MEMBERS OF THE BOARD OF THE FACULTY OF LIFE AND PHYSICAL SCIENCES

The first meeting of the Board of the Faculty of Life and Physical Sciences will be held on **Monday, 21 January 2008 at 2.15 pm** in the Economics and Commerce conference room.

Membership of the Board is as follows:

Dean (Professor G Stewart)
Deputy Dean (Professor Bob Grove)
Associate Dean, Teaching & Learning (Professor Geoff Hammond)
Associate Dean, Research (Professor Colin Raston)
Academic Student Adviser (Dr Jane Emberson)
Faculty Manager (Ms Jenny Gamble)
Associate Professor Ian Dadour (Director, Centre for Forensic Science)
Mr Roger Dickinson (Director, Centre for Learning Technology)

*Heads (or their nominees) of the following Schools:*
- Anatomy and Human Biology
- Biomedical, Biomolecular and Chemical Sciences
- Sport Science, Exercise and Health
- Physics
- Psychology

*Elected representatives (or their alternates):*
- Professor Jim Chisholm (Anatomy & Human Biology)
- Dr Silvana Gaudieri (Centre for Forensic Science)
- Dr Linda Jeffery (Psychology)
- Mr Hubert Jurkiewicz (Psychology)
- Dr Thelma Koppi (BBCS)
- Ms Heather Morton (Anatomy & Human Biology)
- Mrs Jennifer Stevenson (BBCS)
- Dr Karen Wallman (Sport Science, Exercise and Health)
- Associate Professor Michael Wise (BBCS)

*Nominees from the following Faculties:*
- Professor Lyn Abbott (Faculty of Natural and Agricultural Sciences)
- Dr John Henderson (Faculty of Arts, Humanities and Social Sciences)
- Dr Angus Tavner (Faculty of Engineering, Computing and Mathematics)
- Dr Rachael Moorin (Faculty of Medicine and Dentistry)

Science Union (VP, Education – Ms Matilda Oke)

Part I of the Agenda is to be dealt with en bloc by motion of the Chair. Part II is for discussion. A member may request the removal of an item from Part I to Part II.

**Any member of the Faculty of Life and Physical Sciences (see Statute 8[12]) may attend the meeting as an observer, with speaking rights only, by prior arrangement with the Dean or the Faculty Manager.**

A full copy of this agenda (including attachments) is sent to all administrative secretaries for consultation by Faculty members.

Imelda Ooi
Administrative Officer
WELCOME

Dr Karen Wallman, School of Sport Science, Exercise and Health who replaces Mr Peter Mills as academic staff representative.

AGENDA

1. MINUTES REF: F3059

Confirmation of minutes of meeting held on 21 January 2008.

2. DECLARATIONS OF POTENTIAL FOR CONFLICT OR PERCEIVED CONFLICTS OF INTEREST

The Chair invites members to declare interests in relation to any items on the agenda.

PART I

(Items for Communication to be dealt with en bloc)

3. There are no items.

PART II

(Items for Decision to be dealt with en bloc)

4. ITEMS FROM BOARD OF STUDIES CIRCULAR DATED 2 APRIL 2008

A copy of the noting of decisions taken by circulation to Board of Studies members on 2 April 2008 is attached (Attachment A). As no major concerns or issues were raised, the Chair recommends the following:

a. RESCISSION OF BSc (SCIENCE EDUCATION) REF: F8480

that the BSc (Science Education) programme be withdrawn with immediate effect due to low enrolments.

b. GRADUATE OUTCOMES REF: F5026

that the graduate outcomes for the BSc (Advanced Science), BSc (Biophysical Science), BSc (Green Chemistry), BSc (Physical Science), BSc (Science Communication), BSc (Science Education) and BSc (Scientific Computation) be approved subject to the following amendments suggested by the Academic Student Adviser, Dr Jane Emberson:

BSc (Advanced Science)
the first dot-point to be changed to 'an in-depth understanding of two scientific subjects' as this program now requires completion of two science majors.

BSc (Biophysical Science)
to reflect that students can complete this program with a major in either biophysics or chemistry (or both).

BSc (Science Communication)
outcomes to also include 'an in-depth understanding of one scientific discipline' and 'a broad understanding of related fields'.

BSc (Science Education)
no outcomes to be recorded as the programme has been deleted from 2008 onwards
All the programme outcomes for the Faculty of Life and Physical Sciences have now been submitted and Dr Jane Emberson has suggested that acceptance of the graduate outcomes for individual programmes would be provisional on reviewing them as a whole set.

c. WITHDRAWAL OF BIOC2250 BIOCHEMISTRY REF: F5075

that BIOC2250 Biochemistry offered in the BSc (Animal Science) programme, be suppressed with immediate effect and be withdrawn from 2009 onwards

d. PROPOSED CHANGE TO THE ADMISSION RULES FOR THE HONOURS PROGRAM IN PSYCHOLOGY REF:

that entry to the honours programme in Psychology for 2009 be amended to: “an average of 65% in the third-year units of the major sequence in Psychology”.

e. REQUEST TO CHANGE TITLE OF UNIT ANTH2224 AUSTRALIAN ABORIGINAL ART AND SOCIETY REF:

that the request to change the title of ANTH2224 Australian Aboriginal Art and Society to ‘Aboriginal Art: Production of Meaning’ be endorsed.

f. PROPOSED COMBINED BACHELOR OF SCIENCE AND BACHELOR OF MUSIC REF;

that the proposal for a combined Bachelor of Music and Bachelor of Science in 2009 be endorsed, subject to approval by Academic Council.

g. PROPOSAL FOR THE ADMINISTRATION OF BSc HONOURS OFFSHORE REF:

that the proposal for the administration of BSc Honours offshore (PSB) be endorsed and forwarded to the International Strategies Committee for approval of the proposed fee (i.e. AUD$15,000).

(Secretary’s Note: One member raised some points regarding the proposal and his comments have been noted by the Chair).

5. PROPOSED CHANGE TO ADMISSION RULES FOR MASTER OF SCIENCE (ANALYTICAL CHEMISTRY) REF: F6294

The Course co-ordinator of the Master of Science (Analytical Chemistry) has advised that for entry into the course, an honours degree is not required nor is research experience. He has proposed that the admission Rules for the course be changed as follows:

“Admission

9.6.1A3 The Faculty of Life and Physical Sciences may accept into the course for the degree an applicant who has a bachelor’s degree with honours four year degree in chemistry from this University, or equivalent as recognised by the Faculty.”

The Chair recommends that the admission Rules for the Master of Science (Analytical Chemistry) be changed to a four year degree in chemistry, or equivalent.

6. PROPOSED CHANGE TO RULES FOR MASTER OF PSYCHOLOGY (50560) REF:

The Course structure for the Master of Psychology states:

... 

“9.6.6.4(2) Students are not permitted to enrol in any of the practical placement units until coursework units to the value of at least 24 points have been completed.”
During the recent enrolment exercise, it was found that there were inconsistencies in application of the Rule as it only meant to be applied to the Industrial and Organisational Psychology stream. In order to solve the problem, the School of Psychology has proposed that the above Rule be rescinded and enrolment rules be used to govern enrolment in the placement units. Changes to enrolment rules are as follows:

PSYC8565 External Practicum - Students enrolling in this unit must have completed PSYC8575 Internal Practicum Part 1

PSYC8557 Educational and Developmental Practicum 2 - Students enrolling in this unit must have completed PSYC8552 Assessment and PSYC8558 Educational and Developmental Practicum 1 Part 1

_The Chair recommends that the Rules of the Master of Psychology be amended with the deletion of Rule “9.6.6.4(2) Students are not permitted to enrol in any of the practical placement units until coursework units to the value of at least 24 points have been completed.”_

7. PROPOSED CHANGES TO THE RULES FOR THE BACHELOR OF EXERCISE REHABILITATION SCIENCE AND THE GRADUATE DIPLOMA IN SCIENCE (EXERCISE REHABILITATION) REF:

Early in February this year, the School of Sport Science, Exercise and Health advised that they had received the NUCAP new course accreditation documents from the Australian Association for Exercise and Sports Science (AAESS). In order to make the Bachelor of Exercise Rehabilitation and Graduate Diploma in Science (Exercise Rehabilitation) acceptable to AAESS, it was necessary to change the enrolment of students commencing in these programs in 2008. The Faculty had sought and obtained approval from the Chair of Academic Board for the following waivers:

**Bachelor of Exercise Rehabilitation** – waiver of Rule 9.2.18.4(1)(b) in order to require students to complete all five units (30 points) listed in Group A of Table 9.2.18b; and waiver of Rule 9.2.18.4(1)(c) in order to have students select only one unit (6 points) from Group B listed in Table 9.2.18b.

**Graduate Diploma in Science (Exercise Rehabilitation)** – waiver of Rule 9.5.2A.5(1)(b) in order to require students to complete all five units (30 points) listed in Group A of Table 9.5.2A(2); and waiver of Rule 9.5.2A.5(1)(c) in order to have students select only one unit (6 points) from Group B listed in Table 9.5.2A(2).

To ensure that students meet the accreditation requirements of AAESS for 2009, the School is now formally requesting that the Rules for the Bachelor of Exercise Rehabilitation and the Graduate Diploma in Science (Exercise Rehabilitation) be changed so that students will be required to complete 42 points of core units and one other optional unit. The amended Rules are as shown in the attached (Attachment B).

_The Chair recommends that the Rules for the Bachelor of Exercise Rehabilitation and the Graduate Diploma in Science (Exercise Rehabilitation) be amended as follows:_

**(i) Bachelor of Exercise Rehabilitation**

...  
(a) all units in Table 9.2.18a (Bachelor of Exercise Rehabilitation Science Core Units)—12 42 points  
and  
(b) one unit chosen from Table 9.2.18b (Bachelor of Exercise Rehabilitation Science Options) — (6 points)

**(ii) Graduate Diploma in Science (Exercise Rehabilitation)**

...  
(a) all units in Table 9.5.2A(1) [Graduate Diploma in Science (Exercise Rehabilitation) Core Units]—12 42 points  
and  
(b) one unit chosen from Table 9.5.2A(2) [Graduate Diploma in Science (Exercise Rehabilitation) Options] — (6 points)
PART III
(Items for discussion and Decision)

8. PROPOSED CHANGES TO RULES FOR MASTER OF SCIENCE COMMUNICATION (51580), MASTER OF SCIENCE COMMUNICATION AND EDUCATION (52580), AND GRADUATE DIPLOMA IN SCIENCE COMMUNICATION (51340)

Dr Nancy Longnecker, the Co-ordinator of Science Communication programs, has proposed the following changes as outlined in her covering letter in Attachment C. The Faculty of Education supports and endorses the proposed changes:

(a) Master of Science Communication (51580)

Enrolments in this course commenced in Semester 1, 2008. Dr Longnecker advises that she has already received international applicants who are qualified school science teachers. In order to cater for this cohort, she has proposed that the Rules be amended to allow these international teachers to upgrade their discipline content knowledge by taking units in their discipline, improve their communication skills, take appropriate education units and do a science education/communication research project. Other amendments included the changing of two of the core coursework units to optional units and the inclusion of several other optional educational units as shown in Attachment Ca.

(b) Master of Science Communication and Education (52580)

The Master of Science Communication and Education was designed for BSc or BSc (Hons) graduates. However, Dr Longnecker advises that she has already had requests for information from domestic science teachers who have already completed the Graduate Diploma of Education, have teaching experience and, therefore, have completed one component of the course. To cater for this cohort, she has proposed that the Rules be amended as shown in Attachment Cb, i.e. to allow some flexibility for upgrading the discipline content knowledge and IT and communication skills for this group. Other changes proposed are the inclusion of several educational units, two human movement units and the granting of 48 points credit for those with the Diploma of Education.

(c) Graduate Diploma in Science Communication (51340)

The current Rules for the Graduate Diploma in Science Communication do not allow flexibility for the substitution of appropriate units. Dr Longnecker is proposing that the Rules be amended with the insertion of the substitution clause as shown in Attachment Cc. This will enable the Course Co-ordinator to recommend the appropriate substitution of one relevant unit and will replace the need for the granting of special approvals.

