FACULTY OF SCIENCE
SCIENCE EXECUTIVE COMMITTEE

Members
Dean (Chair) Prof Tony O’Donnell
Deputy Dean Prof Brendan Waddell
Faculty Manager & Executive Officer Ms Christine Richardson
Faculty Manager Ms Abbe Rorrison

Heads of Schools
Agricultural & Resource Economics Prof David Pannell
Anatomy, Physiology & Human Biology A/Prof Shane Maloney
Animal Biology Prof Sarah Dunlop
Chemistry & Biochemistry Prof Mark Spackman
Earth & Environment Prof Matthew Tonts
Physics Prof Ian McArthur
Plant Biology Prof Tim Colmer
Psychology Prof Murray Maybery
Sports Science & Exercise Health Prof Tim Ackland

Up to 2 representatives of Institutes and Centres
Prof Kadambot Siddique or
Prof Phil Vercoe or Prof Dan Murphy

Associate Deans
Associate Dean Teaching and Learning A/Prof Peter Hammond
Associate Dean Graduate Research Studies Prof Andrew Page

Co-opted members

By Invitation
Prof Shaun Collin, Director, Oceans Institute
Prof Gary Kendrick, Head of School elect Plant Biology
Dr Michael Rosenberg, incoming A/Head of School
Sports Science Exercise & Health

The next meeting of the Science Executive Committee is scheduled for 3:00 pm on Tuesday, 16 June 2015 in the Science Board Room (Room G108, Ground Floor of Agriculture Central).

Christine Richardson, Executive Officer

1. WELCOME
The Chair welcomes Members to the meeting.

2. APOLOGIES
Members are advised that membership of this committee is as listed above and that a deputy is not required should a member be unavailable to attend a meeting. Apologies received: Tony O’Donnell, David Pannell,

3. DECLARATIONS OF POTENTIAL OR PERCEIVED CONFLICTS OF INTEREST - REF: F45668

4. CHECK IN

5. IDENTIFY TOPICS FOR DISCUSSION IN PART IV
Meetings will be structured so that ample time is made available for robust discussion about strategic issues. Members can put forward items for discussion in advance of the meeting. In addition, members will be invited at the start of each meeting to identify items for discussion at Part IV of the Agenda.
6. MINUTES FROM PREVIOUS MEETINGS

The Minutes of the Science Executive Committee meeting held on 19 May 2015 are presented at Attachment A. Members are asked to confirm that these minutes are a true and correct record.

7. UPDATE ON ACTION ITEMS

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DUE DATE / RESPONSIBILITY</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workload models</td>
<td>Dean</td>
<td>Awaiting developments around PPP to identify next steps and timeline.</td>
</tr>
<tr>
<td>Academic Appointment of Deputy Director for the Australian Herbicide Resistance Initiative</td>
<td>Head of School</td>
<td>Interview process competed, offer of appointment made</td>
</tr>
<tr>
<td>Academic Sabbatical</td>
<td>Faculty Manager, Strategy &amp; Planning</td>
<td>Faculty panel established: Vrielink (chair), Badcock (deputy chair), Grierson, Hammond and Prout. 2016 applications due to Faculty Office by 15 July 2015.</td>
</tr>
<tr>
<td>Appointments in NMR (Acad and Prof positions)</td>
<td>HoS SCB, Director CMCA</td>
<td>Recruitment in progress</td>
</tr>
<tr>
<td>Lecturer in Ecology in Plant Biology</td>
<td>HoS Plant Biology</td>
<td>Recruitment in progress</td>
</tr>
<tr>
<td>Curriculum items</td>
<td>Deputy Dean</td>
<td>CAIDI being updated</td>
</tr>
</tbody>
</table>

PART I: ITEMS FOR COMMUNICATION TO BE DEALT WITH EN BLOC

8. CENTRE FOR FORENSIC SCIENCE

Following an organisational change process that commenced in mid 2014, a decision has been made to disestablish the Centre for Forensic Science; to close the business unit; to suspend entry into the current courses and teach-out students in existing courses; to explore the market opportunities for a new postgraduate teaching program in forensic science in the future at UWA and to transfer the management of teach-out responsibilities to APHB, all with immediate effect.

PART II: ITEMS FOR DECISION TO BE DEALT WITH EN BLOC

9. UNITS FOR RECISSION

From the Science Teaching and Learning Committee meeting of 28 May 2015

The Faculty of Science delegations currently require that rescission of existing units and the approval of new units be approved by this committee.

The Science Teaching and Learning Committee recommend the rescission of the following units.

School of Chemistry and Biochemistry

<table>
<thead>
<tr>
<th>Unit</th>
<th>Status</th>
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</thead>
<tbody>
<tr>
<td>CHEM1103 Biological Organic Chemistry</td>
<td>Pre 2012 unit no longer required for PSB</td>
</tr>
<tr>
<td>CHEM1104 Biological Inorganic and Physical Chemistry</td>
<td>Pre 2012 unit no longer required for PSB</td>
</tr>
<tr>
<td>BIOC3372 Cellular and Metabolic Biochemistry</td>
<td>Pre 2012 unit no longer required for PSB</td>
</tr>
<tr>
<td>SCIE7430 Nanotechnology Honours Written and Oral Skills Part 1</td>
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<td>SCIE7431 Nanotechnology Honours Written and Oral Skills Part 2</td>
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<tr>
<td>SCIE7432 Nanotechnology Honours Research Project Part 1</td>
<td>Pre 2012 unit no longer required</td>
</tr>
<tr>
<td>SCIE7433 Nanotechnology Honours Research Project Part 2</td>
<td>Pre 2012 unit no longer required</td>
</tr>
<tr>
<td>BIOC7405 Biochemistry Honours Major Research Project Part 1</td>
<td>Pre 2012 unit no longer required</td>
</tr>
<tr>
<td>BIOC7410 Biochemistry Honours Major Research Project Part 2</td>
<td>Pre 2012 unit no longer required</td>
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### Faculty of Science

<table>
<thead>
<tr>
<th>Unit Code</th>
<th>Unit Title</th>
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<tbody>
<tr>
<td>BIOC7407</td>
<td>Biochemistry Honours Written and Oral Skills Part 1</td>
<td>Pre 2012 unit no longer required</td>
</tr>
<tr>
<td>BIOC7408</td>
<td>Biochemistry Honours Written and Oral Skills Part 2</td>
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<table>
<thead>
<tr>
<th>Unit Code</th>
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<tbody>
<tr>
<td>BIOP7701</td>
<td>Biophysics Honours Research Project Part 1</td>
<td>Pre 2012 unit no longer required</td>
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<tr>
<td>BIOP7702</td>
<td>Biophysics Honours Research Project Part 2</td>
<td>Pre 2012 unit no longer required</td>
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<table>
<thead>
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<th>Unit Title</th>
<th>Pre 2012 Unit Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCOM7400</td>
<td>Science Communication Honours Research Part 1</td>
<td>Pre 2012 unit no longer required</td>
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<tr>
<td>SCOM7401</td>
<td>Science Communication Honours Research Part 2</td>
<td>Pre 2012 unit no longer required</td>
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<tr>
<td>CHEM8802</td>
<td>Analytical Chemistry for Elemental Analysis Part 1</td>
<td>Pre 2012 unit no longer required</td>
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<tr>
<td>CHEM8806</td>
<td>Analytical Chemistry for Elemental Analysis Part 2</td>
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<td>CHEM8807</td>
<td>Analytical Chemistry for Elemental Analysis Part 3</td>
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<td>CHEM8808</td>
<td>Analytical Chemistry for Elemental Analysis Part 4</td>
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<td>SCIE2218</td>
<td>Science Practicum</td>
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<td>SCIE3340</td>
<td>ASP Research Project Part 1</td>
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<td>SCIE3341</td>
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### School of Physics

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<th>Unit Title</th>
<th>Pre 2012 Unit Status</th>
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</thead>
<tbody>
<tr>
<td>ANHB7405</td>
<td>Honours Assignment and Final Seminar Part 1</td>
<td>Pre 2012 unit no longer required</td>
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<tr>
<td>ANHB7401</td>
<td>Honours Assignment and Final Seminar Part 2</td>
<td>Pre 2012 unit no longer required</td>
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<tr>
<td>ANHB7407</td>
<td>Honours Project Proposal and Seminar Part 1</td>
<td>Pre 2012 unit no longer required</td>
</tr>
<tr>
<td>ANHB7402</td>
<td>Honours Project Proposal and Seminar Part 2</td>
<td>Pre 2012 unit no longer required</td>
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<tr>
<td>ANHB7409</td>
<td>Honours Research Dissertation and Viva Part 1</td>
<td>Pre 2012 unit no longer required</td>
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<tr>
<td>ANHB7403</td>
<td>Honours Research Dissertation and Viva Part 2</td>
<td>Pre 2012 unit no longer required</td>
</tr>
<tr>
<td>ENRL5571</td>
<td>Fundamentals of Dental Sleep Medicine [DENT6100 UA]</td>
<td>Pre 2012 unit no longer required</td>
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<tr>
<td>ENRL5572</td>
<td>Oral Appliances in Sleep Disordered Breathing [DENT6101 UA]</td>
<td>Pre 2012 unit no longer required</td>
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<tr>
<td>ENRL5573</td>
<td>Dental Sleep Medicine in Practice 1 [DENT6102 UA]</td>
<td>Pre 2012 unit no longer required</td>
</tr>
<tr>
<td>ENRL5574</td>
<td>Dental Sleep Medicine in Practice 1 [DENT6103 UA]</td>
<td>Pre 2012 unit no longer required</td>
</tr>
<tr>
<td>NEUR7400</td>
<td>Neuroscience Honours Literature Review</td>
<td>Pre 2012 unit no longer required</td>
</tr>
<tr>
<td>NEUR7404</td>
<td>Neuroscience Honours Oral Communication Part 1</td>
<td>Pre 2012 unit no longer required</td>
</tr>
<tr>
<td>NEUR7402</td>
<td>Neuroscience Honours Oral Communication Part 2</td>
<td>Pre 2012 unit no longer required</td>
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<tr>
<td>NEUR7405</td>
<td>Neuroscience Honours Research Project Part 1</td>
<td>Pre 2012 unit no longer required</td>
</tr>
<tr>
<td>NEUR7403</td>
<td>Neuroscience Honours Research Project Part 2</td>
<td>Pre 2012 unit no longer required</td>
</tr>
</tbody>
</table>

The Deputy Dean recommends that all units listed in this item be rescinded

### PART III: ITEMS FOR DISCUSSION AND DECISION

10. **FORMATION OF SCIENCE CURRICULUM COMMITTEE AND CONSEQUENT CHANGES TO SCIENCE TEACHING AND LEARNING COMMITTEE**

Following discussions at the Science Teaching and Learning Committee about better ways to deal effectively with curriculum development, pedagogy and related matters and the student experience, the Deputy Dean proposes the formation of a Science Curriculum Committee to focus on curriculum development and curriculum management with the Science Teaching and Learning Committee focussing on pedagogy and other matters relating to teaching plus the student experience. **Attachment B** refers.
The Science Executive Committee has decision making powers with regards faculty governance and can also delegate its powers to other committees and hence is able to approve these changes. The changes are then ratified by Academic Board.

The Deputy Dean will introduce this item.

For discussion and decision

11. PEOPLE, POTENTIAL AND PERFORMANCE – FACULTY OF SCIENCE ACADEMIC STANDARDS

Members have been discussing the Faculty of Science’s proposed academic standards for teaching and research during 2015, including discussion at an informal meeting of Science Executive on 2 June 2015. Comments made at that meeting have now been incorporated into the text. One key issue raised by members was the preference to base the average workload for teaching within and across schools around Level 1 to 3 units – rather than all units. There was a view that small postgraduate units were masking average teaching workload. Updating these tables has required additional information sourced from School Managers.

The attached document (Attachment C) does not yet include revised data sets, but it is anticipated that this will be completed in time for tabling at the meeting.

The document is now much clearer on what represents the performance assessment bands of: (i) failure to meet expectations; (ii) meets expectations; (iii) exceeds expectations and (iv) outstanding. These will be important when considering promotions and sabbatical. Nonetheless, there is still flexibility in the document to support the Heads of School whilst still allowing them to manage individual staff. In terms of timing, by finalising at this meeting, the Faculty will therefore be well placed for future discussions at a Senior Leaders workshop in late June.

The Deputy Dean recommends that the Faculty of Science Academic Standards as reflected in the People, Potential and Performance document (at Attachment C) be approved and be forwarded to the Senior Deputy Vice Chancellor for inclusion in the University’s Academic Standards and Expectations Framework.

For discussion and decision

12. DEPUTY DEAN’S REPORT

Professor Brendan Waddell, Deputy Dean and Chair, will provide a brief report to the Science Executive Committee.

For discussion

PART IV – NEW ITEMS FOR DISCUSSION

Other items for discussion identified at the start of the meeting.

