineering, together with a completed checklist, rules with track changes and study guides; proposing to offer a new major, Software Management, in the BCompSc and the BCM and related combined courses (Attachment F).

The new Software Management major will offer a coherent stream of units concentrating on the processes to manage the design, delivery and assessment of new software products and will, with the other current majors: Computation, Systems, Web Technologies and Entertainment Technologies, provide an attractive choice while allowing efficient use of teaching resources.

The Chair recommends that Faculty Board approve the proposed introduction of the new major, Software Management, into the BCompSc and the BCM and related combined courses and subsequent changes to the rules for 2009, as set out in the attachment; and forward to Academic Council for approval and final drafting by the Legislative Committee.
11. SCHOOL OF COMPUTER SCIENCE AND SOFTWARE ENGINEERING – MINOR CHANGES TO THE BACHELOR OF ENGINEERING (BE) IN SOFTWARE ENGINEERING – REF: F1236

Attached is a memorandum dated 27 March 2008 from the Head of the School of Computer Science and Software Engineering, together with rules with track changes and study guides; proposing consequential changes to the BE (Software Engineering) and related combined courses as a result of changes to unit offerings and the introduction of a new Major in the BCM and the BCompSc (Attachment G).

The Chair recommends that Faculty Board approve the proposed changes to the rules for the BE (Software Engineering) and related combined courses for 2009, as set out in the attachment; and forward to Academic Council for approval and final drafting by the Legislative Committee.

12. SCHOOL OF COMPUTER SCIENCE AND SOFTWARE ENGINEERING – MINOR CHANGES TO THE DIPLOMA IN INFORMATION TECHNOLOGY, GRADUATE CERTIFICATE IN INFORMATION TECHNOLOGY, GRADUATE DIPLOMA IN INFORMATION TECHNOLOGY, MASTER OF INFORMATION TECHNOLOGY, GRADUATE DIPLOMA IN COMPUTER SCIENCE AND MASTER OF COMPUTER SCIENCE – REF: F5410, F5412, F5411, F15003, F5347, F5348

Attached is a memorandum dated 27 March 2008 from the Head of the School of Computer Science and Software Engineering, together with rules with track changes and study guides; proposing consequential changes to the Diploma in Information Technology and the above named postgraduate degrees as a result of changes to unit offerings and the introduction of a new Major in the BCM and the BCompSc (Attachment G).

The Chair recommends that Faculty Board approve the proposed changes to the rules for the degrees named above for 2009, as set out in the attachment; and forward to Academic Council for approval and final drafting by the Legislative Committee.

13. SCHOOL OF MECHANICAL ENGINEERING – PROPOSAL TO INTRODUCE FIVE NEW UNITS IN THE MASTER OF ENERGY SYSTEMS ENGINEERING, THE GRADUATE DIPLOMA IN ENERGY SYSTEMS ENGINEERING AND THE GRADUATE CERTIFICATE IN ENERGY SYSTEMS ENGINEERING – REF: F22910, F22911, F22912

Attached is a memorandum dated 25 March 2008 from Professor Brett Kirk, Head of the School of Mechanical Engineering, together with completed checklists, unit outlines and a New Unit Chart; proposing to introduce five new units in the Master of Energy Systems Engineering, the Graduate Diploma in Energy Systems Engineering and the Graduate Certificate in Energy Systems Engineering for 2009 (Attachment H).

Members will recall that these courses were approved by Academic Council, at its meeting on 5 March 2008 (R19/08). The five new units now being proposed were included in the rules submitted for introduction in 2009, as follows:

**ASST 8434 BL Health, Risk and Safety**
This unit is a combination of the existing units ASST 8573 Health and Safety and OENA8553 Qualitative Risk Analysis in the previous programme, Master of Engineering (Energy Systems Management).

**CHPR8430 BL Petroleum Fluids and Process Engineering**
This unit is a combination of the existing units CHPR8531 Petroleum Fluids and CHPR8530 Process Engineering in the previous programme, Master of Engineering (Energy Systems Management).

**OENA8431 BL Offshore Structure and Fixed Offshore Platforms**
This unit is a combination of the existing units OENA8551 Offshore Structures and OENA8561 Qualitative Risk Analysis in the previous programme, Master of Engineering (Energy Systems Management).
PETR8431 BL Reservoir Engineering
This unit is a combination of the existing units PETR8511 Fundamental Reservoir Engineering and PETR8520 Advanced Reservoir Engineering in the previous programme, Master of Engineering (Energy Systems Management).

PETR8432 BL Drilling and Completions Engineering
This unit is a combination of the existing units PETR8514 Drilling Engineering and PETR8513 Completions Engineering in the previous programme, Master of Engineering (Energy Systems Management).

The Chair recommends that Faculty Board approve the introduction of the units named above into Master of Energy Systems Engineering, the Graduate Diploma in Energy Systems Engineering and the Graduate Certificate in Energy Systems Engineering for 2009.

14. SCHOOL OF MECHANICAL ENGINEERING – PROPOSAL TO INTRODUCE ONE NEW UNIT INTO THE MATERIALS MAJOR IN THE MECHANICAL ENGINEERING PROGRAMME– REF: F1198

Attached is a memorandum dated 1 April 2008 from Professor Brett Kirk, Head of the School of Mechanical Engineering, together with a completed checklist, unit outline and a New Unit Chart; proposing to introduce one new unit in the Materials Major in the Mechanical Engineering Programme (Attachment I1-9):

- MATE2412 Materials Engineering II.

A second memo dated 1 April 2008 explains that the unit was inadvertently omitted from the proposal approved by Faculty Board (R8/08) by circular dated 10 March 2008 and provides details of the rule change required (Attachment I10).