9. PROPOSED AMENDMENT TO THE RULES FOR MASTER OF SCIENCE AND TECHNOLOGY – INCLUSION OF SCIENCE COMMUNICATION OPTIONAL UNITS (52550)
REF: F6294, F15701

During the recent enrolment process, the School of Physics had requested changes to the Rules for the Master of Science and Technology (52550) to accommodate the enrolment of an international student in the Physics programme. The School felt that the core units (i.e. COMM7403 Science Communication - Community Presentations; ANHB8404 Investigative Techniques: Data Acquisition and Analysis; and ANHB8405 Investigative Techniques: Experimental Design and Bioethics) were not appropriate for Physics students. The School requested that the Rules be changed to recognize that the needs of physical science students differ from those in biological and human science. The School proposed that some of the units that they teach to honours students be specified in the Rules for students undertaking the honours program and had requested the substitution of CITs7200 Scientific Communication; Phys7415 Special Topics in Physics I; and Phys7416 Special Topics in Physics II, for the core units with immediate effect. This request was circulated to Faculty Board members and subsequently approved (R8/08).

Following this request, Dr Nancy Longnecker, the Co-ordinator of the Science Communication programme raised some concerns with the Head of the School of Physics in regards to the substitution of CITs7200 Scientific Communication for one of the core units namely, COMM7403 Science Communication - Community Presentations. This unit is of relevance to other students enrolled in the program and, therefore, it is proposed that the course Rules be amended to allow greater flexibility for
students who had completed previous studies as well as to enable students to have the option of taking CIT57200 as well as some other science communication units. It is proposed that the following units be added as optional units for the Master of Science and Technology as shown in attachment D:

COMM7701 Science Communication – Writing
COMM7702 Science Communication – Displays and Exhibits
COMM7703 Science and the Media
COMM7704 Science Communication – Learning Technologies

10. MASTER OF SCIENCE (HUMAN MOVEMENT) REF: F6294

The School of Sport Science, Exercise and Health has reviewed its course offerings and is proposing an amendment to the one-year Masters and the introduction of a two-year Masters degree.

(a) Amendment to Admission Rules for the 1 Year Master of Science (Human Movement)

In order to provide greater flexibility for students, the School has proposed the entry requirements for the current one year Masters be as follows:

... Admission

9.6.2.C.4 (1) The Faculty of Life and Physical Sciences may accept into the course for the degree an applicant who—

(a) has a relevant four-year degree bachelor's degree in Human Movement with first or second class honours from this University, or equivalent as recognised by the Faculty;

or

(b) has a Graduate Diploma in Science (Human Movement) from this University with an average mark of at least 65 per cent, or equivalent as recognised by the Faculty.

(2) Students with a Graduate Diploma in Education will only be admitted into the Masters by thesis and coursework provided the thesis topic relates to pedagogy.

The School is also proposing changes to the course structure as shown in attachment E.

(b) Proposed establishment of a Two-Year Master of Science (Human Movement)

The School is proposing the establishment of a two-year Master of Science (Human Movement). This course is aimed at international students to strengthen their discipline knowledge as well as to provide them with the necessary educational background to proceed to a research degree. The School expects an intake of around 5 – 15 students who are sponsored by their governments to achieve additional academic qualifications to impart to students at secondary and tertiary levels.

Checklists for the proposed two-year Masters course are attached (Attachment Ea). The draft Rules will be tabled at the meeting.

11. PREREQUISITES FOR ENTRY TO SCIENCE COURSES

The University has to provide information to TISC by the end of April this year for the document '2011 Admission Requirements for School Leavers', which is circulated to schools to enable school students to choose their subjects for years 11 and 12. The Pro Vice-Chancellor (Teaching & Learning), A/Prof. Jane Long, has set an absolute deadline of Monday 21st April for faculties to set prerequisites for their courses.

Attached are:
- 'The new school mathematics courses—A guide for universities', an outline provided by Associate Professor Ken Harrison (Murdoch), of the Maths Examining Panel, with a summary of content (Attachment F);
- Associate Professor Jane Long's memo of 7th April (Attachment G);
- current TEE prerequisites for UWA science courses (Attachment H);
- recommendation from the Chair of Chemistry with regard to chemistry prerequisites (Attachment I).
The current mathematics courses leading to TEE discrete maths and applicable maths are to be replaced from 2009 by a single course, 'Mathematics', terminating with MAT 3C/D. The view of the Curriculum Council and Maths Examining Panel is that MAT 3C/D corresponds approximately to TEE applicable maths, and that MAT 2C/D is the nearest equivalent to TEE discrete maths, but that the majority of discrete maths students going on to university will complete MAT 3A/B. A separate sequence, 'Specialist Mathematics' 3A/B & 3C/D, replaces TEE calculus.

Associate Professor Harrison states: "There will be 'bonuses' in TER calculations that will act as incentives for students to study mathematics at the highest level within their capabilities. Universities are encouraged to provide similar incentives by setting appropriate pre-requisites for some courses, and by recommending certain mathematics units as suitable preparation for others."

Associate Professor Long's memo recommends: "the equivalent to the current 'Any TEE mathematics' prerequisite should preferably be expressed as Mathematics 2C/D, with clear indication that Mathematics 3A/B is strongly recommended. Individual faculties that wish to set a higher-level prerequisite (eg: Mathematics 3A/B) may, however, do so."

The Faculty's Teaching & Learning Committee, after considerable debate about the desirability of taking this opportunity to improve the standard of maths for incoming science students, agreed to endorse Associate Professor Long's recommendation. In view of the short time available, it does not appear possible to put the matter to the Board of Studies in Science. The FNAS representative stated that the same recommendation would be put to a meeting of that Faculty.

The Faculty Board needs:
a) to set a maths prerequisite for its undergraduate courses in general;
b) to set maths prerequisites for any majors or programs that need a higher prerequisite than in (a) above;
c) to set other prerequisites as required, e.g. in physics and chemistry.

12. OTHER BUSINESS
NOTING OF DECISIONS TAKEN BY CIRCULATION TO
BOARD OF STUDIES IN SCIENCE DATED 2 APRIL 2008

The following items were circulated to Faculty Board members for consideration on 2 April 2008. Members were requested to advise the Administrative Officer if they had any objections to the circulated items being approved. As there were no objections from members, the items are hereby minuted accordingly.

Imelda Ooi
Administrative Officer

ITEMS FOR NOTING

The following items were noted by members:

a. Changes to Second Year Physics Major     Ref: F5075

As a result of changes to the second-year mathematics offerings in 2008 i.e. the introduction of new units namely, MATH2200 Applied Mathematics and MATH2020 Multivariate Calculus and Linear Algebra and the suppression of MATH2213, MATH2214 and MATH2223, the School of Physics had requested to modify its second-year offerings in order to accommodate the changes in the mathematics offerings.

It had been resolved (R3/07), at the Life and Physical Sciences Faculty Board meeting on 18 September 2007 that the following be endorsed from 2008 onwards –

(i) Deletion of PHYS2211 Astronomy and Computational Physics;
(ii) Introduction of a new unit - PHYS2220 Atoms, Nuclei, Particles and Galaxies; and
(iii) Moving PHYS2212 Physics of Macroscopic Systems from second semester to first semester

b. BSc (Psychology) – Inclusion of SCIE1106 Molecular Biology of the Cell as an Optional Unit     Ref:

In order to provide greater flexibility for students, the School of Psychology had requested with immediate effect, that in the Rules for BSc (Psychology) programme, the Psychology Level 1 options under Group A be amended to include SCIE1106 Molecular Biology of the Cell (6 points) taken in combination with one of the following biology units – ANHB1101 Human Biology I, ANHB1102 Human Biology II, BIOL1130 Core Concepts in Biology and BIOL1131 Plant and Animal Biology. This had been approved (R2/08), at the Life and Physical Sciences Faculty Board meeting on 21 January 2008.

c. Minor Change to Rules For BSc (Nanotechnology)     Ref: F6294

Currently, the Mathematics prerequisite units for PHYS2202 are: MATH1010, MATH1020 and MATH2200. In the BSc (Nanotechnology), students are only required to complete MATH2209 and MATH2020. This meant that under the current prerequisite Rules, students would not be eligible to enrol in PHYS2202. To rectify the problem, the Faculty had consulted the School of Mathematics & Statistics, School of Physics and the Co-ordinator of the BSc (Nanotechnology) programme, to find a solution to enable students to enrol in PHYS2202. The School of Physics had agreed that the prerequisites for PHYS2202 be changed to:

"must have passed (MATH1010, MATH1020, PHYS1101, PHYS1102) and (MATH2200, PHYS2201) or (PHYS2201, SCIE1109, MATH2209)"

It had been resolved (R8/08), at the Life and Physical Sciences Faculty Board meeting on 25 February 2008, that the Rules for the BSc (Nanotechnology) programme be amended with immediate effect so that students were required to complete: either (CHEM2230 Nanochemistry, MATH2020, MATH2209) or (MATH2020, MATH2209, MATH2200).
d. **Proposed Changes to the Bachelor of Computer Science, Bachelor of Computer and Mathematical Sciences and Associated Combined Courses** Ref:

In response to a review in late 2006, the School of Computer Science and Software Engineering had proposed changes to its Bachelor of Computer Science, Bachelor of Computer and Mathematical Sciences and associated combined courses for the two degrees. The changes involved the introduction of a new additional major called ‘Software Management’ as well as some changes to units in existing majors. For the combined Bachelor of Computer Science/Bachelor of Science, the changes would apply to the Bachelor of Computer Science component only.

**ITEMS FOR THE ATTENTION OF ACADEMIC SECRETARIAT**

1. **RESCISSION OF BSc (SCIENCE EDUCATION) REF: F8480**

   Professor Grady Venville had advised that the BSc (Science Education) would not be continuing in 2008 and beyond as enrolments had been too low for it to be viable.

   **RESOLVED – 1**

   that the BSc (Science Education) programme be withdrawn with immediate effect.

2. **GRADUATE OUTCOMES REF: F5026**

   **RESOLVED – 2**

   that the graduate outcomes for the BSc (Advanced Science), BSc (Biophysical Science), BSc (Green Chemistry), BSc (Physical Science), BSc (Science Communication), BSc (Science Education) and BSc (Scientific Computation) be approved subject to amendments being made to the outcomes for the following programmes as suggested by the Academic Student Adviser, Dr Jane Emberson:

   **BSc (Advanced Science)**

   the first dot-point to be changed to 'an in-depth understanding of two scientific subjects' as this program now requires completion of two science majors.

   **BSc (Biophysical Science)**

   to add an outcome to reflect that students can complete this program with a major in either biophysics or chemistry (or both).

   **BSc (Science Communication)**

   outcomes to include 'an in-depth understanding of one scientific discipline' and 'a broad understanding of related fields'.

   **BSc (Science Education)**

   no outcomes to be recorded as the programme had been deleted from 2008 onwards.

   It should be noted that as all the programme outcomes for the Faculty of Life and Physical Sciences had now been submitted, acceptance of the graduate outcomes for the individual programmes would be provisional on reviewing them as a whole set.

3. **WITHDRAWAL OF BIOC2250 BIOCHEMISTRY REF: F5075**

   The School of Biomolecular, Biomedical and Chemical Sciences had advised that due to the restructure of degree programmes in the Faculty of Natural and Agricultural Sciences, the requirement for students to take BIOC2250 in the BSc (Animal Science) programme had been modified. This had led to a steady decline in the number of students taking the unit. To this end, the School had requested that the unit be suppressed with immediate effect and that it be withdrawn from 2009 onwards, as it is no longer viable to run the unit.

   **RESOLVED – 3**

   that BIOC2250 Biochemistry offered in the BSc (Animal Science) programme, be suppressed with immediate effect and be withdrawn from 2009 onwards.
4. PROPOSED CHANGE TO THE ADMISSION RULES FOR THE HONOURS PROGRAM IN PSYCHOLOGY REF:

In December 2007, the Faculty had sought and obtained approval from the Chair of Academic Board for a waiver of the admission Rules for the Honours program in Psychology and to adopt the Faculty minimum for entry in 2008, i.e. a 65% average in the third-year units of the major sequence.

Currently, Rule 9.2.8A.46 states as follows:–

Students must have completed —

(a) a major sequence in Psychology, as defined under Rule 9.2.6.34A, with an average mark of at least 65 per cent in the Level 3 units (48 points), including a grade of distinction or better in at least four units, which must include either PSYC3301 Psychological Research Methods: Design and Analysis or PSYC3302 Psychological Measurement and its Application, and either PSYC3310 Psychology: Specialist Research Topics or PSYC3311 Psychology: Specialist Research Topics; or

(b) equivalent as recognised by the Faculty.