13. ANY OTHER BUSINESS

14. NEXT MEETING

The next meeting of the Science Executive Committee is scheduled for Tuesday, 21 July 2015 at 3:00pm in the Science Boardroom (G108 Agriculture Central).
FACULTY OF SCIENCE
SCIENCE EXECUTIVE COMMITTEE
MINUTES OF THE MEETING HELD ON 19 MAY 2015

PRESENT
Prof Tony O'Donnell, Prof Brendan Waddell, Ms Christine Richardson, Ms Abbe Rorrison, Prof David Pannell, Prof Shane Maloney, Prof Sarah Dunlop, Prof Mark Spackman, Prof Matthew Tonts, Prof Ian McArthur, Prof Tim Colmer, Prof Murray Maybery, Prof Tim Ackland, Prof Kadambot Siddique, A/Prof Peter Hammond, Prof Andrew Page, Prof Shaun Collin, Prof Gary Kendrick, , Ms Kay Horn.

1. WELCOME
The Chair welcomed Professor Kendrick and Ms Horn to the meeting.

2. APOLOGIES
Dr Michael Rosenberg

3. DECLARATIONS OF POTENTIAL OR PERCEIVED CONFLICTS OF INTEREST - REF: F45668
Nil.

4. MINUTES FROM PREVIOUS MEETINGS
It was RESOLVED 100/2015
To confirm the Minutes of the Science Executive Committee meeting held on 29 April 2015 as a true and correct record of that meeting.

5. UPDATE ON ACTION ITEMS

<table>
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</tr>
<tr>
<td>Academic Appointment of Deputy Director for the Australian Herbicide Resistance Initiative</td>
<td>Head of School</td>
<td>Interview process 19 – 21 May</td>
</tr>
<tr>
<td>People, Potential and Performance</td>
<td>Dean</td>
<td>Useful feedback received, for discussion at next informal Science Exec</td>
</tr>
<tr>
<td>Academic Sabbatical</td>
<td>General Manager</td>
<td>Establishing Faculty panel; applications for leave in 2016 due to Faculty Office by 30 June 2015; Sabbatical form now available on HR Forms</td>
</tr>
<tr>
<td>Appointments in NMR (Acad and Prof positions)</td>
<td>HoS SCB, Director CMCA</td>
<td>HoS SCB reports satisfactory outcome to discussions; further follow up with CMCA before proceeding</td>
</tr>
<tr>
<td>Lecturer in Ecology in Plant Biology</td>
<td>HoS Plant Biology</td>
<td>Contract being reviewed; discussions planned with Animal Biology and Earth &amp; Environment</td>
</tr>
<tr>
<td>Professional staff appointment in SSEH</td>
<td>HoS SSEH</td>
<td>Further discussion in progress</td>
</tr>
<tr>
<td>Professional staff appointments in Psychology</td>
<td>HoS Psych</td>
<td>Positions agreed to be advertised as fixed term</td>
</tr>
<tr>
<td>Curriculum items</td>
<td>Deputy Dean</td>
<td>CAIDI being updated</td>
</tr>
</tbody>
</table>
6. HEAD OF SCHOOL ELECT PLANT BIOLOGY

Members noted that, following the selection process for the Head of the School of Plant Biology, the Dean recommended to the SDVC that Professor Gary Kendrick will succeed Professor Tim Colmer effective January 1st 2016. The SDVC has accepted this recommendation.

The Faculty received two excellent candidates for the position and followed a very robust appointments process. This involved early notification to the School at the end of last year, an invitation for feedback and nomination and an offer to meet with staff or groups of staff one on one. We received two nominations and the Dean met with both of them to discuss the position and to ensure that both were aware of the challenges facing the school. At the end of these meetings the Dean felt that both candidates would make an excellent Head of School. In making our final determination the Faculty interviewed both candidates.

The Faculty would like to take this opportunity to acknowledge the excellent work done by Professor Colmer over the last few years. His contributions have been outstanding and the School has benefitted significantly from his skills in navigating an increasingly complex change environment at UWA and in the tertiary sector generally.

CURRICULUM ITEMS FOR APPROVAL

A significant number of items were referred by the Science Teaching and Learning Committee (T&L) to this Committee for final approval. Items 7 through to 75 deal with significant changes to curriculum offerings requiring the approval of the Science Executive Committee.

7. PROPOSED CHANGES TO ADMISSION REQUIREMENTS FOR THE MASTER OF CLINICAL AUDIOLOGY

The School of Anatomy, Physiology and Human Biology proposed changes to the admission requirements for the Master of Clinical Audiology introducing a personal statement, clarification of the Police clearance and specifying a WAM for incoming students.

It was

RESOLVED 31/2015

To approve the changes to the admission requirements for the Master of Clinical Audiology by introducing a personal statement, clarifying the need for a Police clearance; and establishing a minimum WAM of 65 for incoming students.

8. PROPOSED CHANGES TO ADMISSION REQUIREMENTS FOR THE GRADUATE DIPLOMA IN DENTAL SLEEP MEDICINE

The School of Anatomy, Physiology and Human Biology proposed changes to the admission requirements for the Graduate Diploma in Dental Sleep Medicine clarifying the requirements for registration.

It was

RESOLVED 32/2015

To approve the changes to admission requirements for the Graduate Diploma in Dental Sleep Medicine as outlined in Attachment A8 to the Agenda.

9. PROPOSED CHANGES TO ADMISSION REQUIREMENTS FOR THE GRADUATE DIPLOMA IN SPORT AND RECREATION MANAGEMENT

The School of Sport Science, Exercise and Health proposed changes to the admission requirements for the Graduate Diploma in Sport and Recreation Management, removing the requirement for a course weighted average mark of 60% and clarification of prior degree.

It was

RESOLVED 33/2015

To approve the changes to admission requirements for the Graduate Diploma in Sport and Recreation Management as outlined in Attachment A9 to the agenda.
10. RESCISSION OF THE MASTER OF INTEGRATED HUMAN STUDIES, THE GRADUATE DIPLOMA IN HUMAN STUDIES; AND THE GRADUATE CERTIFICATE IN HUMAN STUDIES, ASSOCIATED UNITS AND 2 LEVEL ONE UNATTACHED ELECTIVES

The School of Animal Biology advised that these degrees are no longer being offered and units were taught for the last time in 2014 or 2015.

It was

RESOLVED 34/2015

To rescind of the Master of Integrated Human Studies, the Graduate Diploma in Human Studies and the Graduate Certificate in Human Studies and associated units as indicated in the following table.

<table>
<thead>
<tr>
<th>Unit Code</th>
<th>Unit Name</th>
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<tbody>
<tr>
<td>IHST5801</td>
<td>Humans in a World of Change</td>
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<tr>
<td>IHST5802</td>
<td>Emergence of Twenty-first-century Humanity</td>
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<tr>
<td>IHST5805</td>
<td>Principles and Practice of Integrated Human Studies</td>
</tr>
<tr>
<td>IHST5806</td>
<td>Modes of Inquiry in Integrated Human Studies</td>
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<tr>
<td>IHST5809</td>
<td>Dimensions of the Human Experience</td>
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<tr>
<td>IHST5810</td>
<td>Technologies, Economies and Ecologies of the Twenty-first Century</td>
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<td>IHST5811</td>
<td>Global Values and Lifestyles in the Twenty-first Century</td>
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<tr>
<td>IHST5812</td>
<td>Action, Innovation and Leadership for the Twenty-first Century</td>
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<td>IHST5813</td>
<td>Collaborative Online Inquiry into Twenty-first-century Challenges</td>
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<td>IHST5814</td>
<td>Integrated Human Studies Project Part 1</td>
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<td>Integrated Human Studies Project Part 2</td>
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<td>IHST5825</td>
<td>Humanity in the Twenty-first Century</td>
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<td>IHST1111</td>
<td>Human Action for World Futures</td>
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11. PROPOSED CHANGES TO THE MAJOR IN ANATOMY AND HUMAN BIOLOGY

The Head of School spoke to this and the next two items, and outlined changes to the major in Anatomy and Human Biology and in the Biomedical Science major consequent to the introduction of new Unit ANHB3322 Biology as a level three core unit to be offered every second year. He indicated these majors were already operating at scale and that any impact of this unit on enrolments of other units in these majors would be relatively minor.

The School of Anatomy, Physiology and Human Biology proposed the addition of ANHB3322 Human/Primate Social Organisation as a core option (students select three from four) unit in the major in Anatomy and Human Biology. The proposal is to offer ANHB3322 every second year and in the alternate year students may take ANHB3315 Human Evolutionary Ecology. ANHB3322 and ANHB3315 will not be incompatible and students may choose to take both units if their course plan permits. The learning outcomes for these two units are substantially the same and making them interchangeable will not have any impact on the outcomes for the major.

It was

RESOLVED 35/2015

To approve the changes to the major in Anatomy and Human Biology as outlined in Attachment B1 to the agenda.
12. PROPOSED CHANGES TO THE BIOMEDICAL SCIENCE MAJOR

The School of Anatomy, Physiology and Human Biology proposed the addition of ANHB3322 Human/Primate Social Organisation as a core option (students select three from four) unit in the major in Biomedical Science. The proposal is to offer ANHB3322 every second year and in the alternate year students may take ANHB3315 Human Evolutionary Ecology. ANHB3322 and ANHB3315 will not be incompatible and students may choose to take both units if their course plan permits. The learning outcomes for these two units are the same; therefore, making them interchangeable will not have any impact on the outcomes for the major. The Faculty of Medicine, Dentistry and Health Science have been notified about the proposed change and fully support the proposal.

It was
RESOLVED 36/2015
To approve the changes to the Biomedical Science major as outlined in Attachment B2 to the agenda.

13. NEW UNIT PROPOSAL ANHB3322 HUMAN/PRIMATE SOCIAL ORGANISATION

The School of Anatomy Physiology and Human Biology proposed a new unit ANHB3322 Human/Primate Social Organisation for inclusion in the major in Anatomy and Human Biology as a level three core unit to be offered every second year. ANHB3322 was developed to reflect Associate Professor Cyril C. Grueter's specific expertise in primatology and biological anthropology and its relationship to human biology. There is limited material taught in primatology and biological anthropology within the Bachelor of Science and the unit is expected to appeal strongly to students from a variety of backgrounds. The School wishes to make it possible for students with an interest in human evolutionary biology to take both topics.

It was
RESOLVED 37/2015
To approve the new unit proposal ANHB3322 Human/Primate Social Organisation as outlined in Attachment B3 to the agenda.

14. PROPOSED CHANGES TO THE STRUCTURE OF THE GEOGRAPHY MAJOR

The Head of School of Earth & Environment spoke to this and the next two items, and outlined changes to the majors in Geography, Human Geography & Planning and Natural Resource Management through the introduction of a new unit (GEOG2202 Reading Landscapes: People and Processes) that will increase fieldwork experience and skills for students in these majors. He indicated that an existing third year unit would be suppressed, and hence there was no increase in units. The School also proposed that the name of the Geography major be changed to Geographical Sciences. This title is widely used in the G08 Universities.

The School of Earth and Environment proposed changes to the structure of the major in Geography with the introduction of a new level 2 core unit GEOG2202 Reading Landscapes: People and Processes to replace PLNG2203 Environmental Policy and Planning and to move PLNG2203 to level 3 from 2017. Shortcomings in fieldwork experience were highlighted in the Faculty review of majors. The new unit will increase fieldwork experience and skills for students undertaking majors in Geography, Human Geography and Planning, and Natural Resource Management. Students will be better prepared for level 3 units and the overall educational fieldwork experience will be brought into line with fieldwork undertaken in other equivalent institutions.

It was
RESOLVED 38/2015
To approve the changes to the structure of the Geography major as outlined in Attachment B4 to the agenda.

15. CHANGES TO THE MAJOR IN HUMAN GEOGRAPHY AND PLANNING

The School of Earth and Environment proposed changes to the structure of the major in Human Geography and Planning with the introduction of a new level 2 complementary unit GEOG2202 Reading Landscapes: People and Processes to replace PLNG2203 Environmental Policy and Planning and to move PLNG2203 to level 3 from 2017. Shortcomings in fieldwork experience were highlighted in the Faculty review of majors. The new unit will increase fieldwork experience and skills for students undertaking majors in Geography, Human Geography and Planning, and Natural Resource Management. Students will be better prepared for level 3 units and the overall educational fieldwork experience will be brought into line with fieldwork undertaken in other equivalent institutions.

It was
RESOLVED 39/2015
To approve the changes to the major in Human Geography and Planning as outlined in Attachment B4 to the agenda.
16. CHANGES TO THE MAJOR IN NATURAL RESOURCE MANAGEMENT

The School of Agricultural Economics proposed changes to the major in Natural Resource Management with the introduction of a new level 2 complementary unit GEOG2202 Reading Landscapes: People and Processes to replace PLNG2203 Environmental Policy and Planning and to move PLNG2203 to level 3 from 2017. From 2017 the level three version of PLNG2203 will replace PLNG3303 Regional Development and Planning.

For students in Natural Resource and Management the inclusion of GEOG2202 Reading Landscapes: People and Processes will increase their exposure to fieldwork and biophysical processes. It will also remove a unit (PLNG3303 Regional Development and Planning) from the major that is of marginal relevance.

It was **RESOLVED 40/2015**
To approve the changes to the major in Natural Resource Management as outlined in Attachment B5 to the agenda.

17. PHASE 2 PROPOSAL FOR MASTER OF AGRICULTURAL ECONOMICS ONLINE DEGREE

The Head of School of Agricultural & Resource Economics spoke this item.