The Chair recommends that Faculty Board approve the introduction of the new unit MATE2412, Materials Engineering II into in the Materials Major in the Mechanical Engineering Programme for 2009.

15. SCHOOL OF MECHANICAL ENGINEERING – PROPOSAL FOR MINOR CHANGES TO THE CHEMICAL AND PROCESS ENGINEERING PROGRAMME – REF: F5073

Members will recall the major changes to the content of the Chemical and Process Engineering programme in the Bachelor of Engineering approved by Faculty Board (R9/08) by circular dated 10 March 2008, so as to satisfy the recommendations of the Engineers Australia Accreditation Report 2007. Attached is a memorandum dated 1 April 2008 from the Head of the School of Mechanical Engineering, proposing further minor changes to the content of the Chemical and Process Engineering programme (Attachment J).

The Chair recommends that Faculty Board approve the proposed minor changes to the content of the Bachelor of Engineering (Chemical and Process Engineering) and subsequent changes to the rules for 2009, as set out in the attachment, and forward to Academic Council for approval and the Legislative Committee for final drafting.

16. SCHOOL OF MECHANICAL ENGINEERING – PROPOSAL FOR MINOR CHANGES TO THE GRADUATE CERTIFICATE IN ENGINEERING ASSET MANAGEMENT, THE GRADUATE DIPLOMA IN ENGINEERING ASSET MANAGEMENT AND THE MASTER OF ENGINEERING ASSET MANAGEMENT – REF: F12463, F12464, F12465

Attached is a memorandum dated 2 April 2008 from Professor Brett Kirk, Head of the School of Mechanical Engineering, together with rules in track changes, completed new unit checklists, unit outlines and a New Unit Chart; proposing the following (Attachment K):

a) To amend the course titles to the Master of Business and Engineering Asset Management, Graduate Diploma in Business and Engineering Asset Management and Graduate Certificate in Business and Engineering Asset Management.
b) To provide the documentation for the (new) Dissertation Units - ASST8630 MEAssetMgt Part 1, ASST8631 MEAssetMgt Part 2 and ASST8632 MEAssetMgt Part 3, which, had not been provided when the courses were approved. The name of these units also changes in line with the change of title of the courses.

c) To close direct entry into the Graduate Certificate and to provide the course only as an exit point for the Graduate Diploma in Business and Engineering Asset Management.

d) To make changes to the ‘Admission’ section of the rules for the Graduate Diploma in Business and Engineering Asset Management and the Master of Business and Engineering Asset Management, as described in the attached memo and detailed in the draft rules.

e) Minor changes to the unit offerings for the Graduate Diploma in Business and Engineering Asset Management, as described in the attached memo and detailed in the attached rules in track change.

Dr Hodkiewicz has discussed all proposed changes with the Business School and has received no objections.

The Chair recommends that Faculty Board approve:

- the proposed new unit documentation for the dissertation units,
- minor changes to the course title,
- that the Graduate Certificate in Business and Engineering Asset Management be only an exit point and not permit admission,
- changes to the rules of Graduate Diploma in Business and Engineering Asset Management and the Master of Business and Engineering Asset Management

as set out in the attachment; and forward to Academic Council for approval and the Legislative Committee for final drafting.

17. SCHOOL OF ELECTRICAL, ELECTRONIC AND COMPUTER ENGINEERING AND THE SCHOOL OF MECHANICAL ENGINEERING – PROPOSAL TO INTRODUCE ONE NEW UNIT INTO THE BACHELOR OF ENGINEERING – REF: F4990

Attached is a memorandum from Professor Brett Kirk, Head of the School of Mechanical Engineering and Associate Professor Brett Nener, Head of the School of Electrical, Electronic and Computer Engineering, received on 4 April 2008, together with a completed checklist and a New Unit Chart; proposing to introduce one new unit - GENG4XXX Introduction to MicroElectroMechanical Systems - in the following engineering programmes (Attachment L):

- Chemical and Process
- Electrical, Electronic
- Materials
- Mechanical
- Mechatronics

The Chair recommends that Faculty Board approve the introduction of the new unit GENG4XXX Introduction to MicroElectroMechanical Systems into in the Engineering Programmes mentioned above for 2009.

18. SCHOOL OF COMPUTER SCIENCE AND SOFTWARE ENGINEERING – PROPOSAL TO RESCIND THE BACHELOR OF COMPUTER SCIENCE (UWA) / BACHELOR OF SCIENCE (GEOPHYSICS) (CURTIN) – REF: F3028

Attached is a letter dated 4 April 2008 from Associate Professor Bruce Hartley, Acting Head & Undergraduate Course Coordinator in the Department of Exploration Geophysics at the Curtin University of Technology; advising of their intention to discontinue the Collaborative Degree (Bachelor of Computer Science/Bachelor of Science (Geophysics)) between Curtin and UWA, due to low student numbers (Attachment M). It is proposed that no new students be admitted to the course and that the four currently enrolled students be given the opportunity to complete the course.

The Chair recommends that Faculty Board approve the rescission of the Bachelor of Computer Science (UWA) / Bachelor of Science (Geophysics) (Curtin).
In the attached memorandum dated 15 February 2008, proposing the introduction of the Master of Energy Systems Engineering, the Graduate Diploma in Energy Systems Engineering and the Graduate Certificate in Energy Systems Engineering; Professor Brett Kirk, Head of the School of Mechanical Engineering, also proposed that the Master of Engineering (Energy Systems Management) be rescinded once the new courses had been approved and existing students transferred to the Energy Systems Engineering courses (Attachment N).

The Chair recommends that Faculty Board approve the rescission of the Master of Engineering (Energy Systems Management), effective immediately.

PART 3 – ITEMS FOR DISCUSSION AND DECISION

There are no items.