The School of Psychology had set their 2008 admission requirements at a higher level to ensure that the number of students admitted would not exceed the capacity for supervision. However, the School found that it had the capacity to admit a further eight students in the 2008 intake. The students had not met the specified admission requirements in (a) above but had met the Faculty’s minimum requirements.

The School of Psychology had requested that the Rules for entry to the Honours program in Psychology for 2009 be specified as –

“Entry to Honours in Psychology requires a minimum average mark in level 3 psychology units of 65%. Entry to this program is quota restricted; the number of places available is usually 70 but may vary with staff availability. Students who obtain distinctions or better in PSYC3301, PSYC3302, PSYC3310 and/or PSYC3311 will enhance their position in the quota selection rankings.”

The School felt that the proposed change to the Rules and the application of a quota would provide flexibility for the School to admit as many students as they can accommodate in a given year.

RESOLVED – 4
that entry to the honours programme in Psychology for 2009 be amended to:
(i) students must have achieved an average of 65% in the third-year units of the major sequence in Psychology; and
(ii) entry to the programme is quota restricted.

5. REQUEST TO CHANGE TITLE OF UNIT ANTH2224 AUSTRALIAN ABORIGINAL ART AND SOCIETY REF:

The Discipline of Anthropology and Sociology had requested to change the title of ANTH2224 Australian Aboriginal Art and Society to ‘Aboriginal Art: Production of Meaning’ as this better reflected the content and purpose of the course.

RESOLVED – 5
that the request to change the title of ANTH2224 Australian Aboriginal Art and Society to ‘Aboriginal Art: Production of Meaning’ be endorsed.

6. PROPOSED COMBINED BACHELOR OF SCIENCE AND BACHELOR OF MUSIC REF;

The Deputy Head of the School of Music and the Manager, Student Affairs, Faculty of Arts, Humanities and Social Sciences, had discussions with the Academic Student Adviser, Dr Jane Emberson, regarding the proposal for a combined Bachelor of Music and Bachelor of Science. The proposal was the outcome of the School of Music Review (2006 – 2007) and requests from both current and prospective students at UWA EXPO.

The academic objectives of the proposed combined course were to achieve proficiency in studies relevant to the two degree courses and possible interfaces such as music technology, acoustics studies etc.
The proposed structure would comprise a total number of 258 – 264 points required for completion, made up of Bachelor of Music (144 points); and BSc (114 – 120 points). Several students were undertaking the first year Bachelor of Music in 2008 with a view to transferring to the combined course in 2009.

RESOLVED – 6
that the proposal for a combined Bachelor of Music and Bachelor of Science in 2009 be endorsed, subject to approval by Academic Council and final drafting of the Rules by Legislative Committee.

7. PROPOSAL FOR THE ADMINISTRATION OF BSc HONOURS OFFSHORE REF:

Members had before them a proposal prepared by Dr Mark Cregan for the administration of BSc Honours offshore for those students completing at PSB Academy at the end of April this year. A number of them had indicated that they would be interested in taking honours offshore, whilst others were quite interested to come to Perth. About ten students might become eligible for honours, and of these somewhere between three and five might want to take honours in Singapore.

A working party had been formed including all the honours supervisors for the programmes in the School of Biomolecular, Biomedical and Chemical Sciences from which the students would be graduating. They had agreed that offshore honours would be possible but that they would want the students to come onshore for their assessment. They would come mid-year when the colleges were relatively empty, so accommodation should not be a problem. The other limiting factor was that not all projects would lend themselves to being supervised offshore and so the numbers of such projects on offer were likely to be small. If the offshore projects on offer were less than the number of students wanting to take them, offers would be made on academic merit (i.e. the top five students wanting offshore honours would get the five offshore projects on offer).

Yet to be determined was the fee structure for the Singapore-based students. Due to the different environment under which the Singapore-based Honours students would be operating (i.e. the perceived value in the Singapore market for an Honours degree, the expense of the required additional travel to Perth for assessment, the high value of the Australian dollar, and the use of non-UWA infrastructure offshore), it had been proposed that the fee for the Singapore-based Honours programme be set at AUD$15,000 (approx SGD$19,500). This fee would retain a relative equity with onshore international student fees where the average fee is currently AUD$24,200.

RESOLVED – 7
that the proposal for the administration of BSc Honours offshore be endorsed and forwarded to the Faculty Board of Life and Physical Sciences for approval.
7 April 2008

Ms Jenny Gamble
Faculty Manager
Faculty of Life and Physical Sciences
M011

Dear Jenny

Re: BSc Exercise Rehabilitation

As per our letter dated 23 January 2008 requesting a rule waiver for the Bachelor of Exercise Rehabilitation and we now formally request the following changes to take effect in 2009:

Course Structure: (Page 240 Undergraduate Handbook)

9.2.18.4(1) The course consists of units to a minimum total of 48 points comprising –

(a) all units in Table 9.2.18a (Bachelor of Exercise Rehabilitation Science Core units) – 42 points

and

(b) units to a minimum value of 6 points from Table 9.2.18(b) (Bachelor of Exercise Rehabilitation Science Options) – 6 points

Table 9.2.18a – Bachelor of Exercise Rehabilitation Science Options

All units have a value of six points unless otherwise stated.

S1 HMES7645 Workplace Injury Prevention and Management
S1 HMES7646 Exercise Rehabilitation for Chronic and Complex Conditions
S1 HMES7651 Musculoskeletal Rehabilitation
S1 HMES7691 Research Practicum I
S2 HMES7643 Cardiac Rehabilitation
S2 HMES7664 Exercise and Health Psychology
S2 HMES7692 Research Practicum II
9.2.18 BACHELOR OF EXERCISE REHABILITATION SCIENCE (51150)

Applicability of the University General Rules for Academic Courses
9.2.18.1 The rules in 1.1 and 1.2 of the University General Rules for Academic Courses in this handbook apply to the course for the Bachelor of Exercise Rehabilitation Science pass degree except as set out in the rules which follow.

Applicability of the Science Faculties' General Provisions
9.2.18.2 The Science Faculties' General Provisions in 9.2.1 apply to the course.

Admission
9.2.18.3 The Faculty of Life and Physical Sciences may accept into the course for the Bachelor of Exercise Rehabilitation Science an applicant who—

(a)(i) has completed the requirements for the degree of Bachelor of Science (Exercise and Health) of this University with a weighted average of at least 60 per cent over the Level 3 units in the course;

and

(ii) has completed the following:

S1 HMES3301 Exercise Prescription for Health and Fitness (6 points)
S2 HMES3389 Exercise Rehabilitation (6 points)
S1 & S2 HMES3390 Professional Practice Part 1 (3 points)
S1 & S2 HMES3391 Professional Practice Part 2 (3 points)

or

(b) has qualifications or experience recognised by the Faculty as equivalent to those described in (a).

Course Structure
9.2.18.4(1) The course consists of units to a minimum total value of 48 points comprising—

(a) all units in Table 9.2.18a (Bachelor of Exercise Rehabilitation Science Core Units)—12-42 points

and

(b) one unit chosen from Table 9.2.18b (Bachelor of Exercise Rehabilitation Science Options)—(6 points)

(b) units to a minimum value of 18 points and a maximum value of 24 points from Group A in Table 9.2.18b (Bachelor of Exercise Rehabilitation Science Options);

and

(e) units to a minimum value of 12 points and a maximum value of 18 points from Group B in Table 9.2.18b (Bachelor of Exercise Rehabilitation Science Options).

(2) The Faculty, on the recommendation of the Head of the School of Sport Science, Exercise and Health may permit a student to substitute for one unit from Group B in Table 9.2.18b (Bachelor of Exercise Rehabilitation Science Options) other relevant units offered in the University or in any comparable course in another recognised institution.
**Time Limits**
9.2.18.5(1) A student must complete all requirements for the degree—

(a) within ten calendar years from first enrolment in a Level 1 unit; and
(b) within four years from first enrolment in a Level 3 unit.

(2) In exceptional circumstances, the Faculty may extend the time limits specified in (1).

**Award of Degree**
9.2.18.6 The degree is conferred as a pass degree only.

---

**Table 9.2.18a—Bachelor of Exercise Rehabilitation Science Core Units**
All units have a value of six points unless otherwise stated.

<table>
<thead>
<tr>
<th>Level</th>
<th>Code</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>S1</td>
<td>HMES7691</td>
<td>Research Practicum I</td>
</tr>
<tr>
<td>S2</td>
<td>HMES7692</td>
<td>Research Practicum II</td>
</tr>
<tr>
<td>S1</td>
<td>HMES7643</td>
<td>Cardiac Rehabilitation</td>
</tr>
<tr>
<td>S1</td>
<td>HMES7645</td>
<td>Workplace Injury Prevention and Management</td>
</tr>
<tr>
<td>S1</td>
<td>HMES7646</td>
<td>Exercise Rehabilitation for Chronic and Complex Conditions</td>
</tr>
<tr>
<td>S2</td>
<td>HMES7651</td>
<td>Musculoskeletal Rehabilitation</td>
</tr>
<tr>
<td>S2</td>
<td>HMES7664</td>
<td>Exercise and Health Psychology</td>
</tr>
</tbody>
</table>

---

**Table 9.2.18b—Bachelor of Exercise Rehabilitation Science Options**
All units have a value of six points unless otherwise stated.

**Group A**

<table>
<thead>
<tr>
<th>Level</th>
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</tr>
</thead>
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<tr>
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<td>HMES7643</td>
<td>Cardiac Rehabilitation</td>
</tr>
<tr>
<td>S1</td>
<td>HMES7645</td>
<td>Workplace Injury Prevention and Management</td>
</tr>
<tr>
<td>S1</td>
<td>HMES7646</td>
<td>Exercise Rehabilitation for Chronic and Complex Conditions</td>
</tr>
<tr>
<td>S2</td>
<td>HMES7651</td>
<td>Musculoskeletal Rehabilitation</td>
</tr>
<tr>
<td>S2</td>
<td>HMES7664</td>
<td>Exercise and Health Psychology</td>
</tr>
</tbody>
</table>

**Group B**

<table>
<thead>
<tr>
<th>Level</th>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>S1</td>
<td>HMES7602</td>
<td>Research Methods in HMES</td>
</tr>
<tr>
<td>S1</td>
<td>HMES7603</td>
<td>Data Analysis in HMES</td>
</tr>
<tr>
<td>S2</td>
<td>HMES7634</td>
<td>Advanced Neuromuscular Biomechanics</td>
</tr>
<tr>
<td>S2</td>
<td>HMES7654</td>
<td>Advanced Concepts in Motor Control and Learning</td>
</tr>
<tr>
<td>S2</td>
<td>HMES7685</td>
<td>Work Site Health Promotion</td>
</tr>
</tbody>
</table>
7 April 2008

Ms Jenny Gamble
Faculty Manager
Faculty of Life and Physical Sciences
M011

Dear Jenny

Re: Graduate Diploma in Science (Exercise Rehabilitation)

As per our letter dated 23 January 2008 requesting a rule waiver for the Graduate Diploma in Science (Exercise Rehabilitation) and we now formally request the following changes to take effect in 2009:

Course Structure: (Page 262-263 Postgraduate Handbook)

9.2.18.4(1) The course consists of units to a minimum total of 48 points comprising –

(a) all units in Table 9.5.2A(1) [Graduate Diploma in Science (Exercise Rehabilitation) Core units] – 42 points

and

(b) units to a minimum value of 6 points from Table 9.5.2A(2) [Graduate Diploma of Science (Exercise Rehabilitation) Options] – 6 points

(2) Students admitted with the equivalent of only 12 points from the units listed under 9.5.2A.4 above may be required to enroll in HMES7606 Special Topics on advice from the course co-ordinator.

(3) A student wishing to progress to a research program within the Master of Science taken by way of research may complete HMES7602 Research methods as part of the diploma program.

(4) The Dean of the Faculty of Life and Physical Sciences, on the recommendation of the Head of School of Sport Science, Exercise and Health may permit a student to substitute for one unit in (1)(b) one other relevant unit to the value of six points, offered in this University or in any comparable course in another recognized institution.