The introduction of the Master of Agricultural Economics degree is a key School strategy to grow student enrolments. The degree has been developed for a core target market of international students and the scheduling of units has been developed to prioritise these students. Students from a cognate degree (requiring only 72 points) will start in Term 2 of the first year, but to maintain engagement with this cohort they will be allowed to audit the conversion units offered in Term 1. The proposed degree program will be available in formats ranging from completely online through to an ESOS Act 2000 compliant version (75% face-to-face).

The School is well prepared to deliver an online degree. In 2014 the School experimented with online delivery options for postgraduate units (very positive student feedback) and undergraduate units (mixed student feedback), and all School staff completed the Carpe Diem workshop process. Building on this knowledge and with financial assistance from Yarra Pilbara, in 2015 the School developed and delivered a MOOC on Agriculture, Economics, and Nature (3,200 enrolled students, very high completion rate of 23%).

It was **RESOLVED 41/2015**
To approve the phase 2 proposal for Master of Agricultural Economics Online Degree as outlined in Attachment B8 to the agenda.

18. PHASE 2 PROPOSAL FOR THE MASTER OF CLINICAL EXERCISE PHYSIOLOGY

The Head of School of Sport Science and Exercise Health introduced this proposal which was focussed towards international markets.

The Master of Clinical Exercise Physiology is designed to provide a holistic understanding of the use of exercise as a modality in the treatment of musculoskeletal, cardiovascular, metabolic and other chronic and complex conditions. Graduates will be eligible to seek accreditation by the professional body Exercise and Sports Science Australia (ESSA) enabling them to seek employment as Exercise Physiologists (EPs). EPs prescribe exercise for people with chronic and complex medical conditions and have provider status with the Health Insurance Commission (Medicare), as well as many private and government health and compensable insurance schemes.

The course is designed so that students may follow a study plan which is best tailored to their future requirements and area of specialisation.

It was **RESOLVED 42/2015**
To approve the phase 2 proposal for the Master of Clinical Exercise Physiology as outlined in Attach B9 to the agenda.
19. PHASE TWO PROPOSAL FOR DOUBLE MAJOR IN PSYCHOLOGY

The Head of School of Psychology introduced this item and outlined how this structure fitted well to the nationally accredited sequence as well as simplifying issues for students studying the majors Psychology in Society and Psychological Science who have required rule waivers to ensure timely completion.

The School of Psychology proposed that

- The professionally accredited sequence be introduced as a double major in Psychology comprising 13 units (2 + 3 + 8)
- Majors in Psychology in Society and Psychological Science be made less restrictive by increasing choice of option units, particularly at second-year level
- To remove the option that any psychology units be offered as a broadening unit to students studying one of the majors in psychology

It was

RESOLVED 43/2015
To approve the phase two proposal for double major in Psychology as outlined in Attachment B10 to the agenda.

20. PROPOSAL FOR NEW COURSE HONOURS IN SCIENCE COMMUNICATION

The Head of the School of Animal Biology introduced this and the next item indicating that there was strong outside interest for Cycle 2 courses in this area and that it was an area of focus within the School.

The School of Animal Biology proposed a new courses honours course in Science Communication. Although numbers in this course appear low, there is a demand for honours in Science Communication forcing students to undertake this honours course through other disciplines. Aside from supervision of the honours projects there is no additional teaching load created by having the honours program as the coursework options are shared with the Master’s degree or units offered by other schools or faculties.

It was

RESOLVED 44/2015
To approve the new honours course in Science Communication as outlined in Attachment C1 to the agenda.

21. PROPOSED CHANGES TO THE MASTER OF SCIENCE COMMUNICATION

The School of Animal Biology proposed changes to the Master of Science Communication to bring the structure in line with the 96-72pt maximum minimum volume of learning structure. The changes have been designed to work with existing resources (i.e. no new staff are needed to manage the Masters). The proposal is to change the degree type to ‘Masters by Coursework or Coursework and Dissertation’ to introduce a minimum academic standard for research students; introduce conversion units from the undergraduate major and two new postgraduate coursework units. Core units SCOM5308 Peer Review and SCOMS302 Contemporary Issues in Science Communication will ensure that students have a strong grounding in disciplinary thinking and methodology in Science Communication.

It was

RESOLVED 45/2015
To approve the changes to the Master of Science Communication as outlined in Attachment C2 to the agenda.

22. PROPOSED CHANGES TO THE STRUCTURE OF THE MASTER OF ECOTOURISM

The Deputy Dean introduced this item.

The Centre of Excellence in Natural Resource Management proposed to change the Master of Ecotourism from a coursework only degree to a coursework and dissertation degree. Under the new structure all students will be required to complete a 24 point dissertation project and select only one option (previously students selected five options). The change to the structure will make delivery more sustainable with low student enrolments.

It was

RESOLVED 46/2015
To approve the changes to the structure of the Master of Ecotourism as outlined in Attachment C3 to the agenda.
23. CHANGES TO THE MASTER OF AGRICULTURAL SCIENCE

The Head of School of Plant Biology introduced this item and indicated that there would be further development of this course and its specialisations in consultation with other schools involved in teaching this degree.

The School of Plant Biology in consultation with the Schools of Earth Environment, Agricultural and Resource Economics and Animal Biology propose minor changes to the structure of the Master of Agricultural Science. The changes address immediate problems created by changes to unit availability and will improve the cohesiveness of the structure. Most significantly the core has been reduced to two units by removing AGRI4401 Advanced Crop Production and AGRI4401 included in each specialisation core except for Agricultural Economics. The four Schools that contribute to the Master of Agricultural Science will continue to review the structure of the degree and anticipate further modifications for 2017.

It was
RESOLVED 47/2015

24. PROPOSED CHANGES TO MASTER OF BIOTECHNOLOGY

The School of Earth and Environment in consultation with the Schools of Plant Biology, the School of Agricultural and Resource Economics and the School of Chemistry and Biochemistry proposed changes to the structure of the Master of Biotechnology. In summary changes are: deleting units from the option list, rationalising the specialisations for Genetics and Breeding and Biochemistry and Molecular Biology and major changes to the core.

As there is uncertainty about whether MGMT5639 will be offered in 2016, it is proposed that MGMT5639 Commercialisation Management Project is moved from the core to the option list for each specialisation. Removing MGMT5639 unit reduces the core to 18 points however more significantly it has diminished the visibility of commercialisation in the core. The strength of the original proposal and subsequently the marketing campaign has been the combination of commercialisation and science. In 2015 there have also been issues with MKTG5604 Biotechnology and low student numbers have meant that the unit is not being delivered as a standalone unit however arrangements have been made for the Biotechnology cohort to take classes alongside an MBA cohort and to be assessed in line with the outcomes for MKTG5604. Discussions have been held with the Business School about the inclusion of an additional 6 point unit for the core to enhance the commercialisation the degree and although the personnel are very keen to assist they have not come up with a firm option.

The proposal is to replace MGMT5639 in the core with a new 6 point unit SCIE5002 Introduction to Biotechnology Commercialisation to complement MKTG5604 Biotechnology Commercialisation. Broadly the intention is for this unit to introduce students to processes involved in commercialisation through case studies and using expertise from the Office of Research Enterprise.

It was
RESOLVED 48/2015

To approve the changes to Master of Biotechnology as outlined in Attachment C5 to the agenda

25. PROPOSED CHANGES TO THE MASTER OF BIOLOGICAL SCIENCE

The School of Plant Biology in consultation with the School of Animal Biology and the School of Earth and Environment propose minor changes to the structure of the Master of Biological Science. The changes address issues associated with prerequisites and will also improve the selection of option units and the structure of the Conservation Biology specialisation. The initial discussions have highlighted other issues particularly in relation to the availability of units in the Marine Biology discipline. As a consequence of this revision the School of Animal Biology are proposing that two level 4 units in the Zoology specialisation (BIOL4402 Conservation Genetics and ANIM4401 Vertebrate Development) become level 5 units in order that students in this degree taking Zoology will take 50% of their units at level 5. The review process will continue through 2015 with the expectation that further modifications will be proposed for 2017.

It was
RESOLVED 49/2015

To approve the changes to the Master of Biological Science as outlined in Attachment C6 to the agenda
26. PROPOSED CHANGES TO COURSE STRUCTURE FOR THE GRADUATE DIPLOMA IN SPORT AND RECREATION MANAGEMENT

In response to a request from the Business School that this course comprises less than 50% Business School units in order to meet the accreditation requirements, the School of Sport Science, Exercise and Health proposed changes to unit sequence rules in the table below.

It was
RESOLVED 50/2015
To approve the changes to course structure for the Graduate Diploma in Sport and Recreation Management as outlined in Attachment C7 to the agenda.

27. PROPOSED CHANGES TO THE MASTER OF EXERCISE SCIENCE

The Head of School of Sport Science, Exercise and Health introduced this item as a major change to the structure and one that would increase attractiveness to international markets as well as adding a dissertation option to facilitate transition to PhD. He noted that this change required no new units.

The School of Sport Science, Exercise and Health propose changing the Master of Exercise Science from a coursework only degree to a degree by coursework and dissertation or coursework. The proposal is also to change the minimum volume of learning from 96 to 72 points creating space for up to four conversion units where appropriate. Students in the Master of Exercise Science currently specialise in Behavioural Science or Biological Science, in the revised structure students will specialise in Sport and Exercise Science or Sport and Recreation Management. The addition of the coursework and dissertation option will also allow selected students to prepare for an HDR following graduation from the Master of Exercise Science.

It was
RESOLVED 51/2015
To approve the changes to the Master of Exercise Science as outlined in Attachment C8 to the agenda.

28. PROPOSED CHANGES TO STRUCTURE OF THE MASTER OF GEOSCIENCE

The Head of School of Earth and Environment introduced this and the next two items which involved pragmatic changes to the structure of courses to manage cohorts better as well as involving the introduction of new units that capitalized on expertise within the School.

The School of Earth and Environment proposed changes to the option unit list for the Master of Geoscience. In 2014 a decision was made to make the dissertation project non-compulsory and at the time it was acknowledged that more options were required to cater for coursework only students. This proposal replaces four generic dissertation units with four discipline specific units to address the challenge in keeping track of discipline cohorts. It also specifies co-requisite and pre-requisite unit rules to ensure that Parts 1 & 2 and Parts 3 & 4 are taken together over two consecutive semesters addressing the concern about students taking the project in one academic year and in addition a unit rule to ensure that the dissertation units are taken in the second year of the degree.

It was
RESOLVED 52/2015
To approve the changes to structure of the Master Of Geoscience as outlined in Attachment C9 to the agenda.

29. CHANGES TO THE MASTER OF ORE DEPOSIT GEOLOGY

The School of Earth and Environment proposed changes to the unit sequence for the Master of Ore Deposit Geology with the introduction of two new geoscience units also relevant for students enrolled in Ore Deposit Geology. These units are complementary to units already offered at UWA and other institutions.

It was
RESOLVED 53/2015
To approve the changes to the Master of Ore Deposit Geology as outlined in Attachment D1 to the agenda.
30. PROPOSED CHANGES TO THE STRUCTURE TO THE MASTER OF ENVIRONMENTAL SCIENCE, THE MASTER OF GEOGRAPHIC INFORMATION SCIENCE, THE MASTER OF INTERNATIONAL DEVELOPMENT SPECIALISING IN DEVELOPMENT AND POLICY PRACTICE; AND THE MASTER OF URBAN AND REGIONAL PLANNING

The School of Earth and Environment proposed replacing four 6 point generic dissertation units with four broad discipline specific units in the Master of Environmental Science, The Master of International Development specialisation in Development Policy and Planning and the Master of Urban and Regional Planning to address the challenge in keeping track of discipline cohorts. The proposal specified the inclusion of co-requisite and pre-requisite unit rules to ensure that Parts 1 & 2 and Parts 3 & 4 are taken together over two consecutive semesters addressing the concern about students taking the project in one academic year. For the Master of International Development specialisation in Development Policy and Planning, there would be no change.

It was RESOLVED 54/2015 to approve the changes to the structure to the Master of Environmental Science, the Master of Geographic Information Science, the Master of International Development Specialising in Development and Policy Practice; and the Master of Urban and Regional Planning as outlined in Attachments D2, D3 and D4 to the agenda.

31. PROPOSED CHANGES TO THE COURSE STRUCTURE OF THE GRADUATE DIPLOMA IN DENTAL SLEEP MEDICINE

The Head of School of Anatomy, Physiology and Human Biology introduced this item and indicated the intent was to rationalise units offered by the School.

The School of Anatomy, Physiology and Human Biology proposed changes to the Graduate Diploma in Dental Sleep Medicine replace ANHB5531 Research and Biostatistics for Dental Sleep Medicine with ANHB5456 Clinical Research and Biostatistics to rationalise the number of units offered by the school. ANHB5531 Research and Biostatistics will not be offered in 2016. ANHB5456 Clinical Research and Biostatistics is also a core unit in the Graduate Diploma in Sleep Science.

It was RESOLVED 55/2015 To approve the proposed changes to the course structure of the Graduate Diploma in Dental Sleep Medicine as outlined in Attachment D6 to the agenda.