Table 9.5.2A(1) – Graduate Diploma in Science (Exercise Rehabilitation) Core Units

All units have a value of six points unless otherwise stated.
9.5.2A Graduate Diploma in Science (Exercise Rehabilitation) (50300) (PG-EXRSC)

Applicability of the University General Rules for Academic Courses
9.5.2A.1 The rules in 1.1 and 1.2 of the University General Rules for Academic Courses in this handbook apply to the Graduate Diploma in Science (Exercise Rehabilitation) except as set out in the rules which follow.

Applicability of the Science Faculties' General Provisions
9.5.2A.2 The Science Faculties' General Provisions for Graduate Diplomas in 9.5.1 apply to the course.

Applicability of the Faculty General Provisions
9.5.2A.3 The Faculty of Life and Physical Sciences' General Provisions for the Graduate Diploma in Science (50300) in 9.5.2 apply to the course.

Admission
9.5.2A.4 The Faculty of Life and Physical Sciences may accept into the course for the diploma an applicant who has a bachelor's degree with a major in Human Movement from this University, with a weighted average of at least 60 per cent and which includes units from the following list to the value of at least 12 points, or equivalent as recognised by the Faculty:

- HMES3301 Exercise Prescription for Health and Fitness
- HMES3389 Exercise Rehabilitation
- HMES3390 Professional Practice Part 1 (3 points)
- HMES3391 Professional Practice Part 2 (3 points)

Course Structure
9.5.2A.5(1) The course consists of units to a total value of 48 points comprising—

(a) all units in Table 9.5.2A(1) [Graduate Diploma in Science (Exercise Rehabilitation) Core Units] — 42.42 points

and

(b) one unit chosen from Table 9.5.2A(2) [Graduate Diploma in Science (Exercise Rehabilitation) Options] — (6 points)

(b) units to a minimum value of 18 points and a maximum value of 24 points from Group A in Table 9.5.2A(2) [Graduate Diploma in Science (Exercise Rehabilitation) Options];

either

(c) subject to (2), units to make up the remaining number of points required chosen from Group B in Table 9.5.2A(2) [Graduate Diploma in Science (Exercise Rehabilitation) Options] — 12 or 18 points.

(2) Students admitted with the equivalent of only 12 points from the units listed under 9.5.2A.4 above may be required to enrol in HMES7606 Special Topics on advice from the course co-ordinator.

(3) A student wishing to progress to a research programme within the Master of Science taken by way of research must complete HMES7602 Research Methods in HMES and HMES7603 Data Analysis in HMES as part of the diploma programme.

(4) The Dean of the Faculty of Life and Physical Sciences, on the recommendation of the Head of the School of Sport Science, Exercise and Health may permit a student to substitute
for one unit in either (1)(b) or (c)—one other relevant unit to the value of six points, offered in this University or in any comparable course in another recognised institution.

Table 9.5.2A(1)—Graduate Diploma in Science (Exercise Rehabilitation) Core Units
All units have a value of six points unless otherwise stated.

- HMES7691 Research Practicum I
- HMES7692 Research Practicum II
- HMES7643 Cardiac Rehabilitation
- HMES7645 Workplace Injury Prevention and Management
- HMES7646 Exercise Rehabilitation for Chronic and Complex Conditions
- HMES7651 Musculoskeletal Rehabilitation
- HMES7664 Exercise and Health Psychology

Table 9.5.2A(2)—Graduate Diploma in Science (Exercise Rehabilitation) Options
All units have a value of six points unless otherwise stated.

Group A
- HMES7643 Cardiac Rehabilitation
- HMES7645 Workplace Injury Prevention and Management
- HMES7646 Exercise Rehabilitation for Chronic and Complex Conditions
- HMES7651 Musculoskeletal Rehabilitation
- HMES7664 Exercise and Health Psychology

Group B
- HMES7602 Research Methods in HMES
- HMES7603 Data Analysis in HMES
- HMES7606 Special Topics
- HMES7634 Advanced Neuromuscular Biomechanics
- HMES7654 Advanced Concepts in Motor Control and Learning
- HMES7685 Work Site Health Promotion
Prof George Stewart  
Dean, Faculty of Life and Physical Sciences  
Chair, Faculty Board  

14 February 2008

Dear George,

Re: Amended rules for the Master of Science Communication (51580)  
Master of Science Communication and Education (52580)  
Graduate Diploma in Science Communication (51340)

I request that the attached amendments to the rules for these courses be considered at the next meeting of the Faculty Board. The rationale for the proposed changes follows.

51580
This course is available for the first time in Semester 1, 2008. We have already received international applicants who are qualified school science teachers. The amended rules for the Master of Science Communication will allow these international teachers to upgrade their discipline content knowledge by taking units in their discipline, improve their communication skills, take appropriate education units and do a science education/communication research project.

52580
The Master of Science Communication and Education was designed for BSc or BSc (Hons) graduates. I have already had requests for information from Australian classroom teachers. The amended rules will allow flexibility so that existing teachers could get credit for an Australian Graduate Diploma of Education, upgrade their discipline content knowledge and IT and communication skills.

51340
The current rules of the Graduate Diploma in Science Communication allow no flexibility for substitution of appropriate units which are not listed in the table of Science Communication Options. The amendment allows flexibility for the course coordinator to recommend appropriate substitution of one relevant unit without requiring the added work of special approval.

I am happy to provide any additional information that might be helpful or necessary.

Sincerely,

Dr Nancy Longnecker  
Coordinator, Science Communication Program

Enclosed are amended rules for:
- Master of Science Communication (51580)
- Master of Science Communication and Education (52580)
- Graduate Diploma in Science Communication (51340)
MASTER OF SCIENCE COMMUNICATION (51580)
Applicability of the University General Rules for Academic Courses

9.6.7A1 The rules in 1.1 and 1.2 of the University General Rules for Academic Courses in this handbook apply to the Master of Science Communication except as set out in the rules which follow.

Applicability of the Science Faculties' General Provisions

9.6.7A.2 The Science Faculties' General Provisions in 9.5.1 apply to the course.

Articulation
9.6.7A.3 The Graduate Diploma in Science Communication articulates with the course.

Admission

9.6.7A.4 The Faculty of Life and Physical Sciences may accept as a candidate for the Master of Science Communication an applicant who has the degree of Bachelor of Science of this University, or equivalent as recognised by the Faculty.

COURSE STRUCTURE
9.6.7A.5 (1) The Master of Science Communication consists of units to a value of 96 points comprising—

(a) all units in Table 9.6.7A (1) (Master of Science Communication Course— Core Units)—5466 points

(b) units to the value of 24 points from Groups A and B in Table 9.6.7A(2) (Master of Science Communication Options), including at least 12 points from Group A—24 points.

(c) one unit from Group C in Table 9.6.7A(2) (Master of Science Communication Options)—6 points.

(d) two units chosen in consultation with the course coordinator from the units available within the University (12 points).

(2) The Faculty, on the recommendation of the course coordinator, may permit a student to substitute for a unit referred to in (1)(b) one other relevant unit of equivalent value offered in this University or in any comparable course in another recognised institution.

CREDIT
9.6.7A.6 Within the limits set under University General Rule 1.2.1.12—

(a) students who hold the degree of Bachelor of Science with Honours with a grade of 2A or higher, or equivalent, with a dissertation in science communication or a relevant subject area can receive credit of 48 points towards the research component of the course;

(b) students who have completed the Graduate Diploma in Science Communication receive credit of 48 points towards the coursework component of the course.

Award of Graduate Diploma in Science Communication
9.6.7A.7 A student who withdraws from the Master of Science Communication before qualifying for the degree but after satisfying the requirements for the Graduate Diploma in Science Communication may apply to the Faculty to take out the diploma.
Table 9.6.7A(1)—Master of Science Communication Core Units

All units have a value of 6 points unless otherwise stated.

**Group A—Coursework Units**
- COMM3303 Science Communication for Change in Industry and Community
- COMM7403 Science Communication – Community Presentations
- COMM7701 Science Communication – Writing
- COMM7702 Science Communication—Displays and Exhibits

**Group B—Research Units**
- COMM7402 Science Communication Specialist Research Topics
- COMM8801 Science Communication Dissertation (36 points)

Table 9.6.7A(2)—Master of Science Communication Options

All units have a value of 6 points unless otherwise stated.

**Group A**
- COMM3317 Science Communication Practicum Part 1 (3 pts)
- COMM3318 Science Communication Practicum Part 2 (3 pts)
- COMM3303 Science Communication for Change in Industry and Community
- COMM3322 Science Performance
- COMM7702 Science Communication – Displays and Exhibits
- COMM7703 Science and the Media
- COMM7704 Learning Technologies
- EDUC8465 Science Curriculum I
- EDUC8485 Teaching and Learning Perspectives

1Parts 1 and 2 must be completed to fulfill the requirements of the unit.

**Group B**
- ANTH2239 Anthropology of Media
- ASIA2212 Chinese Media and Society
- EBUS2207 Electronic Communication Strategies
- EDUC8411 Understanding Contemporary Education
- EDUC8451 Teaching and Learning with Information and Communication Technology
- EDUC8462 Mathematics Curriculum I
- EDUC8464 Information and Communication Technology Curriculum I
- EDUC8475 Science Curriculum II
- EDUC8635 Contemporary Issues in Science Education
- EDUC8636 Assessment and Measurement
- ENGL2216 Ecotexts: Nature/Writing/Technology
- EURO2212 Communication and Culture – Survey
- HMES8492 Health Promotion in the Schools
- INMT2234 Information Systems
- MKTG2203 Marketing Management
- MKTG2204 Consumer Behaviour
- MKTG2238 Advertising and Promotion
- PHIL2270 Philosophy of Science
- POLS2231 Politics of the Mass Media
- VISU2214 Aesthetic Crossovers of Art and Science
- VISU2249 Art and Life Manipulation
Groups C—Research Options

ANHB8503 Research Methods in Anatomy and Human Biology (12 pts)
ANTH2237 Ethnographic Research Methods
EDUC8631 Approaches to Research
HMES7602 Research Methods in HMES
MGMT8792 Qualitative Methods in Business Research
MGMT8793 Quantitative Methods in Business Research
MKTG3305 Marketing Research
POLS2230 Introduction to Social Research Methods
POLS3330 Introduction to Social Research Methods (12 pts)
PSYC2203 Psychological Research Methods
PSYC8510 Evaluation and Research Methodology
PUBH2205 Health Research Design
PUBH8766 Health Survey Research Methods

¹Some units in Groups B and C have prerequisites or require special permission.
MASTER OF SCIENCE COMMUNICATION AND EDUCATION (52580)

Applicability of the University General Rules for Academic Courses
9.6.7B.1 The rules in 1.1 and 1.2 of the University General Rules for Academic Courses in this handbook apply to the Master of Science Communication and Education except as set out in the rules which follow. Students should seek advice from a course advisor before enrolling.

Applicability of the Science Faculties’ General Provisions
9.6.7B.2 The Science Faculties’ General Provisions in 9.5.1 apply to the course.

Applicability of the Education Faculties’ General Provisions
Professional Requirements
9.6.7B.3 All students enrolled in the Master of Science Communication and Education must comply with the Professional Requirements as outlined in the Faculty Policy and Guidelines in the Faculty of Education section of the 2008 Postgraduate Handbook.

Admission
9.6.7B.5 The Faculty of Life and Physical Sciences may accept as a candidate for the Master of Science Communication and Education an applicant who has the degree of Bachelor of Science of this University, or equivalent as recognised by the Faculty of Life and Physical Sciences and the Faculty of Education.

Applicants with qualifications from overseas institutions where English is not the medium of instruction must provide evidence of English language competency equivalent to an IELTS score of 7.5 overall with no band lower than 7.0. Applicants whose first language is not English, but who hold degrees from institutions where English is the medium of instruction, may be required to provide further evidence of English language competency.

Course Structure
9.6.7B.6 (1) The Master of Science Communication and Education consists of units to a value of 96 points comprising—

(a) all units in Table 9.6.7B(1) [Master of Science Communication and Education Core Units]—66 points
and

(b) units to the value of 12 points in Group A in Table 9.6.7B(2) [Master of Science Communication and Education Options]—12 points
and

(c) one unit from Group B in Table 9.6.7B(2) [Master of Science Communication and Education Options]—6 points
and

(d) one unit chosen from Group C in Table 9.6.7B(2) [Master of Science Communication and Education Options]—6 points.
and

(e) one unit chosen from Group B or Group C in Table 9.6.7B(2) [Master of Science Communication and Education Options]—6 points:
chosen in consultation with the course coordinator from the units available within the University (6 points).