32. PROPOSED CHANGES TO THE COURSE STRUCTURE FOR HONOURS IN ZOOLOGY

The Head of School of Animal Biology introduced this item and indicated that the proposal was in reaction to student feedback and that this structure followed that for Neuroscience honours and was well suited to transition to the PhD. She noted that there was also available to students a parallel Masters course, with CSP funded places.

The School of Animal Biology proposed changes to the structure of the course in Zoology honours by replacing two option units with research training units ANIM4005 Communicating Science and ANIM4006 Research Development, which will closely align with the student’s research project. The two new units will be used to formalise teaching research development and the communication of science in the context of the research project. The introduction of these units better integrates the student’s learning experience as it is centred on their area of interest, while still teaching them basic and universally applicable research and communication skills. It is expected this approach will positively impact on student retention rates towards HDR. The School of Animal Biology are also proposing the introduction of newly coded and named dissertation units to reflect the change in administration of honours programmes.

It was RESOLVED 56/2015 To approve the changes to the course structure for honours in Zoology as outlined in Attachment D7 to the agenda.
33. PROPOSED CHANGES TO THE COURSE STRUCTURE FOR HONOURS IN BOTANY

The Head of the School of Plant Biology introduced this item and indicated that this proposal very much mirrored that presented by Animal Biology. He indicated there was a need for ongoing consultation regarding cross-school Honours in agricultural science, marine science and conservation biology.

The School of Plant Biology proposed changes to the structure of the course in Botany honours. The School believes that the needs of honours graduates in the field of Botany are best met by a 24 point research project (4 x 6 point units) underpinned by two research training units, and are proposing the introduction of PLNT4511 Plant Biology Research Project Development and PLNT4512 Plant Biology Research Presentation to replace two option units. The current structure does not seem to provide students with the necessary skills at the high level expected by stakeholders. The writing of a research proposal provides an excellent opportunity to examine a field of research interest in great depth. Students taking PLNT4511 Plant Biology Research Project Development and PLNT4512 Plant Biology Research Presentation alongside the 24 point project will receive an excellent level of research training. The School of Plant Biology are also proposing the introduction of newly coded and named dissertation units to reflect the change in administration of honours programmes.

It was RESOLVED 57/2015
To approve the changes to the course structure for honours in Botany as outlined in Attachment D8 to the agenda

34. PROPOSED CHANGES TO THE COURSE STRUCTURE OF HONOURS IN ANATOMY AND HUMAN BIOLOGY, HONOURS IN PHYSIOLOGY AND HONOURS IN NEUROSCIENCE

The Head of School of Anatomy, Physiology and Human Biology introduced these changes as those necessary to facilitate the transition of Honours students to a 72 point Masters.

The School of Anatomy, Physiology and Human Biology proposed the introduction of new Level 5 alternative units APHB5516 & APHB5517 Honours/Masters Dissertation Part 3 & 4 and NEUR5516 & NEUR5517 Honours/Masters Dissertation Part 3 & 4. The intention is for students in honours in Anatomy and Human Biology, honours in Physiology or honours in Neuroscience courses who intend to transition to the Masters degrees to have completed at least 2 units in their honours sequence at level 5. These students will still have to comply with course rules for Masters degrees.

It was RESOLVED 58/2015
To approve the proposed changes to the course structure of honours in Anatomy and Human Biology, honours in Physiology and honours in Neuroscience as outlined in Attachments D9, E1 and E2 to the agenda

35. PROPOSED CHANGE TO THE STRUCTURE OF HONOURS IN GEOGRAPHY, HONOURS IN URBAN AND REGIONAL PLANNING AND HONOURS IN ENVIRONMENTAL SCIENCE

The Head of School of Earth and Environment introduced this item as similar in intent to items previously discussed.

The School of Earth and Environment proposed changes to the structure of honours in Geography, Urban and Regional Planning and Environmental Science by replacing four generic dissertation units with four broad discipline specific units for honours in Geography, Environmental Science and Urban and Regional Planning, to address the challenge in keeping track of discipline cohorts. The proposal specified the inclusion of co-requisite and pre-requisite unit rules to ensure that Parts 1 & 2 and Parts 3 & 4 are taken together over two consecutive semesters addressing the concern about students taking the project in one academic year.

It was RESOLVED 59/2015
To approve the proposed change to the structure of honours in Geography, honours in Urban and Regional Planning and honours in Environmental Science as outlined in Attachment E3, E4 and E5 to the agenda.

36. PROPOSED CHANGE TO THE STRUCTURE OF HONOURS IN GEOLOGY, HONOURS IN HYDROGEOLOGY AND HONOURS IN GEOPHYSICS

The Head of School of Earth and Environment introduced this item as similar in intent to items previously discussed.

The School of Earth and Environment proposed changes to the structure of honours in Geology, Hydrogeology and Geophysics by replacing four generic dissertation units with four discipline specific units for honours in Geology, Hydrogeology, and Geophysics, to address the challenge in keeping track of discipline cohorts. The proposal
specified the inclusion of co-requisite and pre-requisite unit rules to ensure that Parts 1 & 2 and Parts 3 & 4 are taken together over two consecutive semesters addressing the concern about students taking the project in one academic year. In addition the school proposed the addition of GEO5506 Structural Analysis for Petroleum Geoscience and GEO5507 Analytical techniques for the Geosciences to the option list for honours in Geology.

It was
RESOLVED 60/2015
To approve the proposed change to the structure of honours in Geology, honours in Hydrogeology and honours in Geophysics as outlined in Attachments E6, E7 and E8 to the agenda.

37. CHANGE TO COURSE RULE FOR ELIGIBILITY OF DISSERTATION PROJECT

The Deputy Dean introduced this item as quite trivial wording changes to improve rule clarity.

In 2014 a number of new Masters degrees were introduced with an optional 24 point dissertation and the rules for existing degrees modified to reflect an optional dissertation. The Science Student Office proposed a minor change to the course rule for eligibility of dissertation project to improve clarity and take account of conversion units, for the degrees listed below.

It was
RESOLVED 61/2015
To approve the minor change to the course rule for eligibility of dissertation project for the degrees listed (Research Project rule 11), with effect 2016:

Degrees:

<table>
<thead>
<tr>
<th>Degree Code</th>
<th>Degree Name</th>
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<tbody>
<tr>
<td>72530</td>
<td>Master of Environmental Science</td>
</tr>
<tr>
<td>72560</td>
<td>Master of Urban and Regional Planning</td>
</tr>
<tr>
<td>71550</td>
<td>Master of International Development</td>
</tr>
<tr>
<td>72540</td>
<td>Master of Hydrogeology</td>
</tr>
<tr>
<td>71570</td>
<td>Master of Geographic Information Science</td>
</tr>
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<td>71520</td>
<td>Master of Biomedical Science</td>
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<td>72520</td>
<td>Master of Biological Science</td>
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<tr>
<td>71580</td>
<td>Master of Biotechnology</td>
</tr>
<tr>
<td>71580</td>
<td>Master of Exercise Science</td>
</tr>
</tbody>
</table>

Research Project Rule 11:
Students who want to undertake a research project as an optional unit must have;
(i) have a weighted average mark of at least 65 per cent in at least 24 points of Level 3 units in their UWA undergraduate major. These units must be relevant to the Masters Specialisation; or
(ii) have a weighted average mark of at least 65 per cent in at least 24 points of Level 3, 4 and 5 units completed within the course; or
(iii) equivalent as recognised by the Faculty; and
a supervisor, approved by the Faculty, must have confirmed their willingness and availability to supervise the research project.

38. TWO NEW UNIT PROPOSALS - ENVT1103 NATURAL HISTORY AND ENVT3310 CROSS-CULTURAL BIODIVERSITY SCIENCE

The Centre of Excellence for Natural Resource Management proposed the introduction of two new undergraduate units as unattached electives to be offered to students in Albany and Crawley. The Albany component of both these units is a field trip, all other content will be delivered online. There are a number of other undergraduate units similarly offered where students undertake field work in Albany. The addition of two more Albany units will support the objective of facilitating a study experience away from home for Crawley based students. This concept is presently being explored, and has involved consultation at executive level. The Global Learning Office (formerly Study Abroad) sees this as an attractive option for inbound study abroad students. Negotiations are taking place with the City of Albany and other stakeholders to secure permanent student accommodation in the long term.

ENVT1103 Natural History
It is envisaged that the proposal of this unit as a Category A broadening unit satisfies two aims: (i) an increase in the choice of Category A broadening units and electives for local, Albany-based students, and (ii) provide an opportunity for students from Crawley early in their degree to experience study away from home.
ENVT3310 Cross-Cultural Biodiversity Science

This unit is designed to attract students with an interest in pursuing a research career in that field of theory and practice of cross-cultural biodiversity science. It will also provide students who wish to spend six months in Albany an attractive, field-based experience.

Members suggested that a more appealing name might be found for ENVT3310.

It was

RESOLVED 62/2015
To approve the two new units - ENVT1103 Natural History and ENVT3310 Cross-Cultural Biodiversity Science— as outlined in Attachments E9 and F1 to the agenda.

39. NEW UNIT PROPOSAL FOR ENVT5550 MASTERS RESEARCH PROJECT

The Centre of Excellence for Natural Resource Management proposed a new ENVT5550 Masters Research Project unit for inbound study abroad students completing research at the Albany Centre. Over the past couple of years special units have been created for students coming from Bristol University and this unit will negate the need to create a special unit. The Centre also envisages that this unit will be undertaken by students from universities other than Bristol.

It was

RESOLVED 63/2015
To approve the new unit ENVT5550 Masters Research Project as outlined in Attachment F2 to the agenda

40. NEW UNIT PROPOSAL GEOG2202 READING LANDSCAPES: PEOPLE AND PROCESSES

The School of Earth and Environment proposed a new unit GEOG2202 Reading Landscapes: People and Processes for inclusion in the majors in Geographical Science, Human Geography and Planning and Natural Resource Management. GEOG2202 is being proposed in response to the need for an increase in the level of fieldwork experience and skills amongst students undertaking majors in Geography, Human Geography and Planning, and Natural Resource Management. One of the major weaknesses identified in recent reviews of the two geography majors is that the only field experience that students have is a handful of day trips in Levels 1 and 2, and a residential trip in their last semester of Level 3. This is far less field education than a student would undertake at an equivalent institution, and is hindering students’ educational experience. Importantly, it impacts on teaching in some Level 3 units where prior fieldwork experience would enhance teaching.

It was

RESOLVED 64/2015
To approve the new unit GEOG2202 Reading Landscapes: People and Processes as outlined in Attachment F4 to the agenda

41. NEW UNIT PROPOSAL SCIE5002 INTRODUCTION TO BIOTECHNOLOGY COMMERCIALISATION

The Faculty of Science proposed the introduction of a new unit SCIE5002 Introduction to Biotechnology Commercialisation. The unit combines a mixture of case study research, a guest seminar series and in house lectures to familiarise students with best practice for commercialisation of Biotechnology developments. Students will be grounded in successful and unsuccessful commercialisation attempts through lectures and case study research before progressing onto their own assessment by taking a technology or idea through business planning, protection and marketing. This unit will introduce students to processes involved in commercialisation through case studies and using expertise from the Office of Research Enterprise.

It was

RESOLVED 65/2015
To approve the new unit SCIE5002 Introduction to Biotechnology Commercialisation as outlined in Attachment F5 to the agenda.

42. NEW UNIT PROPOSAL ANIM4001/4002/4003/4004 ZOOLOGY DISSERTATION PART 1, 2, 3, 4

The School of Animal Biology proposed a new 24 point dissertation for enrolment in the Zoology Honours. These units are taken over two successive semesters and parts 1 to 4 must be completed to fulfill the requirements of the unit. Students can commence the unit in either semester 1 or semester 2. Parts 1-4 of the Research Dissertation are the application and iterative refinement of the “Research Development” unit. They encompass the “active”
component of the research project – the laboratory work, interviews, measurement, fieldwork, analysis of data gathered from the experimental phase of the research project and development of an interpretative discussion of the findings. The units are conducted under the guidance of the supervisor and with feedback provided in the final seminar presented in the unit "Communicating Science". The units culminate in the submission of the completed research paper for evaluation.

It was RESOLVED 66/2015 to approve the new unit ANIM4001/4002/4003/4004 Zoology Dissertation Part 1, 2, 3, 4 as outlined in Attachment F6 to the agenda.

43. NEW UNIT PROPOSAL ANIM4005 ZOOLOGY RESEARCH PRESENTATION SKILLS

The School of Animal Biology proposed a new unit ANIM4005 Zoology Research Presentation Skills for students completing honours in Zoology in 2016. This unit requires students’ participation in research group meetings, attendance at the School of Animal Biology Seminar series, and attendance at the School of Animal Biology Postgraduate seminar series are all compulsory elements of this unit. Students will lead a discussion group following each seminar, which will allow them to reflect on its general scientific value and on its effectiveness in communicating that science to a specialist audience. Students will attend a formal workshop on the oral communication of science, which will prepare them to present their own final seminar to the School based on their research practicum and to defend their thesis in a final viva examination. Students also complete a workshop on communicating science to the general public and produce an article in the style of "The Conversation" based on their own research dissertation. Available semester 1 and 2, 2016.

It was RESOLVED 67/2015 To approve the new unit ANIM4005 Zoology Research Presentation Skills as outlined in Attachment F7 to the agenda.