(2) The Faculty, on the recommendation of the course coordinator, may permit a student to substitute for a unit referred to in (1)(b) one other relevant unit of equivalent value offered in this University or in any comparable course in another recognised institution.

(2) All students are required to pass a test of English-language skills— the Teachers’ Language Competency Test.

Failure to Pass a School Experience (Teaching Practicum) Unit
9.6.7B.7(1) Students who do not pass a School Experience (teaching practicum) unit will have their case considered by a committee comprising the following members of the Faculty—

(a) the Dean of the Faculty of Education;
(b) the Director of Teaching; and
(c) the Dean of the Faculty of Life and Physical Science.

(2) The committee will take into account all relevant information and recommend to the Faculty that the
student—

(a) repeat the teaching practicum; or
(b) repeat the teaching practicum following satisfactory prior completion of specified additional relevant work; or
(c) not be permitted to re-enrol in the course.

(3) If the Faculties permit a student to repeat a teaching practicum, it will determine whether the practicum may be repeated in the same or a subsequent year, taking into consideration the student’s overall performance in the course.

Credit
Students who have completed the Graduate Diploma in Education or equivalent can apply to receive credit of 48 points towards the course.

Satisfactory Progress
9.6.7B.8 To make satisfactory progress in a calendar year students must, in addition to meeting the requirements of University General Rule 1.2.1.29(1)(a), pass all School Experience (teaching practicum) units in which they are enrolled.

[Approved addition to University General Rule 1.2.1.29(1)(a)]

Progress Status
9.6.7B.9 (1) Students who pass the School Experience (teaching practicum) unit(s) but do not pass units to a value of at least half the total points value of units in which they are enrolled are assigned the progress status of ‘Suspended’ by the Faculty.

(2) Students who pass units to a value of at least half the total points value of units for which they are enrolled but who fail a School Experience (teaching practicum) unit are, if the Committee described in Rule 9.6.7B.7 so recommends under that rule, assigned the progress status of ‘Excluded’ by the Faculty.

(3) Students who do not pass units to a value of at least half the total points value of units for which they are enrolled and who fail a School Experience (teaching practicum) unit are assigned the progress status of ‘Excluded’ by the Faculty.

(4) Students who fail to make satisfactory progress twice are assigned the progress status of ‘Excluded’ by the Faculty.
### Table 9.6.7B(1) — Master of Science Communication and Education Core Units
All units have a value of 6 points unless otherwise stated.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM7403</td>
<td>Science Communication – Community Presentations</td>
</tr>
<tr>
<td>COMM7701</td>
<td>Science Communication – Writing</td>
</tr>
<tr>
<td>COMM7702</td>
<td>Science Communication – Displays and Exhibits</td>
</tr>
<tr>
<td>COMM7704</td>
<td>Science Communication – Learning Technologies</td>
</tr>
<tr>
<td>EDUC8429</td>
<td>Aboriginal Education (4 points)</td>
</tr>
<tr>
<td>EDUC8430</td>
<td>Inclusive Classrooms (4 points)</td>
</tr>
<tr>
<td>EDUC8431</td>
<td>Teaching in Context (4 points)</td>
</tr>
<tr>
<td>EDUC8465</td>
<td>Science Curriculum I</td>
</tr>
<tr>
<td>EDUC8476</td>
<td>Science Curriculum II</td>
</tr>
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<td>EDUC8481</td>
<td>School Experience I</td>
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<tr>
<td>EDUC8482</td>
<td>School Experience II</td>
</tr>
<tr>
<td>EDUC8485</td>
<td>Teaching and Learning Perspectives</td>
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### Table 9.6.7B(2) — Master of Science Communication and Education Options
All units have a value of 6 points unless otherwise stated.

#### Group A
<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>COMM3317</td>
<td>Science Communication Practicum Part I (3 pts)</td>
</tr>
<tr>
<td>COMM3318</td>
<td>Science Communication Practicum Part 2 (3 pts)</td>
</tr>
<tr>
<td>COMM3322</td>
<td>Science Performance</td>
</tr>
<tr>
<td>COMM3303</td>
<td>Science Communication for Change in Industry and Community</td>
</tr>
<tr>
<td>COMM7402</td>
<td>Science Communication – Specialist Research Topics</td>
</tr>
<tr>
<td>COMM7703</td>
<td>Science and the Media</td>
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<td>PHIL2270</td>
<td>Philosophy of Science</td>
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#### Group B
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<td>EDUC8460</td>
<td>English Curriculum I</td>
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<td>EDUC8461</td>
<td>LOTE Curriculum I</td>
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<td>EDUC8462</td>
<td>Mathematics Curriculum I</td>
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<td>EDUC8463</td>
<td>Career Education Curriculum I</td>
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<tr>
<td>EDUC8464</td>
<td>Information and Communication Technology Curriculum I</td>
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<tr>
<td>EDUC8466</td>
<td>Society and the Environment Curriculum I</td>
</tr>
<tr>
<td>EDUC8467</td>
<td>TESOL Curriculum I</td>
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<td>Special Education Curriculum I</td>
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#### Group C
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<tr>
<td>EDUC8404</td>
<td>Educational Linguistics</td>
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<tr>
<td>EDUC8411</td>
<td>Understanding Contemporary Education</td>
</tr>
<tr>
<td>EDUC8430</td>
<td>Inclusive Classrooms</td>
</tr>
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<td>Teaching in Context</td>
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<td>EDUC8451</td>
<td>Teaching and Learning with Information and Communication Technology</td>
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<td>Learning Difficulties</td>
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<td>EDUC8485</td>
<td>Teaching and Learning Perspectives</td>
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<td>Creating Thinking Communities</td>
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<td>EDUC8492</td>
<td>Behaviour Management</td>
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<td>Approaches to Student Assessment</td>
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<td>EDUC8607</td>
<td>Ethics and Values in Education</td>
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<tr>
<td>EDUC8608</td>
<td>e-learning</td>
</tr>
<tr>
<td>EDUC8618</td>
<td>Information and Communication Technology in Teaching and Learning</td>
</tr>
<tr>
<td>EDUC8635</td>
<td>Contemporary Issues in Science Education</td>
</tr>
<tr>
<td>EDUC8641</td>
<td>History of Education</td>
</tr>
<tr>
<td>HMES8491</td>
<td>Health Education</td>
</tr>
<tr>
<td>HMES8492</td>
<td>Health Promotion in the Schools</td>
</tr>
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</table>
9.5.11 GRADUATE DIPLOMA IN SCIENCE COMMUNICATION (51340)

Applicability of the University General Rules for Academic Courses
9.5.11.1 The rules in 1.1 and 1.2 of the University General Rules for Academic Courses in this handbook apply to the Graduate Diploma in Science Communication except as set out in the rules which follow.

Applicability of the Science Faculties' General Provisions
9.5.11.2 The Science Faculties' General Provisions in 9.5.1 apply to the course.

Articulation
9.5.11.3 The course articulates with the Master of Science Communication.

Admission
9.5.11.4 The Faculty of Life and Physical Sciences may accept into the course for the Graduate Diploma in Science Communication an applicant who has the degree of Bachelor of Science of this University, or equivalent as recognised by the Faculty.

Course Structure
9.5.11.5(1) The course consists of units to a total value of 48 points comprising—
(a) all units in Table 9.5.11(1) (Graduate Diploma in Science Communication Core Units)—18 points
and
(b) units to the value of 18 points from Group A in Table 9.5.11(2) (Graduate Diploma in Science Communication Options) chosen in consultation with the course co-ordinator;
and
(c) units to the value of 12 points from Group A or Group B in Table 9.5.11(2) (Graduate Diploma in Science Communication Options).

(2) The Faculty, on the recommendation of the course coordinator, may permit a student to substitute for units referred to in (1)(c) other relevant units of equivalent value offered in this University or in any comparable course in another recognised institution.
9.6.8A MASTER OF SCIENCE AND TECHNOLOGY (52550)

Applicability of the University General Rules for Academic Courses
9.6.8A.1

Course Structure
9.6.8A.4(1) The course consists of units to a total value of 96 or 98 points comprising—
(a) all units in Table 9.6.8A(1) [Master of Science and Technology (52550) Core Units]—48 12 points
and
(b) at least one unit from Table 9.6.8A(2) [Master of Science and Technology (52550) Communication Options] – 6 points
and
(c) units to the value of 36 points approved by the Faculty in one of the following programmes:

- Analytical Chemistry
- Anatomical Science
- Biochemistry
- Biophysics
- Computational Biology
- Human Biology
- Microbiology and Immunology
- Nanotechnology
- Pharmaceutical Science
- Physics
- Sport Science

and

(ed) dissertation units in the chosen programme area to the value of 36 points;
and

(de) one unit chosen in consultation with the course co-ordinator from the units available within the University—6 or 8 points.

(2) The Faculty, on the recommendation of the course co-ordinator, may permit a student to substitute for a unit referred to in (1)(cb) one other relevant unit of equivalent value offered in this University or in any comparable course in another recognised institution.

(3) A student taking the Sport Science programme may substitute the units in Table 9.6.8A(32) [Master of Science and Technology (52550) Alternative Research Units - Sport Science] for ANHB8404 Investigative Techniques: Data Acquisition and Analysis and ANHB8405 Investigative Techniques: Experimental Design and Bioethics in Table 9.6.8A(1) [Master of Science and Technology (52550) Core Units].

(4) A student taking the Physics programme should substitute the units in Table 9.6.8A(4) [Master of Science and Technology (52550) Alternative Research Units – Physics] for the units in Table 9.6.8A(1) [Master of Science and Technology (52550) Core Units].
A student who has completed a research dissertation in the same specialisation as that selected under (1)(cb) and (de) is not permitted to use the previous dissertation as the basis of the dissertation undertaken in this course, but must select a new area of study within the selected specialisation.

### Table 9.6.8A(1)—Master of Science and Technology (52550) Core Units

All units have a value of six points unless otherwise stated.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANHB8404</td>
<td>Investigative Techniques: Data Acquisition and Analysis</td>
</tr>
<tr>
<td>ANHB8405</td>
<td>Investigative Techniques: Experimental Design and Bioethics</td>
</tr>
<tr>
<td>COMM7403</td>
<td>Science Communication—Community Presentations</td>
</tr>
</tbody>
</table>

### Table 9.6.8A(2)—Master of Science and Technology (52550) Science Communication Options

All units have a value of six points unless otherwise stated.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT57720</td>
<td>Scientific Communication</td>
</tr>
<tr>
<td>COMM7403</td>
<td>Science Communication—Community Presentations</td>
</tr>
<tr>
<td>COMM7701</td>
<td>Science Communication—Writing</td>
</tr>
<tr>
<td>COMM7702</td>
<td>Science Communication—Displays and Exhibits</td>
</tr>
<tr>
<td>COMM7703</td>
<td>Science and the Media</td>
</tr>
<tr>
<td>COMM7704</td>
<td>Science Communication—Learning Technologies</td>
</tr>
</tbody>
</table>

### Table 9.6.8A(32)—Master of Science and Technology (52550) Alternative Research Units—Sports Science

All units have a value of six points unless otherwise stated.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMES7602</td>
<td>Research Methods in HMES</td>
</tr>
<tr>
<td>HMES7603</td>
<td>Data Analysis in HMES</td>
</tr>
</tbody>
</table>

### Table 9.6.8A(4)—Master of Science and Technology (52550) Alternative Research Units—Physics

All units have a value of six points unless otherwise stated.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS7415</td>
<td>Special Topics in Physics I</td>
</tr>
<tr>
<td>PHYS7416</td>
<td>Special Topics in Physics II</td>
</tr>
</tbody>
</table>
9.6.2C MASTER OF SCIENCE (HUMAN MOVEMENT) (THESIS AND COURSEWORK
51610, COURSEWORK AND DISSERTATION 51530, COURSEWORK 51550) (PG- HMVMT)

Applicability of the University General Rules for Academic Courses
9.6.2C.1(1) The rules in 1.1 and 1.2 of the University General Rules for Academic Courses in this
handbook apply to the Master of Science (Human Movement) except as set out in the rules which
follow.

(2) University General Rules 1.3.1.24 to 1.3.1.63 apply to the thesis, except that the thesis is not
awarded with distinction.

Applicability of the Science Faculties' General Provisions
9.6.2C.2 The Science Faculties' General Provisions in 9.6.1 apply to the course.