44. NEW UNIT PROPOSAL ANIM4006 ZOOLOGY RESEARCH DEVELOPMENT

The School of Animal Biology proposed a new unit ANIM4006 Zoology Research Development for students completing Honours in Zoology in 2016. This unit includes an induction process which contains demonstrations relating to safety procedures and responsibilities in the use of laboratories, special equipment and chemicals, in field work and in the use of vehicles. Instruction is provided in issues relating to human and animal ethics, confidentiality and other legal requirements governing research. The core of the unit consists of supervisor supported identification and reading of the literature relevant to a selected area of Zoology, development of a critical review of the literature and, where appropriate, a specific set of aims and hypotheses. Students will receive formal instruction in searching data bases such as Web of Science, the practice of scientific writing and complete formative writing exercises prior to submission of a literature review. Students will also receive training in critically evaluating, analysing and interpreting Zoology literature by engaging in a formal process of peer-review and the written review of a fellow student’s literature review draft.

It was RESOLVED 68/2015 To approve the new unit ANIM4006 Zoology Research Development as outlined in Attachment F8 to the agenda.

45. NEW UNIT PROPOSAL APHB5516/APHB5517 AND NEUR5516/5517 HONOURS/MASTERS DISSERTATION PART 1, 2, 3 & 4

The School of Anatomy, Physiology and Human Biology proposed a new 24 point dissertation for students enrolling in Honours and Masters courses in 2016.

It was RESOLVED 69/2015 To approve the new unit proposal APHB5516/APHB5517 and Neur5516/5517 Honours/Masters Dissertation Part 1, 2, 3 & 4 as outlined in Attachment F9, G1 to the agenda.
46. **NEW UNIT PROPOSAL ECON4001 AGRICULTURAL TRADE AND COMMODITY MARKETS**

The School of Agricultural and Resource Economics proposed a new unit ECON4001 Agricultural Trade and Commodity Markets for students to take in Master of Agriculture Economics. The content of this unit is largely drawn from ECON3300 Agricultural Economics and Marketing. However, the unit is taught at postgraduate level, drawing on the skills and professional experiences of students and placing greater emphasis on interpretation of material and practical applications. The unit has two components. In the first component students are introduced to the purpose, operation, and use of commodity futures and options markets. The second component focuses on international agricultural trade, trade theory models with applications to agriculture, and public policies and government programs affecting agricultural trade. Non-standard teaching period unit.

It was **RESOLVED 70/2015**

To approve the new unit ECON4001 Agricultural Trade and Commodity Markets as outlined in Attachment G2 to the agenda.

47. **NEW UNIT PROPOSAL ECON4002 CORE CONCEPTS IN AGRICULTURAL AND APPLIED ECONOMICS**

The School of Agricultural and Resource Economics proposed a new unit ECON4002 Core Concepts in Agricultural and Applied Economics for students to take in Master of Agriculture Economics and Honours in Natural Resource Management. The focus of this unit is on the methods and techniques that can be used to: (1) gain insights on future developments in consumer and producer markets; and (2) understand the impact of key policy changes on consumers and producers. Topics covered in the unit include how to evaluate policy actions such as the introduction of a tax or joining a free trade area; the relationship between commodity stock levels and commodity price levels; how to establish relationships between consumer goods and the growth prospects for different goods; optimal resource allocation within a firm across different production inputs; the role of economies of scale in production; game theory models of pricing; and decision making under uncertainty. Non-standard teaching period unit.

It was **RESOLVED 71/2015**

to approve the new unit ECON4002 Core Concepts in Agricultural and Applied Economics as outlined in Attachment G3 to the agenda.

48. **NEW UNIT PROPOSAL ECON5003 FUNDAMENTAL MICROECONOMICS FOR AGRICULTURE AND POLICY**

The School of Agricultural and Resource Economics proposed a new unit ECON5003 Fundamental Microeconomics for Agriculture and Policy for students to take in the Master of Agricultural Economics or Master of Economics or Honours in Natural Resource Management or the Business School (Economics). This unit focuses on advanced concepts in agricultural and applied economics and uses a formal approach to concepts. Real world applications are used as a motivation but rather than the interpretation of results it is the derivation of results that is emphasised. The focus of the first half of the unit is on deriving the key insights from modelling individuals as utility maximising agents and firms as profit maximising entities. Applications that allow the measurement of welfare gains from trade are emphasised. Models of production under discrete time and continuous time are then considered, as are production efficiency measures. The final part of the unit focuses on the theory that underlies models that seek to establish values for goods with no observable market price. Non-standard teaching period unit.

It was **RESOLVED 72/2015**

to approve the new unit proposal ECON5003 Fundamental Microeconomics for Agriculture and Policy as outlined in Attachment G4 to the agenda.

49. **NEW UNIT PROPOSAL ECON5004 MICROECONOMETRIC MODELS FOR AGRICULTURE AND NATURAL RESOURCES**

The School of Agricultural and Resource Economics proposed a new unit ECON5004 Microeconometric Models for Agriculture and Natural Resources for student to take in the Master of Agricultural Economics (or Master of Agricultural Science). This unit focuses on the estimation techniques common in the field of Agricultural Economics: instrumental variables approaches; time series models, panel data methods, demand system methods, stochastic frontier models, and discrete choice models. The unit blends theory and applications. Students are given the opportunity, through the research assignment, to develop in-depth knowledge of one particular technique. Non-standard teaching period unit.
It was
RESOLVED 73/2015
to approve the new unit proposal ECON5004 Microeconometric Models for Agriculture and Natural Resources as outlined in Attachment G5 to the agenda.

50. NEW UNIT PROPOSAL SCIE5001 FARMING SYSTEMS ANALYSIS

The School of Agricultural and Resource Economics proposed a new unit SCIE5001 Farming Systems Analysis for students to take in the Master Agricultural Science or Master Agricultural Economics or Honours in Science. In this postgraduate unit, students will consider various components of Australian agricultural systems:

- The biophysical ‘production system’ of crops, pastures, animals, soils and climate;
- The human ‘management system’ that is made up of people, values, goals, knowledge, resources, monitoring opportunities, and decision making; and
- The ‘economic system’ that consists of market prices, farm finances, planning and profitability.

This unit provides students with an understanding of farming systems analyses that integrate biophysical analysis, agricultural management and economics.

It was
RESOLVED 74/2015
to approve the new unit SCIE5001 Farming Systems Analysis as outlined in Attachment G6 to the agenda.

51. NEW UNIT PROPOSAL ECON5005 PRODUCTION ECONOMICS AND EFFICIENCY ANALYSIS

The School of Agricultural and Resource Economics proposed a new unit ECON5005 Production Economics and Efficiency Analysis for students in the Master of Agricultural Economics or Master of Economics or Master of Agricultural Science. This is an advanced unit focusing on the economics of producer behaviour and the analysis of efficiency and productivity change, with emphasis on empirical applications to agriculture, environmental management, manufacturing and service sectors. Included in the unit are topics on: models of production; cost, revenue and profit optimisation; input demand and product supply responses; and the effect of technological progress and the production environment on performance. Production frontier estimation techniques covered include data envelopment analysis (DEA), stochastic frontier analysis (SFA), and distance (radial and directional) function models of multi-input multi-output production processes.

It was
RESOLVED 75/2015
to approve the new unit ECON5005 Production Economics and Efficiency Analysis as outlined in Attachment G7 to the agenda.

52. NEW UNIT PROPOSAL ECON5006 TOPICS IN AGRICULTURAL ECONOMICS

The School of Agriculture and Resource Economics proposed a new unit ECON5006 Topics in Agricultural Economics for students in the Master of Agricultural Economics. The applied agricultural economist spends a great deal of time researching and drafting short reports for a lay audience. This unit involves completion of a short research project where the key final output is a research report on a topical issue that can be understood by a lay audience supported by a technical appendix. Topics are developed in conjunction with the student and industry partners.

It was
RESOLVED 76/2015
To approve the new unit ECON5006 Topics in Agricultural Economics as outlined in Attachment G8 to the agenda.

53. NEW UNIT PROPOSAL GEOG4011/4012 HONOURS RESEARCH PROJECT IN GEOGRAPHY, ENVIRONMENT AND PLANNING PART 1 & 2

The School of Earth and Environment proposed the introduction of two new 12 point dissertation units for inclusion in the honours sequence for Geography, Environmental Science and Urban and Regional Planning. During the Teaching and Learning meeting the proposal was revised by the school representative and the Teaching and Learning committee endorsed a proposal to replace four generic dissertation units with four broad discipline specific units for honours in Geography, Environmental Science and Urban and Regional Planning.
It was RESOLVED 77/2015
to approve the new unit GEOG4011/4012 Honours Research Project in Geography, Environment and Planning Part 1 & 2 as outlined in Attachment G9 to the agenda.

54. NEW UNIT PROPOSAL GEOG5011/5012 MASTERS RESEARCH PROJECT IN GEOGRAPHY, ENVIRONMENT AND PLANNING PART 1 & 2

The School of Earth and Environment proposed the introduction of two new 12 point dissertation units for inclusion in the Master of Environmental Science (72530), Master of Geographic Information Science (71570), Master of International Development specialising in Development Policy and Practice (71550) and Master of Urban and Regional Planning (72560)

During the Teaching and Learning meeting the proposal was revised by the school representative and the Teaching and Learning committee endorsed a proposal to replace four generic dissertation units with four broad discipline specific units for the Master of Environmental Science, Master of Geographic Information Science and the Master of Urban and Regional Planning. For the Master of International Development specialisation in Development Policy and Planning, there would be no change.

It was RESOLVED 78/2015
to approve the new unit GEOG5011/5012 Masters Research Project in Geography, Environment and Planning Part 1 & 2 as outlined in Attachment H1 to the agenda.

55. NEW UNIT PROPOSAL GEOS4011/4012 HONOURS RESEARCH PROJECT PART 1 & 2

The School of Earth and Environment proposed the introduction of two new 12 point dissertation units for inclusion in the honours sequence for Hydrogeology, Geophysics and Geology. During the Teaching and Learning meeting the proposal was revised by the school representative and the Teaching and Learning committee endorsed a proposal to replace four generic dissertation units with four discipline specific units for honours in Geology, Hydrogeology, and Geophysics.

It was RESOLVED 79/2015
to approve the new unit GEOS4011/4012 Honours Research Project Part 1 & 2 as outlined in Attachment H2, H3 and H3a to the agenda.

56. NEW UNIT PROPOSAL GEOS5011/5012 MASTERS RESEARCH PROJECT IN GEOSCIENCE PART 1 & 2

The School of Earth and Environment proposed the introduction of two new 12 point dissertation units GEOG5011 for inclusion in the Master of Geoscience. During the Teaching and Learning meeting the proposal was revised by the school representative and the Teaching and Learning committee endorsed a proposal to replace four generic dissertation units with four discipline specific units.

It was RESOLVED 80/2015
to approve the new unit GEOS5011/5012 Masters Research Project in Geoscience Part 1 & 2 as outlined in Attachment H3b to the agenda

57. NEW UNIT PROPOSAL SCOM5308 PEER REVIEW

The School of Animal Biology proposed the introduction of SCOM5302 Peer Review. In this unit students will learn how to construct and provide criticism. Students will gain experience in reading and responding to comments on their own research, and providing feedback to their peers and will be able to respond to feedback in a thorough and professional manner. This unit complements the research units in Science Communication and enables students to receive additional feedback on their dissertation.

It was RESOLVED 81/2015
to approve the new unit SCOM5308 Peer Review as outlined in Attachment H4 to the agenda
58. NEW UNIT PROPOSAL SCOM5302 CONTEMPORARY ISSUES IN SCIENCE COMMUNICATION

The School of Animal Biology proposed the introduction of SCOM5302 Contemporary Issues in Science Communication for inclusion in the Master of Science Communication and Honours in Science Communication. In this unit students will develop a deeper understanding of the discipline of Science Communication. They will gain an advanced understanding of theoretical concepts and be able to construct arguments and share their professional opinions with regards to discipline specific issues.

It was RESOLVED 82/2015 to approve the new unit SCOM5302 Contemporary Issues in Science Communication as outlined in Attachment H5 to the agenda.

59. NEW UNIT PROPOSAL PLNT4501/4502/4503/4504 BOTANY RESEARCH DISSERTATION PART 1, 2, 3 & 4

The School of Plant Biology proposed new 24 points honours dissertation for students completing honours in Botany. In the unit, students follow one or more lines of enquiry within a supervised but independent research project. Students gain experience in the identification and resolution of problems associated with their chosen discipline. Students design and carry out research, compile and manipulate data, critically analyse results, re-evaluate research goals and present and discuss the research results in a written research dissertation. The unit provides the research and project management skills necessary for a career as a research professional. The project management skills and experience acquired in the unit are relevant to all students wishing to practice as industry professionals. Students can commence the unit in either semester 1 or 2 and it is available in both Albany and Crawley.

It was RESOLVED 83/2015 to approve the new unit proposal PLNT4501/4502/4503/4504 Botany Research Dissertation Part 1, 2, 3 & 4 as outlined in Attachment H6 to the agenda.