Modes of Study
9.6.2C.3 The course may be taken by way of—

(a) thesis and coursework;
(b) coursework and dissertation; or
(c) coursework.

Admission
9.6.2C.4 (1) The Faculty of Life and Physical Sciences may accept into the thesis and coursework for
the degree an applicant who—

(a) has a relevant four-year degree/bachelor's degree in Human Movement with first or second class
honours from this University, or equivalent as recognised by the Faculty; or

(b) has a Graduate Diploma in Science (Human Movement) from this University with an average mark
of at least 65 per cent, or equivalent as recognised by the Faculty.

(2) Students with a Graduate Diploma in Education will only be admitted into the Masters by thesis and
coursework provided the thesis topic relates to pedagogy.

Course Structure
9.6.2C.5(1) The course consists of units to a total value of 48 points.

(2) The course by thesis and coursework comprises—
(a) one unit from Table 9.6.2C(1) [Master of Science (Human Movement) by Thesis and
Coursework—Thesis Units]—36 points

and

(b) the following core units:

HMES7602 Research Methods (6 points)
HMES7603 Data Analysis (6 points)

(3) The course by coursework and dissertation comprises—
(a) one unit from Table 9.6.2C(2) [Master of Science (Human Movement) by Coursework and
Dissertation—Dissertation Units]—30 points

and

(b) the following core units:

HMES7602 Research Methods - 6 points
HMES7603 Data Analysis - 6 points
(b) three and one unit not previously completed from Table 9.6.2C(3) [Master of Science (Human
Movement) Options]—18-6 points.
(4) The course by coursework consists of units to a total value of 48 points from Table 9.6.2C(3) [Master of Science (Human Movement) Options], provided that at least 12 points come from the same group.

Substitution and Credit

9.6.2C.6 The Faculty, on the recommendation of the Head of the School of Sport Science, Exercise and Health may—

(a) approve the substitution of another unit for a maximum of one unit listed in Table 9.6.2C(3) [Master of Science (Human Movement) Options];

or

(b) grant credit for up to two units listed in Table 9.6.2C(3) [Master of Science (Human Movement) Options] on the basis of units completed as part of another incomplete course at this University or another recognised institution.

Table 9.6.2C(1)—Master of Science (Human Movement) by Thesis and Coursework—Thesis Units

<table>
<thead>
<tr>
<th>Unit</th>
<th>Title</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMES9715</td>
<td>Human Movement Thesis (full-time)</td>
<td>36</td>
</tr>
<tr>
<td>HMES9716</td>
<td>Human Movement Thesis (part-time)</td>
<td>18</td>
</tr>
</tbody>
</table>

1 Students who undertake the thesis on a part-time basis must enrol twice in the part-time thesis unit.

Table 9.6.2C(2)—Master of Science (Human Movement) by Coursework and Dissertation—Dissertation Units

<table>
<thead>
<tr>
<th>Unit</th>
<th>Title</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMES8718</td>
<td>Human Movement Dissertation (full-time)</td>
<td>15</td>
</tr>
<tr>
<td>HMES8719</td>
<td>Human Movement Dissertation (full-time) Part 2</td>
<td>15</td>
</tr>
<tr>
<td>HMES8720</td>
<td>Human Movement Dissertation (part-time)</td>
<td>1</td>
</tr>
</tbody>
</table>

1 Students who undertake the dissertation on a part-time basis must enrol twice in the part-time dissertation unit.

Table 9.6.2C(3)—Master of Science (Human Movement) Options

All units have a value of six points unless otherwise stated.

Group A—Biomechanics

| HMES7602 Research Methods in HMESSSEH |
| HMES7603 Data Analysis in HMES         |
| HMES7633 Advanced Biomechanical Methods|
| HMES7634 Advanced Neuromuscular Biomechanics |
| HMES7654 Advanced Concepts in Motor Control and Learning |
| HMES7691 Research Practicum I          |
| HMES7692 Research Practicum II         |
| HMES8694 Research Colloquium           |

Group B—Exercise Physiology

| HMES7602 Research Methods in HMES |
| HMES7603 Data Analysis in HMES     |
| HMES7643 Cardiac Rehabilitation    |
| HMES7644 Advanced Exercise Physiology |
| HMES7645 Workplace Injury Prevention and Management |
| HMES7651 Musculoskeletal Rehabilitation |
| HMES7685 Work Site Health Promotion |
| HMES7691 Research Practicum I      |
| HMES7692 Research Practicum II     |
| HMES8694 Research Colloquium       |
Group C—Motor Control and Learning/Movement Disability

HMES7602 Research Methods in HMES
HMES7603 Data Analysis in HMES
HMES7654 Advanced Concepts in Motor Control and Learning
HMES7691 Research Practicum I
HMES7692 Research Practicum II
HMES8694 Research Colloquium

Group D—Sport/Exercise Psychology

HMES7602 Research Methods in HMES
HMES7603 Data Analysis in HMES
HMES7651 Musculoskeletal Rehabilitation
HMES7663 Applied Sport Psychology
HMES7664 Exercise and Health Psychology
HMES7685 Work Site Health Promotion
HMES7691 Research Practicum I
HMES7692 Research Practicum II
HMES8694 Research Colloquium

¹ Not available in 2008.
PROPOSALS FOR NEW COURSES OR PROGRAMMES

New courses are new degree, diploma or certificate courses, including new honours degree courses. New programmes are new programmes within existing degrees, which are to be formally recognised through the use of a differentiated version of the existing course title e.g. BSc(Marine Science). For a new combined course leading to two degrees, use the form "Proposals for a new combined course leading to two degrees" at: http://www.secretariat.uwa.edu.au/home/policies/coursenot/proposals.

For transnational programmes, it is essential that the Checklist for Approval of Transnational Programmes is also completed - see http://www.secretariat.uwa.edu.au/home/policies/internatl

CORE QUESTIONS FOR CHECKLISTS USED BY FACULTIES

All faculties should use the questions below in their checklists for proposals for new courses and new programmes in existing courses. Faculties may add other questions as they see fit.

1. **Course Details**
   
   (1) Please provide the following information:

   (a) the proposed name of the course or programme: **Master of Science (Human Movement)**

   (b) the proposed abbreviated form of the course or programme name (see http://www.secretariat.uwa.edu.au/home/policies/degree_abbrev for policy on Degree Abbreviations); **MSc (HumanMvt)**

   (c) the proposed annual intake to the course or programme (in student numbers); **5 to 10 students per annum**

   (d) the proposed colour(s) of the silk linings and facings of the academic dress;

   (e) (for Masters degrees only)

      (i) Research (by thesis) where the research represents 100% of the course requirements

      (ii) Research (by thesis and creative work) where the assessment is based on a thesis and a creative and/or performance component

      (iii) Thesis and Coursework where the research represents 66.6% or more of the degree requirements

      (iv) Coursework and Dissertation where the research component represents less than 66.6% of the degree requirements

      (v) Coursework where the coursework is 100% of the degree requirements.

   (f) entry requirements; **Relevant bachelor's degree with honours (any level)**

   (g) total number of points required for completion; **96 points**

   (h) expected completion time for full-time student taking standard load; **2 years**

   (i) delivery mode (ie. Internal, external, multi-mode, online-only). **Internal**

   (ii) are any units taught by any kind of non face-to-face instruction? **No**

   (Note: Where a course is delivered less than 75% face-to-face (ie more than 25% by distance learning or similar), there may be implications for international student visas. Please contact the International Centre for more information.)

   (j) is any part of the course taught away from the Crawley campus? **No**

   (k) is any part of the course delivered by or taught in collaboration with another organisation? If yes, please state the name and address of the other organisation. **No**

   (l) is honours available in this course? If yes, please explain how students undertake honours study. Is study towards honours open to international students? **No**
(2) Please give a succinct summary of the academic objectives of the proposed new course/programme. The aim of this 2 years masters degree program is to offer international students the opportunity to achieve academically, and provide the necessary educational background to proceed to a research degree.

(3) Please indicate whether the proposal is the outcome of a school, course or other review. **Yes**

(4) Does this course complement any major research activities and/or centres? □ □ **No**
   (If yes, please elaborate)

2. **Demand**

   **Notes:**
   (i) The Chair of the Admissions Committee and the Manager, Admissions Centre are available to offer advice on estimating student numbers. (Please note that decisions on any quotas applicable to this course will be made by the Working Party on the Admission and Quota Policy.)

   (ii) For new undergraduate courses to be listed in the TISC Guide, they need to be approved by Academic Council by May at the latest. Please advise the Executive Officer, Admissions Committee, as early as possible, of proposed new undergraduate courses.

(1) Estimate the annual number of sufficiently qualified applications expected for this course. Please state the number of Australian and international student admissions separately.
   - Australian - Nil
   - International – 5 to 15 applications

(2) What is the expected impact on applications for admission to other courses? Please provide separate figures for Australian and international students.
   - This would not impact on applications for other courses in any way, but provide additional opportunities especially for international students

3. **Employment Outcomes**

   What do you believe will be the principal employment destinations for graduates and on what basis have you estimated this?

   **Educational Institutions, as many international students are sponsored by their governments to achieve additional academic qualifications to impart to students at secondary and tertiary levels.**

4. **Consultation**

   (1) Please provide details of consultations you have had with various groups and individuals during the development of this proposal, including the following:
   - other schools of the University which may have an interest in the course, including relevant academic staff; N/A
   - students and graduates; **International students currently within the School**
   - employers and/or employer groups, and professional bodies; N/A
   - other universities in WA which offer courses in similar fields; N/A
   - leading universities in Australia and overseas which offer courses in similar fields; N/A
   - There has been discussion regarding this matter with the Faculty who support this option.

   (2) If you are proposing a completely new course, have you given consideration to the alternative of introducing a new programme/major within an existing course? Please elaborate. **N/A**

   (3) If the proposal is similar to offerings in other institutions in WA, have you considered whether there is scope for a co-operative/collaborative approach? Please elaborate. **N/A**

5. **Fees**

   **Note:** Courses must not be offered or advertised in any way to international students until after they have been registered through the International Centre with CRICOS. Please ensure that you consult with the Director, International Centre about the suitability of a course for international students and any conditions that may be required.

   (1) (a) Is the course to be registered on CRICOS as available to international fee-paying students on Student Visas? **YES / NO**
Is the course to be offered to international fee-paying students on other visas?  
YES / NO

(b) What fee per annum is proposed for international fee-paying students?  
Fees as currently set by UWA

(2)  
(a) (Postgraduate coursework degrees/diplomas/certificates only) Is the course to be registered 
with DEST as available on a fee-paying basis to local students?  
YES / NO

(b) If so, what fee is proposed?  Please state: fee per annum, the total number of points and the 
fee per point. N/A

(c) Please comment on consultations you have had with other institutions, both national and 
local, in determining that fee. N/A

6. Explanation of how the proposed course fits with the University’s and the Faculty’s Strategic and 
Operational Priorities Plans

An explanation as to how the proposed course fits with the University’s and the Faculty’s Strategic and 
Operational Priorities Plans must be attached to this checklist. The maximum length of the explanation is 
one A4 page.

The proposed masters program will be attractive to international students and raise the Faculty and 
School profile overseas which fits within the Faculty’s Strategic Operation Priorities Plan to attract 
and retain fee-pay international students at graduate level.