60. NEW UNIT PROPOSAL PLNT4511 PLANT BIOLOGY RESEARCH PROJECT DEVELOPMENT

The School of Plant Biology proposed a new unit PLNT4511 Plant Biology Research Project Development for students enrolling in Honours in Botany. In this unit students develop a research proposal supported by a literature review. The proposal is intended to provide direction and focus for the research project that will lead to the Honours dissertation. Students are guided by their research supervisor in identifying a gap in knowledge that needs to be filled, planning a research project to fill that gap in knowledge, and developing a detailed project proposal that is based on a thorough review of the current literature. Students can commence the unit in either semester 1 or 2 and it is available in both Albany and Crawley.

It was RESOLVED 84/2015 to approve the new unit PLNT4511 Plant Biology Research Project Development as outlined in Attachment H7 to the agenda.

61. NEW UNIT PROPOSAL PLNT4512 PLANT BIOLOGY RESEARCH PRESENTATION

The School of Plant Biology proposed a new unit PLNT4512 Plant Biology Research Presentation for students enrolling in Honours in Botany. Students will strive to understand the content, as well as assess the presentation as a piece of science communication. The unit provides oral communication skills that are relevant to all students wishing to practice as industry professionals and that are highly sought by employers. Students can commence the unit in either semester 1 or 2 and it is available in both Albany and Crawley.

It was RESOLVED 85/2015 to approve the new unit PLNT4512 Plant Biology Research Presentation as outlined in Attachment H8 to the agenda.

62. NEW UNIT PROPOSAL ENVT5580, 5581, 5582 & 5583 ECOTOURISM RESEARCH PROJECT PART 1, 2, 3 & 4

The Centre for Excellence in Natural Resource Management proposed the introduction of ENVT5580/5583 Ecotourism Research Project Part 1 to Part 4 for inclusion in the Master of Ecotourism by Coursework and Dissertation.
It was **RESOLVED 86/2015**
To approve the new unit proposal ENVT5580, 5581, 5582 & 5583 Ecotourism Research Project Part 1, 2, 3 & 4 as outlined in Attachment H9 to the agenda

**63. NEW UNIT PROPOSAL FOR GEOS4418 BASIN ANALYSIS TECHNIQUES**

The School of Earth and Environment proposed a new unit GEOS4418 Basin Analysis Techniques for inclusion in the options list in the Master of Geoscience. This unit increases opportunity for students to develop/strengthen skills in basin analysis for petroleum geoscience. It provides a strong base along with GEOS4412 for students taking GEOS5503.

It was **RESOLVED 87/2015**
to approve the new unit GEOS4418 Basin Analysis Techniques as outlined in Attachment I4 to the agenda

**64. NEW UNIT PROPOSAL FOR GEOS5506 STRUCTURAL ANALYSIS FOR PETROLEUM GEOSCIENCE**

The School of Earth and Environment proposed a new unit GEOS5506 Structural Analysis for Petroleum Geoscience for inclusion in the options list in the Master of Geoscience. This unit moved and expanded content from GEOS4412 (prior to 2015) specifically focusing on structural geology as applied to petroleum geoscience.

It was **RESOLVED 88/2015**
To approve the new unit GEOS5506 Structural Analysis for Petroleum Geoscience as outlined in Attachment I5 to the agenda

**65. NEW UNIT PROPOSAL FOR GEOS5509 SEDIMENTARY BASIN FIELD EXCURSION**

*Referred from the meeting of the Science Teaching & Learning Committee held on 30 April 2015 (by Res: 84/2015)*

The School of Earth and Environment proposed a new unit GEOS5509 Sedimentary Basin Field Excursion for inclusion in the options list in the Master of Geoscience. This unit provides students aspiring to a petroleum geoscience career the opportunity to undertake a major fieldtrip to a world-class sedimentary basin in WA, Australia or overseas, to strengthen field skills and develop basin-scale interpretations.

It was **RESOLVED 89/2015**
to approve the new unit GEOS5509 Sedimentary Basin Field Excursion as outlined in Attachment I6 to the agenda

**66. NEW UNIT PROPOSAL FOR GEOS5508 ISOPOE GEOCHEMISTRY**

The School of Earth and Environment proposed a new unit GEOS5508 Isotope Geochemistry for inclusion in the options list in the Master of Geoscience. This unit provides students with an opportunity to develop higher level understanding of isotopic systems and their application to geoscience research.

It was **RESOLVED 90/2015**
to approve the new unit GEOS5508 Isotope Geochemistry as outlined in Attachment I7 to the agenda

**67. NEW UNIT PROPOSAL FOR GEOS5507 ANALYTICAL TECHNIQUES FOR THE GEOSCIENCES**

The School of Earth and Environment proposed a new unit GEOS5507 Analytical Techniques for the Geosciences for inclusion in the Master of Geoscience. This unit increases opportunity for students to gain skills in the use of analytical equipment for micro-characterisation of geological materials. It is also a complementary unit for GEOS5508.

It was **RESOLVED 91/2015**
to approve the new unit GEOS5507 Analytical Techniques for the Geosciences as outlined in Attachment I8 to the agenda
68. **NEW UNIT PROPOSAL BIOL5542 CONSERVATION GENETICS**
   The School of Animal Biology proposed changing the level of BIOL4402 from level 4 to Level 5.
   It was
   RESOLVED 92/2015
to approve the new unit proposal BIOL5542 Conservation Genetics as outlined in Attachment I9 to the agenda

69. **NEW UNIT PROPOSAL ANIM5501 VERTEBRATE DEVELOPMENT**
   The School of Animal Biology proposed changing the level of ANIM4401 from level 4 to level 5.
   It was
   RESOLVED 93/2015
To approve the new unit proposal ANIM5501 Vertebrate Development as outlined in Attachment J1 to the agenda

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**Executive Officer’s note for items 70 – 75:** The School of Psychology proposed changes to admission requirements to align with the requirements of the Psychology Board of Australia for registration which include a personal statement, Curriculum Vitae and evidence on registration of English Language Competence by IELTS with a minimum score of 7 in each of the four components (listening, reading, writing and speaking). This was not explicitly stated in the Attachments to the agenda. Since the meeting the Deputy Dean has reviewed this situation and he confirms that this change to admission requirements for 2016 will make the Psychology Board of Australia’s requirement more visible to prospective students

70. **PROPOSED CHANGES TO ADMISSION REQUIREMENTS AND DURATION FOR THE GRADUATE DIPLOMA IN CLINICAL NEUROPSYCHOLOGY**
   The School of Psychology proposed changing the time limit for completion of the Graduate Diploma in Clinical Neuropsychology from 2 years to 4 years to align with the University Policy on time limits for Graduate Diplomas and changes to the admission requirements.
   It was
   RESOLVED 94/2015
To approve the changes to admission requirements and duration for the Graduate Diploma in Clinical Neuropsychology as outlined in Attachment A1 to the agenda

71. **PROPOSED CHANGES TO ADMISSION REQUIREMENTS AND DURATION FOR THE GRADUATE DIPLOMA IN CLINICAL PSYCHOLOGY**
   The School of Psychology proposed changing the time limit for completion of the Graduate Diploma in Clinical Psychology from 2 years to 4 years to align with the University Policy on time limits for Graduate Diplomas and changes to the admission requirements.
   It was
   RESOLVED 95/2015
To approve the changes to admission requirements and duration for the Graduate Diploma In Clinical Psychology as outlined in Attachment A2 to the agenda

72. **PROPOSED CHANGES TO ADMISSION REQUIREMENTS FOR THE DOCTOR OF PHILOSOPHY AND MASTER OF CLINICAL NEUROPSYCHOLOGY**
   The School of Psychology proposed changes to the admission requirements for the Doctor of Philosophy and Master of Clinical Neuropsychology to align with Australian accreditation requirements.
   It was
   RESOLVED 96/2015
To approve the changes to admission requirements for the Doctor of Philosophy and Master of Clinical Neuropsychology as outlined in Attachment A3 to the agenda
73. PROPOSED CHANGES TO ADMISSION REQUIREMENTS FOR THE DOCTOR OF PHILOSOPHY AND MASTER OF CLINICAL PSYCHOLOGY

The School of Psychology proposed changes to the admission requirements for the Doctor of Philosophy and Master of Clinical Psychology to align with Australian accreditation requirements.

It was
RESOLVED 97/2015
To approve the changes to admission requirements for the Doctor of Philosophy and Master of Clinical Psychology as outlined in Attachment A4 to the agenda

74. PROPOSED CHANGES TO ADMISSION REQUIREMENTS FOR THE MASTER OF INDUSTRIAL AND ORGANISATIONAL PSYCHOLOGY

The School of Psychology proposed changes to the admission requirements for the Master of Industrial and Organisational Psychology to align with Australian accreditation requirements.

It was
RESOLVED 98/2015
To approve the changes to admission requirements for the Master of Industrial and Organisational Psychology as outlined in Attachment A5 to the agenda

75. PROPOSED CHANGES TO ADMISSION REQUIREMENTS AND DURATION FOR THE DOCTOR OF PHILOSOPHY AND MASTER OF INDUSTRIAL AND ORGANISATIONAL PSYCHOLOGY

The School of Psychology proposed changing the time limit for completion of the Doctor of Philosophy and Master of Industrial and Organisational Psychology from 2 years to 4 years as the PHD component takes up to 4 years; and changes to the admission requirements.

It was
RESOLVED 99/2015
To approve the changes to admission requirements and duration for the Doctor of Philosophy and Master of Industrial and Organisational as outlined in Attachment A6 to the agenda

76. ANY OTHER BUSINESS

Academic delegations: Members were asked, following consideration of this large number of curriculum items, whether there should be a greater level of delegation to Teaching and Learning Committee, with less items requiring approval of this Committee. Members indicated that they were supportive of this opportunity to consider all the significant curriculum proposals being put forward across the Faculty and were in agreement that the current delegations were appropriate.

The Deputy Dean foreshadowed changes to the Science Teaching and Learning Committee, through the creation of a Science Curriculum Committee that would deal with curriculum matters, leaving Science Teaching & Learning Committee to focus on pedagogy and the student experience. Members indicated general support.

77. NEXT MEETING

The next meeting of the Science Executive Committee is scheduled for Tuesday, 16 June 2015 at 3:00pm in the Science Boardroom (G108 Agriculture Central).
3.4 Science Teaching and Learning Committee

3.4.1 Position within the Faculty Governance

The Science Teaching and Learning Committee is a sub-committee of, and makes recommendations to, the Science Executive Committee. It has authority for some academic making delegated from the Science Executive Committee as indicated in 3.4.3.

3.4.2 Role

The role of the Science Teaching and Learning Committee is to provide advice to the Dean and the Science Executive Committee on all matters relating to pedagogy and other matters relating to teaching plus the student experience teaching and learning in the Faculty including but not limited to—

a) the enhancement of teaching quality and student experience in the Faculty courses and units;

b) the development of undergraduate and postgraduate courses, majors and specialisations;

c) the encouragement and reward of high-quality teaching;

d) the appropriate use of technology;

e) research on teaching and learning;

f) compliance with University and Faculty Rules and Policies;

g) ensuring that teaching and learning practices and procedures, including assessment, are consistent with University policies and guidelines;

h) ensuring that student views on their teaching experiences are considered, communicated and responded to as required;

i) considering advice from the Science Student office; and

j) providing advice to the Science Student office.

3.4.3 Delegation on education matters

The Science Teaching and Learning Committee makes decisions on major changes to cycle 1 and cycle 2 courses where there is an impact on structure or unit sequence.

3.4.4 Membership

The Science Teaching and Learning Committee comprises:

a) the Associate Dean (Teaching and Learning) Deputy Dean, or nominee, as Chair;

b) Faculty Manager, Education (who is also the Executive Officer);

c) the Deputy Dean

d) the Associate Dean (Teaching and Learning);

e) at least two representatives of the Science Student Office, appointed by the Dean;

f) at least two elected representatives of undergraduate students;

g) at least two elected representatives of postgraduate students; and

h) co-opted members as recommended by the Committee.

3.4.5 Terms of office

a) The term of office for members elected under 3.4.4(f) is one year.

b) The term of office for members elected under 3.4.4(g) is one year.

c) The term of office for members co-opted under 3.4.4(h) is one year.

3.4.6 Quorum

The quorum is half the members plus one.

3.4.7 Decisions

1. All questions which come before the committee are decided by a majority of the members present and voting.

2. The chair of the meeting has an ordinary vote and a casting vote.

3.4.8 Frequency of meetings

The Science Teaching and Learning Committee normally meet each month except December and January.
3.4 Science Curriculum Committee

3.4.1 Position within the Faculty Governance

The Science Curriculum Committee is a sub-committee of, and makes recommendations to, the Science Executive Committee. It has authority for some academic making delegated from the Science Executive Committee as indicated in 3.4.3.

3.4.2 Role

The role of the Science Curriculum Committee is to provide advice to the Dean and the Science Executive Committee on all matters relating to curriculum development and management in the Faculty including but not limited to—

a) the development of undergraduate and postgraduate courses, majors and specialisations;
b) compliance with University and Faculty Rules and Policies;
c) ensuring that student views on their teaching experiences are considered when developing curriculum;
d) considering advice from the Science Student office; and
e) providing advice to the Science Student office.

3.4.3 Delegation on education matters

The Science Curriculum Committee makes decisions on major changes to cycle 1 and cycle 2 courses where there is an impact on structure or unit sequence.

3.4.4 Membership

The Science Teaching and Learning Committee comprises:

a) the Deputy Dean, or nominee, as Chair;
b) Manager, Education (who is also the Executive Officer);
c) the Associate Dean (Teaching and Learning);
d) the heads of schools in the Faculty or their nominees;
e) at least two representatives of the Science Student Office, appointed by the Dean;
f) at least two elected representatives of undergraduate students;
g) at least two elected representatives of postgraduate students; and
h) co-opted members as recommended by the Committee.

3.4.5 Terms of office

a) The term of office for members elected under 3.4.4(f) is one year.
b) The term of office for members elected under 3.4.4(g) is one year.
c) The term of office for members co-opted under 3.4.4(h) is one year.

3.4.6 Quorum

The quorum is half the members plus one.

3.4.7 Decisions

3. All questions which come before the committee are decided by a majority of the members present and voting.
4. The chair of the meeting has an ordinary vote and a casting vote.

3.4.8 Frequency of meetings

The Science Curriculum Committee normally meets each month from February to June.
People Potential and Performance

1. Faculty of Science Expectations and Performance Criteria

The mission for the Faculty of Science is to deliver excellent teaching and research that has a major impact on the challenges facing humanity and to do so by doing science that makes a difference. This mission is commensurate with our vision of being amongst the leading Science faculties nationally and internationally and can only be achieved by having high performing staff across all areas of our activity. To help in realizing this mission, the Faculty has identified four, high level strategic objectives:

- To improve the quality of the student learning experience
- To improve the quality, impact, and productivity of research and research training
- To improve the University’s positioning and reputation, and to develop strategic relationships and community engagement
- To develop our people and resources so that the Faculty can respond flexibly to change

This section of the Academic Standards and Expectations Framework (ASEF) outlines the expectations for academic staff in the Faculty and is intended to provide clear guidelines for evaluating and managing the potential and performance of all staff in the Faculty of Science against a set of defined metrics. These metrics are designed to supplement the University’s Academic Performance Standards outlined elsewhere in this document (Tables 1 and 2, pages 6 and 7). These performance metrics represent the Faculty’s minimum expectations and it is likely that higher expectations may need to be set at PDA for some staff. Changes to these minimum expectations may be moderated through the Science Executive to recognize differences in research expectations or learning outcomes between disciplines.

2. Faculty Expectations in Research

Table 1: Research Outputs

<table>
<thead>
<tr>
<th>Appointment</th>
<th>Ratio of Research to Teaching</th>
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<tbody>
<tr>
<td></td>
<td>20:80</td>
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<tr>
<td>LVLA</td>
<td>-</td>
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<tr>
<td>LVLB</td>
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<tr>
<td>LVLC</td>
<td>1</td>
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<tr>
<td>LVLD</td>
<td>1</td>
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<tr>
<td>LVLE</td>
<td>2</td>
</tr>
</tbody>
</table>

a) For example a level D, T&R academic on a full-time contract on a 50:50 research:teaching load would be expected to produce, on average, 3 research outputs per annum. This performance should be assessed as ‘meeting expectations’. An average publication rate of 2 or less per annum would be assessed as ‘below expectations’ against this criterion. Publication outputs of more than 30-50% of the minimum expectations should be considered as ‘exceeding expectations’

b) Quality across all levels maintained by expecting that between 65-70% of an individual's output is published in the top 20% of journals in the field as identified using Socrates.

To be considered ‘outstanding’ whilst staff would normally be publishing at +100% of the minimum expectation would be considered ‘outstanding’ where, with 80% of these outputs are published in the top 20% of journals.

Table 2: Research income

<table>
<thead>
<tr>
<th>Appointment</th>
<th>Ratio of Research to Teaching</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>20:80</td>
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<tr>
<td>LVLA</td>
<td>10</td>
</tr>
<tr>
<td>LVLB</td>
<td>20</td>
</tr>
<tr>
<td>LVLC</td>
<td>40</td>
</tr>
<tr>
<td>LVLD</td>
<td>60</td>
</tr>
<tr>
<td>LVLE</td>
<td>100</td>
</tr>
</tbody>
</table>
a) For example a level D, T&R academic on a full-time contract with a 50% teaching load would be expected to secure an annualized income of $100k over a 3 year period ($300k over 3 years). This performance should be assessed as ‘meeting expectations’. Average research funding of $80k or less per annum would be assessed as ‘below expectations’ against this criterion. Similarly, $150k or more should be assessed as ‘exceeding expectations’.

To be considered as ‘outstanding’ staff would normally be exceeding the expected level of research income performance should only be recorded where research income is exceeded by more than +100% of the expected level.

Table 3: HDR Supervision

<table>
<thead>
<tr>
<th>Appointment</th>
<th>Ratio of Research to Teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20:80</td>
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<tr>
<td>LVLA</td>
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<td>LVLD</td>
<td>2</td>
</tr>
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<td>LVLE</td>
<td>3</td>
</tr>
</tbody>
</table>

a) HDR expectations are not measured pro-rata (where supervision is NOT divided by the number of UWA co-supervisors.

b) For example a level D, T&R academic on a full-time contract with a 50% teaching load is expected to be supervising 4 HDR students. This performance should be assessed as ‘meeting expectations’. Supervision of 3 or fewer HDR students would be assessed as ‘below expectations’. Similarly, supervision of more than 6 HDR students (+50%) should be assessed as ‘exceeding expectations’.

To be assessed as ‘outstanding’ performance staff would normally be supervising whilst 8 or more (+100%) students with > 85% of students supervised completing in under 4 years should be regarded as an ‘outstanding performance’.

Table 4: Quality of HDR Supervision

<table>
<thead>
<tr>
<th>Quality of HDR Supervision (not included as yet in research metrics)</th>
<th>Below Expectations</th>
<th>Meets Expectations</th>
<th>Exceeds Expectations</th>
<th>Outstanding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fails to meet regularly with their students, does not participate as part of the supervisory team.</td>
<td>Meets regularly with their students and is an active participant in supervisory team meetings. Actively responds to concerns raised by students in their annual reports.</td>
<td>Strongly supported by their students through the annual reporting system. Recognizes the need to develop HDR students as early career researchers and acts accordingly</td>
<td>Nominated for Supervision awards. Strong support from students as evidenced in annual reports. Recognizes the need for and actively helps in career development and in identifying job opportunities for their students</td>
<td></td>
</tr>
<tr>
<td>Fails to provide timely and high quality feedback on written material Does not encourage publication of research Does not encourage</td>
<td>Provides timely and high quality feedback on written material Encourages peer review publication of research</td>
<td>Provides a vibrant research environment for the student and the group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of input into the Science aspect of the project</td>
<td>Provides an intellectually challenging and supportive research environment for the student and the group</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 The Faculty of Science’s goal for time to completion (IPE 2015) is that more than 85% of PhD students will complete in less than 4 years by 2018.
3. Outstanding Performance and Shifts in Research Productivity

It is acknowledged that many staff in the Faculty strive for outstanding performance across all areas. The university defines ‘outstanding’ performance as the “demonstration of behaviors consistently exceeding expectations. The consistently high standard has earned recognition by others internal and/or external to the University. Has transformational impact.” The University expectation is that no more than 5-10% of staff will meet these criteria and be assessed as ‘outstanding’.

In the Faculty of Science, for an individual performance to be considered ‘outstanding’ then it is expected that they must exceed Faculty research expectations across all criteria (outputs, research income and HDR supervision) and meet all of the target specific criteria (80% of outputs in the top 20%; > 85% HDR completion in < 4 years; research income +100%). This recognizes that the University, as a top 100 institution, is a high performance environment and as such expects the very best from its staff. The Faculty recognizes fully the need to reward outstanding performance where this is consistent and sustained over a number of years. The new PDA (personal Performance Development and Appraisal process) is expected to identify explicitly sustained, outstanding performance as well as any changes in overall performance. The latter is designed to identify those staff that are increasing their research productivity (inputs and outputs) relative to previous years as well as providing the opportunity for intervention where research productivity is decreasing (see Appendix 1). Any recommendation for an outstanding performance that does not meet these criteria will need to be agreed and justified by the Head of School or line manager.

4. Faculty Expectation in Teaching and Learning

The Faculty of Science expects that all staff should contribute to the University’s education programmes and to enhancing the student experience. The Faculty recognizes that its teaching and learning programmes are enriched by the contributions of the numerous research-intensive staff, funded externally to the University, and the many adjunct staff who support the Faculty’s education agenda. For staff on UWA Teaching and Research contracts there is a specific expectation that all staff are active in both teaching and in research. The balance between research and teaching is benchmarked against the teaching and research KPIs and agreed with the Head of School during the PDA. The Faculty sets its minimum expectation in teaching (and in research) at 20% of a full-time academic workload. This recognizes that staff contribute in different ways to the University’s mission. The University’s expectations and academic performance standards in Research are provided elsewhere in this document (Tables 1 and 2, pages 6 and 7). The information presented here is intended to provide clear guidance for evaluating and managing teaching performance in the Faculty of Science against different criteria (Table 54). The criteria are not exclusive and other comparable contributions may be substituted where appropriate.
### Table 54: Teaching and Learning

<table>
<thead>
<tr>
<th>Commitment to quality teaching</th>
<th>Below Expectations</th>
<th>Meets Expectations</th>
<th>Exceeds Expectations</th>
<th>Outstanding</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SPOT not completed or not submitted</td>
<td>Supportive SPOT scores and / or satisfactory peer review (peer observation)</td>
<td>Supporting SPOT scores and / or very good peer review (peer observation). Regularly nominated for teaching awards</td>
<td>Excellent SPOT scores and / or excellent peer review. Won teaching awards and secured numerous nominations.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Innovation in Teaching and/or Assessment and/ or Unit Coordination</th>
<th>Below Expectations</th>
<th>Meets Expectations</th>
<th>Exceeds Expectations</th>
<th>Outstanding</th>
</tr>
</thead>
<tbody>
<tr>
<td>No attempt to introduce any relevant innovation in past three years</td>
<td>A minimum of one minor teaching innovation in the last 3 years</td>
<td>Numerous teaching innovations in last three years. A minimum of one application for a teaching and learning grant in the last three years</td>
<td>Minimum of one major educational innovation in the past 3 years with some evidence of success. Innovative use of LMS and willingness to share expertise</td>
<td></td>
</tr>
<tr>
<td>Not using LMS</td>
<td>Demonstrated willingness to respond to student learning needs with some evidence of success (eg improved SPOTS, improved peer review)</td>
<td>Innovative use of LMS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Active use of LMS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Professional Development including mentoring and participation in peer observation</th>
<th>Below Expectations</th>
<th>Meets Expectations</th>
<th>Exceeds Expectations</th>
<th>Outstanding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fails to participate in any teaching and learning activities - for self or others</td>
<td>Demonstrated effort to improve teaching through participation in T&amp;L activities and training programmes</td>
<td>Consistent/sustained effort to improve their own and the teaching of others (eg through peer review as reviewer and reviewee)</td>
<td>Demonstrates leadership in Education and makes sustained efforts to improve their own and others teaching. Active across all areas of T&amp;L at Faculty/University Shows leadership in mentoring by supporting many staff. Support highly valued by colleagues</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sustained effort in helping a few junior colleagues</td>
<td>Sustained effort in helping numerous colleagues</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Commitment to quality unit coordination</strong></td>
<td><strong>Below Expectations</strong></td>
<td><strong>Meets Expectations</strong></td>
<td><strong>Exceeds Expectations</strong></td>
<td><strong>Outstanding</strong></td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>------------------------</td>
<td>------------------------</td>
<td>--------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td></td>
<td>SURF not completed; or unsatisfactory</td>
<td>Supportive SURF scores</td>
<td>Supportive SURF scores and/ or very good peer review (peer observation)</td>
<td>Excellent SPOT scores and/ or excellent peer review.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Active use of LMS</td>
<td>Innovative use of LMS</td>
<td>Innovative use of LMS and willingness to share expertise</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Proactive and well organized</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Curriculum development</strong></th>
<th>Fails to participate</th>
<th>Provides some input to curriculum development</th>
<th>Takes major responsibility for curriculum development within their discipline</th>
<th>Demonstrates leadership in curriculum development at School/Faculty/UWA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Supervision (Level 4, Level 5)</strong></td>
<td>Fails to participate in either supervision or assessment</td>
<td>Co-supervision of a minimum of 1 honours student per annum</td>
<td>Co-supervision of &gt;1 Honours student per annum (relative to opportunity)</td>
<td>Sustained effort in the successful supervision of Level 4, Level 5 project students</td>
</tr>
<tr>
<td><strong>Contribution towards enhanced student experience</strong></td>
<td>Not available for student contact outside formal teaching period</td>
<td>Available for student contact for a limited period and limited channels</td>
<td>Available for and responsive to student contact – via a range of channels (eg LMS post; by scheduled ‘availability’; after classes)</td>
<td>Sustained effort to be available for and responsive to student contact – via LMS post; by scheduled ‘availability’, after classes</td>
</tr>
<tr>
<td><strong>Service to Education (International, National or State Curriculum)</strong></td>
<td>Fails to participate</td>
<td>Provides some input into curriculum matters outside UWA</td>
<td>Contributes to curriculum development in pre-tertiary (eg WA WACE) or tertiary sector (beyond UWA)</td>
<td>Sustained service to curriculum development in pre-tertiary (eg WACE) or tertiary sector (beyond UWA)</td>
</tr>
</tbody>
</table>

*Note: A self-audit tool is being developed to aid staff in completing this table for discussion with Head of School during their PDA.*
5. Defining a 20% Teaching Load in the Faculty of Science

Ensuring that staff are fully recognized and rewarded for their individual contributions to the University is a key element of the University’s People Potential and Performance (PPP) framework. For the PPP to work effectively and equitably it is important to recognize the variety of roles played by different staff across the Faculty. The Faculty’s research KPIs recognize this by acknowledging that some staff contribute most through teaching and learning whilst others make their contribution through research. Both are equally valued when it comes to performance management but there is currently no agreed definition of a standard teaching load for the Faculty of Science.