7. Information Flow

(1) Please confirm by ticking the boxes and entering the date of action, that you have forwarded a copy of this 
proposal, either in hard copy, or electronically, to:

External to the Faculty

- The Deans of all faculties which resource schools responsible for teaching units in the course/ 
programme. N/A

  Faculty of ____________________________________________  □ Date __________
  Faculty of ____________________________________________  □ Date __________
  Faculty of ____________________________________________  □ Date __________

- The Head and relevant academic staff of any school which will be teaching in the course/programme. 
N/A

  School of ____________________________________________  □ Date __________
  School of ____________________________________________  □ Date __________
  School of ____________________________________________  □ Date __________

- The Head and relevant academic staff of any school which is not involved in the course/programme, 
but which teaches in a cognate area. N/A

  School of ____________________________________________  □ Date __________
  School of ____________________________________________  □ Date __________
  School of ____________________________________________  □ Date __________

- The Librarian N/A (no impact on library resources) Date __________

- Where the course proposed involves indigenous issues, the Dean of the School of Indigenous Studies N/A  □ Date __________
• Where the course proposed is postgraduate and includes 66.6% or more research, the Pro Vice-Chancellor (Research and Research Training) N/A – Variation to existing program

Date ______________________

• Executive Officer, Admissions Committee
  (for new undergraduate courses only) N/A

□ Date ______________________

• Where the course proposed is to be available to international students, the Director, International Centre
  N/A – Modified version of existing program

□ Date ______________________

Internal to the Faculty
• The Head and relevant academic staff of any school which will be teaching in the course/programme:
  N/A

School of
□ Date

School of
□ Date

School of
□ Date

• The Head and relevant academic staff of any school which is not involved in the course/programme, but which teaches in a cognate area. N/A

School of
□ Date

School of
□ Date

School of
□ Date

(2) Please confirm, by ticking the box, that you have completed a Faculty Checklist for each new unit introduced as a result of this proposal. N/A – units already exist

□

(3) Please confirm, by ticking the box, that the proposed course rules are attached. Modification only to existing rules

□

(4) Please confirm, by ticking the box, that you have sent a course overview to Publications. Will be forwarding once approved

□

(5) Please confirm, by ticking the box, that you have consulted with Student Administration about the degree abbreviation. Faculty will do this once approved

□

Signature of Dean

Faculty of

Life and Physical Sciences

8. All courses – confirmation by Dean

I confirm that the process leading to the proposal for the introduction of the following course/programme

Name of course/programme    Masters of Science (Human Movement)

has included appropriate consultation with all other faculties with a potential interest in the proposed course and that the course will not overlap significantly with any existing course.

Have any objections to this proposal been raised during the consultation process? □ Yes □ No
(If yes, please attach details of objection and response)

Signature of Dean

Faculty of
9. **Confirmation by Dean of the School of Indigenous Studies – N/A**

Where the course proposed involves indigenous issues, the Dean of the School of Indigenous Studies must confirm the school's support.

I confirm that the indigenous issues involved in the proposal for the following course/programme:

Name of course/programme

have been discussed with me and I confirm the support of the School of Indigenous Studies for the introduction of this course/programme.

Signature of Dean of the School of Indigenous Studies

10. **Certification that the proposal is acceptable to the International Centre**

Where it is proposed to offer the course to international or offshore students, the Director, International Centre (or delegate) must confirm the proposal is acceptable to the International Centre.

I confirm that the International Centre has been consulted on the introduction of this course/programme, and is satisfied that the fee proposed to be charged to international/offshore students is appropriate.

Name of course/programme

Masters of Science (Human Movement)

Signature of Director, International Centre (or delegate)
The new school mathematics courses – A guide for universities

This brief summary of the new mathematics courses that will be introduced into schools at Year 11 level in 2009 was written in the hope that it will be useful for university people who need to set mathematical pre-requisites for their courses in the very near future.

The key features of the new courses from a university perspective are as follows.

- There are two new courses. *Mathematics* and *Mathematics: Specialist*.
  - *Mathematics* is by far the larger course. It is expected that more than 90% of students in Years 11 & 12 will take units from this course. It consists of 15 units, ranging in order of increasing difficulty from PAMAT to 3DMAT.
  - *Mathematics: Specialist* is essentially 'double mathematics'. It is designed primarily for students who want to do two mathematics courses, but can be taken alone. It is intended for those planning to do engineering and science-related courses at university. It consists of just 4 units, ranging in order of increasing difficulty from 3AMAS to 3DMAS.

- The new courses will be introduced in schools in 2009 for Year 11 and in 2010 for Year 12

- The units are semester-long. However they will be examined in pairs, and it is expected that most schools will teach them as year-long pairs

- The linkage with existing TEE mathematics subjects is not exact. Here is an approximation:
  - *Calculus* corresponds to the top level units (3C/D) in *Mathematics: Specialist*
  - *Applicable Mathematics* corresponds to the top level units (3C/D) in *Mathematics*. However weaker *Applicable Mathematics* students will be encouraged to finish at 3A/B.
  - *Discrete Mathematics* corresponds to 2C/D in *Mathematics*. However more able *Discrete Mathematics* students, i.e. the majority of those going on to university, will finish at 3A/B.

- Unlike the existing courses, there are common threads or themes running through all of the units in *Mathematics* and in *Mathematics: Specialist*. In *Mathematics* I've called them 'Algebra', 'Statistics' and 'Geometry', but these titles should not be taken too literally. For example, in the lower level units there is very little algebra – it's mostly arithmetic, and in the highest level units the algebra strand consists mostly of calculus. A brief outline of how these strands are developed in the top level units (the ones of most interest to universities) appears overleaf.

- Calculus makes its first appearance in 3BMAT. So students who finish at this level will gain some understanding of the elementary differential calculus of polynomials.

- The final external examinations have two sections, one of which will be 'calculator-free'.

- Features of these new courses which are less evident in the existing TEE mathematics subjects include
  - A greater reliance on technology, primarily in the form of CAS calculators (CAS = Computer Algebra System)
  - Greater prominence of recursion and recursive techniques
  - Greater emphasis on mathematical proof and reasoning.
  - Statistics in all units of the *Mathematics* course.

- There is more to these courses than just the content. Fundamental skills such as problem solving, mathematical modelling and effective communicating of results are emphasized in all units.

- There will be 'bonuses' in TER calculations that will act as incentives for students to study mathematics at the highest level within their capabilities. Universities are encouraged to provide similar incentives by setting appropriate pre-requisites for some courses, and by recommending certain mathematics units as suitable preparation for others.

Ken Harrison
Murdoch University
12th March, 2008
# Mathematics – Content summary

<table>
<thead>
<tr>
<th>Units</th>
<th><strong>Algebra</strong></th>
<th><strong>Statistics</strong></th>
<th><strong>Geometry</strong></th>
</tr>
</thead>
</table>
| 2A/B  | Arithmetic operations, Integers  
       | Fractions, decimals, ratios and percentages  
       | Linear & exponential functions, graphs and equations  
       | Solving pairs of linear equations: algebraically & graphically  
       | Profit & loss, discounts,  
       | Sequences and recursion. | Data collection  
       | Histograms, pie charts,  
       | scatter plots & trend lines  
       | frequency tables  
       | Mean, median, mode  
       | Elementary concepts of probability | Pythagoras' theorem  
       | Translations, rotations,  
       | reflections  
       | Surface areas & volumes  
       | Trigonometric ratios  
       | Coordinate geometry  
       | Networks |
| 2C/D  | Calculator usage, significant figures  
       | Graphs of linear & quadratic functions  
       | Factorization of quadratics  
       | Index laws  
       | Graphical solution of equations: quadratic, cubic and exponentials  
       | Interest: simple & compound  
       | Inflation & depreciation  
       | Arithmetic & geometric progressions | Probability laws  
       | Means for grouped data  
       | Plots of bivariate data  
       | Trend lines fitted by eye  
       | Standard deviation  
       | Intuitive statistical inference  
       | Survey techniques | Gradient & slope  
       | Distance in the plane  
       | Elementary network problems  
       | Area of triangles  
       | Sine & cosine rules |
| 3A/B  | Functions and their graphs  
       | Qualitative features of graphs: intercepts, symmetry, asymptotes, maxima & minima  
       | Algebraic solution of equations: quadratic, factored cubics and exponentials, Reciprocals and inverse proportion  
       | Introductory calculus: rates of change, derivatives, tangent lines (polynomials only). Annuities and loan repayments  
       | Deductive arguments using algebra | Counting techniques  
       | Probabilities associated with normal distribution  
       | Representing and interpreting data  
       | Sampling techniques  
       | Correlation and regression, regression lines,  
       | Moving averages | Advanced network problems: critical paths  
       | Geometric proofs  
       | Conversions between rate units  
       | Interpretation of distance-time graphs |
| 3C/D  | Basic differentiation rules, integration, fundamental theorem of calculus,  
       | Optimization, related rates, areas  
       | Calculus for exponential functions  
       | Growth & decay  
       | Two variable linear programming  
       | Systematic solution of linear equations in 2 or 3 variables | Conditional probabilities  
       | Combinations  
       | Binomial random variables  
       | Behaviour of the sample mean  
       | Introduction to statistical inference: confidence intervals | Reasoning and proof in geometry  
       | Rectilinear motion  
       | Volumes of solids of revolution |

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# Mathematics: Specialist – Content summary

<table>
<thead>
<tr>
<th>Units</th>
<th><strong>Calculus</strong></th>
<th><strong>Vectors &amp; Matrices</strong></th>
<th><strong>Trigonometry &amp; complex numbers</strong></th>
</tr>
</thead>
</table>
| 3A/B  | Exponential & logarithmic functions: applications to growth & decay  
       | Function concepts: domain & range, composition, inverses, limits & continuity | Vector quantities (in 2 dimensions): magnitude & direction, components  
       | Vector algebra | Arc length & radian measure  
       | Polar coordinates | Areas of sectors and segments,  
       | Solution of triangles | Trigonometric functions: properties, graphs & equations  
       | Arithmetic with complex numbers |
|       | Area between curves  
       | Equation of tangent lines  
       | Integration by substitution  
       | Related rates  
       | Elementary differential equations: simple harmonic motion, exponential growth | Vectors in 3 dimensions  
       | Vector equations of lines and spheres  
       | Matrices and matrix algebra  
       | Matrix solution of linear equations  
       | Linear transformations in the plane | Transition matrices | Calculus of trigonometric functions  
       | Complex numbers: polar form  
       | DeMoivre’s and Euler’s formulae |
Memorandum

OFFICE OF THE PRO VICE-CHANCELLOR
(TEACHING AND LEARNING)

Associate Professor Jane Long
Pro Vice-Chancellor (Teaching and Learning)

Mail Bag M466
Extension 2077
Facsimile 1013
Email Jane.Long@uwa.edu.au
www.uwa.edu.au

Our Ref: 7 April 2008

To: Sub-Deans and Faculty Student Advisors
Sub-Dean UWA Business School (Faculty of Business) (Mr Paul Lloyd)
Associate Dean (Students) Faculty Engineering Computing & Mathematics (Dr Jennifer Hopwood)
Faculty Adviser, Faculty of Life & Physical Sciences (Dr Jane Emberson)
Sub Dean (Health Sciences) Faculty of Medicine, Dentistry & Health Sciences (Ms Jane Heyworth)
Senior Faculty Admin Officer, Faculty of Natural and Agricultural Sciences (Ms Marjan Heibloem)

Dear colleagues

Re: Mathematics prerequisite advice to Faculties – April 2008

As you are aware, the University needs to publish prerequisites for 2011 entry with sufficient notice to enable current Year 10 students to select their senior secondary subjects in Term 2 and Term 3 this year.

This information is published through a TISC document, 2011 Admission Requirements for School Leavers. In order to reach schools and students in good time, TISC require information from universities at the end of April.

In a number of meetings over the last 18 months (most recently at the presentation on new Mathematics courses by Curriculum Council staff on 28 February), faculties had been reminded that the deadline for deciding on prerequisites was the end of March 2008.

While a number of faculties have responded already, I realise the issue is still under discussion in others. For that reason I have extended the deadline to Monday 21 April 2008. To provide time for circulation amongst Admission Committee members and fulfil our commitment to TISC deadlines, no further extension is possible. As a result, this may require urgent faculty decision by circulation.

From the responses received to date, there appear to be differing interpretations of how the prerequisite currently expressed as ‘Any TEE mathematics subject’ should be reflected in the new Mathematics [General] Course of Study.

It is important that consideration of prerequisite specifications focus essentially on content, rather than wider issues of what may be desirable in students’ mathematics preparation. Information received from the Curriculum Council indicates that Mathematics 2C/D corresponds best to the current Discrete Mathematics subject.
For this reason, from a whole-of-University perspective, the equivalent to the current ‘Any TEE mathematics’ prerequisite should preferably be expressed as Mathematics 2C/D, with clear indication that Mathematics 3A/B is strongly recommended. Individual faculties that wish to set a higher-level prerequisite (eg: Mathematics 3A/B) may, however, do so.

This guidance is provided as a considered, cautious response to a situation in which there are still a significant number of unknown factors. While it in no way overrides faculties’ authority to set prerequisites, it may help provide greater consistency between specifications and maintain achievable entry pathways for otherwise well-qualified students.

Regards

Associate Professor Jane Long
Pro Vice-Chancellor (Teaching and Learning)
University of Western Australia
M466, Crawley, WESTERN AUSTRALIA 6009.

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CRICOS Provider No. 00126G

cc Deans of Faculty
Faculty of Business (UWA Business School) (Ms Tracey Horton)
Faculty of Engineering, Computing and Mathematics (Professor Mark Bush)
Dean of Faculty of Life and Physical Sciences (Professor George Stewart)
Faculty of Natural and Agricultural Sciences (Professor Lynette Abbott)
Faculty of Medicine, Dentistry and Health Sciences (Professor Ian Puddey)
<table>
<thead>
<tr>
<th>Course</th>
<th>Type</th>
<th>Duration (yrs)</th>
<th>Faculty</th>
<th>Crawford Code</th>
<th>Albany Code</th>
<th>Prerequisites</th>
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<tbody>
<tr>
<td>Advanced Science</td>
<td>P</td>
<td>3.5/4</td>
<td>FLPS</td>
<td>UWSCC</td>
<td>N/A</td>
<td>A final scaled score of 85 in all science subjects, including at least one Mathematics subject. Applicable Mathematics is recommended, and one or more of Chemistry, Physics, Calculus, Biology and Human Biology is desirable.</td>
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<tr>
<td>Agricultural Economics</td>
<td>P</td>
<td>4</td>
<td>FNAS</td>
<td>UWBSC</td>
<td>UABSC</td>
<td>Any TEE mathematics subject ³</td>
</tr>
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<td>Agriculture</td>
<td>C</td>
<td>4</td>
<td>FNAS</td>
<td>UWAGC</td>
<td>UAAAGC</td>
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<td>P</td>
<td>3</td>
<td>FLPS</td>
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</tr>
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<td>M</td>
<td>3</td>
<td>FLPS</td>
<td>UWSCC</td>
<td>UASC03</td>
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<tr>
<td>Animal Science</td>
<td>P</td>
<td>4</td>
<td>FNAS</td>
<td>UWBSC</td>
<td>UABSC</td>
<td>Any TEE mathematics subject ³ Recommended: Applicable Mathematics</td>
</tr>
<tr>
<td>Anthropology</td>
<td>M</td>
<td>3</td>
<td>FLPS</td>
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<td>Any TEE mathematics subject ³ Recommended: Applicable Mathematics</td>
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<tr>
<td>Applied Mathematics</td>
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<td>3</td>
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<tr>
<td>Biomedical Science</td>
<td>P</td>
<td>3</td>
<td>FLPS</td>
<td>UWSCC</td>
<td>UASC03</td>
<td>Any TEE mathematics subject ³ Strongly recommended: TEE Applicable Mathematics, Chemistry</td>
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<td>Biophysical Science</td>
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<td>3</td>
<td>FLPS</td>
<td>UWSCC</td>
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<td>Biophysics</td>
<td>M</td>
<td>3</td>
<td>FLPS</td>
<td>UWSCC</td>
<td>N/A</td>
<td>TEE Applicable Mathematics, Physics Recommended: TEE Calculus, Chemistry</td>
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<tr>
<td>Botany</td>
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<td>UWSCC</td>
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<td>UASC04</td>
<td>TEE Applicable Mathematics, Chemistry, Chemistry, Physics Recommended: TEE Calculus, Physics</td>
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<td>FLPS</td>
<td>UWSCC</td>
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<td>Any TEE mathematics subject ³ Recommended: TEE Applicable Mathematics</td>
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<td>Conservation Biology and</td>
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<td>3</td>
<td>FNAS</td>
<td>UWSCC</td>
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<td>UWBCG</td>
<td>UACBC</td>
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<td>FNAS</td>
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<tr>
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<td>UWBSC</td>
<td>UABSC</td>
<td>Any TEE mathematics subject ³</td>
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<td>Resource Economics</td>
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<td>3</td>
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<td>UWSCC</td>
<td>UASC05</td>
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<td>UWSCC</td>
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<tr>
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<td>UASC03</td>
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<td>(Environmental Science)</td>
<td>P</td>
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<td>FNAS</td>
<td>UWSCC</td>
<td>UASC03</td>
<td>Any TEE mathematics subject ³ TEE Applicable Mathematics and Chemistry are required for the Environmental Chemistry major.</td>
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<td>Exercise and Health Science</td>
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<td>3</td>
<td>FLPS</td>
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<td>Genetics</td>
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<td>3</td>
<td>FLPS</td>
<td>UWSCC</td>
<td>UASC03</td>
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<td>Genetics and Breeding</td>
<td>P</td>
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<td>UWBSC</td>
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### UWA Science Courses (cont.)

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<tr>
<th>Course</th>
<th>Type</th>
<th>Duration (yrs)</th>
<th>Faculty</th>
<th>Crawford Code</th>
<th>Albany Code</th>
<th>Prerequisites</th>
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<tr>
<td>Geochemistry</td>
<td>P</td>
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<td>UWSCC</td>
<td>UASCC</td>
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<td>UASCC</td>
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<td>3</td>
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<td>UWSCC</td>
<td>UASCC</td>
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<td>UWSCC</td>
<td>UASCC</td>
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<td>UWSCC</td>
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<td>Horticulture</td>
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<td>UWSCC</td>
<td>UASCC</td>
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<td>Human Movement and Exercise Science</td>
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<td>3</td>
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<td>3</td>
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<td>UWSCC</td>
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<td>3</td>
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<td>UWSCC</td>
<td>UASCC</td>
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<td>UWSCC</td>
<td>UASCC</td>
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<td>3</td>
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<td>UWSCC</td>
<td>UASCC</td>
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<td>UASCC</td>
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<td>UASCC</td>
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<td>UWSCC</td>
<td>UASCC</td>
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<td>Mathematical Statistics</td>
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<td>UWSCC</td>
<td>UASCC</td>
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<td>FNAS</td>
<td>UWSCC</td>
<td>UASCC</td>
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<td>P</td>
<td>3</td>
<td>FLPS</td>
<td>UWSCC</td>
<td>UASCC</td>
<td>TEE Applicable Mathematics and Chemistry, Recommended: TEE Calculus</td>
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<td>P</td>
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<td>FLPS</td>
<td>UWSCC</td>
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<td>TEE Applicable Mathematics and Chemistry, TEE Calculus, Physics, and Engineering Science streams</td>
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<td>UASCC</td>
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<td>P</td>
<td>3</td>
<td>FLPS</td>
<td>UWSCC</td>
<td>UASCC</td>
<td>Any TEE mathematics subject 22, Recommended: TEE Applicable Mathematics, Chemistry</td>
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<td>3</td>
<td>FLPS</td>
<td>UWSCC</td>
<td>N/A</td>
<td>Any TEE mathematics subject 23, Recommended: TEE Applicable Mathematics, Chemistry</td>
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<td>Petroleum Geoscience</td>
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<td>FNAS</td>
<td>UWSCC</td>
<td>UASCC</td>
<td>Any TEE mathematics subject 24, Recommended: TEE Applicable Mathematics</td>
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<td>Pharmacology</td>
<td>M</td>
<td>3</td>
<td>FLPS</td>
<td>UWSCC</td>
<td>UASCC</td>
<td>Any TEE mathematics subject 25, Recommended: TEE Applicable Mathematics, Chemistry</td>
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<td>Physical Science</td>
<td>P</td>
<td>3</td>
<td>FLPS</td>
<td>UWSCC</td>
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<td>TEE Applicable Mathematics and at least one of Chemistry or Physics (depending on major), TEE Calculus is recommended. For the Physics and Mathematics majors TEE Calculus is required</td>
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<td>Physics</td>
<td>M</td>
<td>3</td>
<td>FLPS</td>
<td>UWSCC</td>
<td>N/A</td>
<td>TEE Applicable Mathematics, Calculus, Physics, Recommended: TEE Chemistry</td>
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<tr>
<td>Physiology</td>
<td>M</td>
<td>3</td>
<td>FLPS</td>
<td>UWSCC</td>
<td>UASCC</td>
<td>Any TEE mathematics subject 26, Recommended: TEE Applicable Mathematics, Chemistry</td>
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<td>Psychological Studies</td>
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<td>3</td>
<td>FLPS</td>
<td>UWSCC</td>
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<td>Any TEE mathematics subject 27, Recommended: TEE Applicable Mathematics, Human Biology</td>
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<td>Psychology</td>
<td>M, P</td>
<td>3</td>
<td>FLPS</td>
<td>UWSCC</td>
<td>UASCC</td>
<td>Any TEE mathematics subject 28, Recommended: TEE Applicable Mathematics, Human Biology</td>
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### UWA SCIENCE COURSES (cont.)

<table>
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<tr>
<th>Course</th>
<th>Type</th>
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<th>Faculty Code</th>
<th>Faculty Code</th>
<th>Albany Code</th>
<th>Prerequisites</th>
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<tr>
<td>Pure Mathematics</td>
<td>M</td>
<td>3</td>
<td>FLPS</td>
<td>UWSCC</td>
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<td>TEE Applicable Mathematics, Calculus</td>
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<td>Restoration Ecology</td>
<td>C</td>
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<td>FNAS</td>
<td>N/A</td>
<td>UAERC</td>
<td>Any TEE mathematics subject ²</td>
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<tr>
<td>Science Communication</td>
<td>P</td>
<td>3</td>
<td>FLPS</td>
<td>UWSCC</td>
<td>UASC</td>
<td>Any TEE mathematics subject ³ and the prerequisites for the intended Science major. Recommended: TEE Applicable Mathematics</td>
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<td>Science Education</td>
<td>P</td>
<td>3</td>
<td>FLPS</td>
<td>UWSCC</td>
<td>N/A</td>
<td>TEE Applicable Mathematics and at least one of TEE Chemistry or Physics. Recommended: TEE Calculus</td>
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<td>Science International</td>
<td>P</td>
<td>3</td>
<td>FLPS</td>
<td>UWSCC</td>
<td>N/A</td>
<td>Any TEE mathematics ⁴, TEE Chinese, French, German, Indonesian, Italian or Japanese. Specific prerequisites for your Science major.</td>
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<td>Scientific Computation</td>
<td>P</td>
<td>3</td>
<td>FLPS</td>
<td>UWSCC</td>
<td>N/A</td>
<td>TEE Applicable Mathematics, TEE Calculus ⁵. At least one of TEE Physics, Chemistry or Geology.</td>
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<td>(Soil Science)</td>
<td>M</td>
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<td>FNAS</td>
<td>UWSCC</td>
<td>UASC</td>
<td>Any TEE mathematics subject ⁶</td>
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<td>Urban &amp; Regional Planning</td>
<td>P</td>
<td>4</td>
<td>FNAS</td>
<td>UWBSC</td>
<td>N/A</td>
<td>Any TEE mathematics subject ⁷</td>
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<tr>
<td>Wildlife Management</td>
<td>P</td>
<td>4</td>
<td>FNAS</td>
<td>UWBSC</td>
<td>UABSC</td>
<td>Any TEE mathematics subject ⁸</td>
</tr>
<tr>
<td>Zoology</td>
<td>M</td>
<td>3</td>
<td>FNAS</td>
<td>UWSCC</td>
<td>UASC</td>
<td>Any TEE mathematics subject ⁹</td>
</tr>
</tbody>
</table>

1. A major (M) is a sequence of studies in a particular subject area. One or two majors can be combined together with electives in your Bachelor of Science course. A named programme (P) is a prescribed course of study, which may be cross-disciplinary and leads to a named Bachelor of Science degree. For this reason, named programmes are not available in combined degrees. A course (C) is a separate degree course with its own code.

2. Contact details for the Faculty of Life and Physical Sciences (FLPS) and the Faculty of Natural and Agricultural Sciences (FNAS) are on page 140.

3. Only Restoration Ecology can be completed entirely at the Albany Centre.

4. All students entering the Bachelor of Science are required to have a pass in a TEE mathematics subject. If you do not have a pass in Applicable Mathematics or Calculus, you will be required to complete a mathematics unit in your first year.

5. All students must satisfy English Language Competence requirements (see page 137).

6. TEE Chemistry may be required to commence this major sequence or programme at the Albany Centre. Check with the Albany Centre.

7. This degree is only available at the Albany Centre.

8. A pass in Math 1030 taken over the summer immediately preceding the course is an acceptable alternative to TEE Calculus.
Hi Jane,

To confirm my comments during our phone conversation this morning, Chemistry is recommending both the 3A and the 3B unit at WACE level as prerequisites for studying CHEM1101, CHEM1102, CHEM1103, and CHEM1104 when the new tertiary system is in operation.

Regards,

Murray