Taking responsibility for teaching and hence for quality of teaching is seen as equally important as the delivery of teaching contact hours when defining a 20% teaching load.

However, having a clear definition of what constitutes a nominal (or minimum) teaching load responsibility (in this case 20% time) is considered essential when measuring teaching and research performance and has equity implications when considering promotions and sabbatical applications. This section of the ASEF documentation seeks to define a 20% FTE teaching load responsibility in the Faculty of Science using data available from the University’s Executive Information System (EIS). It is also recognized that a teaching and research academic staff member is notionally expected to allocate 40% of their time to teaching; 40% to research and 20% to service.

Here it is assumed that the number of units delivered, the number of students taught in these units, the number of publications produced and the number of postgraduate students supervised would contribute significantly to the workload of the majority of academic staff.

Table 6 shows the variability in these measures between Faculties and illustrates the challenges in defining a standard teaching load across the University. For the purposes of this analysis data for the Faculty of Science were examined in more detail (Table 7). As was evident in comparisons between faculties there are also marked differences in these teaching and research indicators between schools.

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2 Heads of Schools are generally supportive of a definition for 20% FTE teaching
3 Taking responsibility for teaching quality is seen as a core value
Table 65: UWA data on staffing levels and key indicators of teaching and research workload

| Faculty | Academic Staff FTE T&R TO RO | Academic Staff FTE Lvl B or Above T&R TO RO | Units Count UG PGCwk HDR | Student EFTSL UG PGCwk HDR | Research Activity
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC</td>
<td>17.8 1.3 3.7</td>
<td>17.8 1.3 2.3</td>
<td>13.7 59.3 12.0</td>
<td>47.4 237.8 86.1</td>
<td>56.3 29 $1,757,047</td>
</tr>
<tr>
<td>SCI</td>
<td>182.9 7.8 226.0</td>
<td>178.1 4.8 129.5</td>
<td>291.7 155.2 55.0</td>
<td>4016.5 355.7 607.0</td>
<td>708.3 665 $52,803,988</td>
</tr>
<tr>
<td>ECM</td>
<td>91.1 2.4 73.5</td>
<td>88.9 2.4 48.8</td>
<td>177.5 85.7 28.0</td>
<td>2297.6 200.6 243.8</td>
<td>350.9 192 $15,027,067</td>
</tr>
<tr>
<td>ARTS</td>
<td>94.8 10.4 15.6</td>
<td>92.4 4.0 8.3</td>
<td>337.3 32.5 43.7</td>
<td>2590.6 103.1 209.5</td>
<td>238.9 86 $4,716,824</td>
</tr>
<tr>
<td>MDHS</td>
<td>200.4 27.4 116.9</td>
<td>197.8 22.1 74.3</td>
<td>200.5 114.0 45.0</td>
<td>1536.7 365.4 269.0</td>
<td>483.5 530 $46,481,400</td>
</tr>
<tr>
<td>ALVA</td>
<td>24.1 3.4 0.9</td>
<td>23.0 3.1 0.0</td>
<td>66.8 31.7 8.3</td>
<td>693.7 216.8 29.5</td>
<td>27.2 13 $424,707</td>
</tr>
<tr>
<td>BUS</td>
<td>93.6 2.7 8.8</td>
<td>86.1 0.9 3.9</td>
<td>110.0 85.3 12.0</td>
<td>2983.9 519.0 87.1</td>
<td>117.3 70 $3,747,740</td>
</tr>
<tr>
<td>LAW</td>
<td>33.1 5.0 0.3</td>
<td>32.8 5.0 0.0</td>
<td>76.1 26.7 4.3</td>
<td>1307.5 67.1 18.0</td>
<td>72.0 7 $255,891</td>
</tr>
<tr>
<td>SIS</td>
<td>6.3 2.4 1.1</td>
<td>6.3 1.8 0.7</td>
<td>22.6 1.0 0.0</td>
<td>70.0 18.0 0.0</td>
<td>5.4 4 $765,539</td>
</tr>
</tbody>
</table>

Academic Staff FTE Academic Staff FTE Lvl B or Above

Data is average of 2011-13 totals for T&R BUs within each faculty. Where teaching responsibility is split among BUs, unit count has been pro-rated by student load. All data sourced from EIS. Where teaching responsibility is split among BUs, unit count has been pro-rated by student load. Units with less than five enrolled students have been excluded from the unit counts as a filter on units created for administrative purposes only.

Table 76: Research and teaching indicators between schools in the Faculty of Science (data currently being reviewed)

| T&R BU Desc | Academic Staff FTE T&R TO RO | Academic Staff FTE Lvl B or Above T&R TO RO | Units Count UG PGCwk HDR | Student EFTSL UG PGCwk HDR | Research Activity
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SCI-Animal Biol</td>
<td>16.9 1.0 28.2</td>
<td>16.3 0.9 14.6</td>
<td>32.1 15.8 7.7</td>
<td>278.7 24.0 76.1</td>
<td>84 96 $6,689,232</td>
</tr>
<tr>
<td>SCI-APHB</td>
<td>20.2 0.9 8.7</td>
<td>18.9 0.9 4.5</td>
<td>34.7 16.5 5.0</td>
<td>733.6 37.4 38.5</td>
<td>44 44 $2,858,115</td>
</tr>
<tr>
<td>SCI-ARE</td>
<td>9.1 0.0 7.4</td>
<td>9.1 0.0 5.8</td>
<td>11.3 5.2 2.3</td>
<td>84.7 15.9 19.8</td>
<td>41 17 $1,132,822</td>
</tr>
<tr>
<td>SCI-Chem &amp; Bioch</td>
<td>30.3 1.3 29.1</td>
<td>30.0 1.1 13.5</td>
<td>66.3 18.0 6.0</td>
<td>967.1 63.8 93.2</td>
<td>82 79 $5,845,902</td>
</tr>
<tr>
<td>SCI-Earth &amp; Env</td>
<td>29.1 0.8 56.2</td>
<td>29.1 0.3 39.6</td>
<td>45.6 26.2 13.9</td>
<td>371.7 49.2 87.1</td>
<td>110 156 $14,804,681</td>
</tr>
<tr>
<td>SCI-Physics</td>
<td>10.3 1.2 38.6</td>
<td>10.3 1.0 24.2</td>
<td>22.7 2.0 5.0</td>
<td>242.5 4.6 53.2</td>
<td>82 56 $6,861,020</td>
</tr>
<tr>
<td>SCI-Plant Biol</td>
<td>20.8 0.8 38.7</td>
<td>20.8 0.0 20.3</td>
<td>18.6 3.2 6.8</td>
<td>163.6 9.6 101.3</td>
<td>121 153 $9,938,145</td>
</tr>
<tr>
<td>SCI-Psychology</td>
<td>23.7 1.9 12.3</td>
<td>23.4 1.2 5.9</td>
<td>23.0 47.3 2.3</td>
<td>760.3 94.7 84.7</td>
<td>72 40 $3,012,095</td>
</tr>
<tr>
<td>SCI-SSEH</td>
<td>22.5 0.7 6.9</td>
<td>20.3 0.2 1.0</td>
<td>37.4 21.0 6.0</td>
<td>414.3 56.4 53.3</td>
<td>72 25 $1,841,976</td>
</tr>
<tr>
<td>SIS</td>
<td>6.3 2.4 1.1</td>
<td>6.3 1.8 0.7</td>
<td>22.6 1.0 0.0</td>
<td>70.0 18.0 0.0</td>
<td>5 4 $765,539</td>
</tr>
</tbody>
</table>

All data sourced from EIS. Where teaching responsibility is split among BUs, unit count has been pro-rated by student load. Units with less than five enrolled students were deemed administrative units and excluded from the unit counts.

Note: The EFTSL (equivalent full-time study load) is a measure used by the University to resource Faculties. One EFTSL = 8 students studying a 6 point unit.
Since indicators of research performance (publications, HDR students supervised and research income) have been addressed elsewhere, only measures of direct teaching activity (numbers of units delivered and number of students taught per staff FTE) are considered here. Using this approach it is not possible to evaluate the quality of the teaching (covered in Table 45) or to differentially weight teaching load according to the mode of delivery (laboratory practicals, field work, lectures etc) or to accommodate the administrative loads associated with unit coordination, tutorials, marking etc. This should be discussed as part of the PDA process and where appropriate, reported on by the Head of School or line manager.

Table 8 provides a breakdown by school of the number of Undergraduate and Postgraduate units delivered and the number of students taught per T&R (level B and above) and TO (teaching only) academic staff FTE. All data sourced from EIS and averaged over the period 2011 to 2013. Given the emerging nature of postgraduate teaching in the Faculty of Science, the definition of average workload for teaching has been developed using data for undergraduate teaching (Levels 1 to 3).

Table 8. Academic staffing levels (FTE) and key indicators of teaching load (Faculty of Science this table is being updated).

<table>
<thead>
<tr>
<th>T&amp;R BU Desc</th>
<th>UG + PG Units Delivered Per T&amp;R + TO FTE</th>
<th>UG + PG Students Taught Per T&amp;R + TO FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCI-Animal Biol</td>
<td>2.8</td>
<td>52.4</td>
</tr>
<tr>
<td>SCI-Plant Biol</td>
<td>1.0</td>
<td>25.0</td>
</tr>
<tr>
<td>SCI-Physics</td>
<td>2.2</td>
<td>64.4</td>
</tr>
<tr>
<td>SCI-Psychology</td>
<td>2.8</td>
<td>100.3</td>
</tr>
<tr>
<td>SCI-Chem &amp; Bloch</td>
<td>2.5</td>
<td>99.3</td>
</tr>
<tr>
<td>SCI-Earth &amp; Env</td>
<td>2.4</td>
<td>42.2</td>
</tr>
<tr>
<td>SCI-APHB</td>
<td>2.5</td>
<td>111.7</td>
</tr>
<tr>
<td>SCI-SSEH</td>
<td>2.5</td>
<td>60.8</td>
</tr>
<tr>
<td>SCI-ARE</td>
<td>1.8</td>
<td>32.7</td>
</tr>
<tr>
<td>Median</td>
<td>2.5</td>
<td>60.8</td>
</tr>
<tr>
<td>Average</td>
<td>2.3</td>
<td>65.0</td>
</tr>
</tbody>
</table>

These data show that in the Faculty of Science the number of Undergraduate units delivered per academic FTE ranges from 1.0 (Plant Biology) to 2.8 (Animal Biology, Psychology) and that the number of undergraduate and postgraduate students taught per FTE ranges from 25.0 (Plant Biology) to 111.7 (APHB). The average number of UG+PG units taught per academic staff FTE in the Faculty is 2.3 (median 2.5) whilst the average number of EFTSL earned per staff FTE is 65. To be updated with analysis of UG units per FTE.

Using these data as a guide, the expected teaching load for a T&R academic member of staff with an agreed 40:40:20 T&R&S loading is set at an equivalent of delivering between 2 to 3 units. Given that most Where units have delivery is shared with one or more staff, these numbers should be adjusted pro-rata. It is also noted that large first year units, with their additional complexity of organisation and role in initial student experience may be weighted at > 1.0 by the Head of School and teaching responsibilities adjusted accordingly.

Thus, a member of staff with a 20% teaching expectation, delivered wholly by that individual, is expected to take responsibility for the delivery of the equivalent of 1 unit with a unit enrolment of at least 65 students.

UWA recognizes that a 6-point unit requires 150 hours of work by the student. Although there is some variability in staff contact hours per unit across the Faculty (between 40 to 60 hours) an academic staff member on an agreed 20% teaching load (equivalent to 1 unit) is therefore expected to take responsibility for the delivery of teaching and to have notionally between 40:45 to 60:55 hours direct teaching contact.
with unit class sizes of between 50 and 100 students. Expectations around teaching responsibility, direct contact hours, their format and delivery, will be agreed with the Head of School during PDA.

6. Leadership, Service and Collegiality

In addition to performance in research and teaching, the University expects that all staff should contribute to the overall operations of the University through leadership, service and collegiality.

Leadership (of others and of self) is a core value of the Faculty of Science and central to our ability to be successful and deliver on our mission. The UWA Leadership Framework and Code of Conduct define the leadership capabilities required of leaders and provide guidance on the behaviors expected of staff across all levels. These behaviors help in defining individual contributions to service and collegiality and need to be explicitly documented and discussed as part of the Performance Development and Appraisal (PDA) process. There are five leadership capabilities and behaviors identified by the University. In some cases these differ depending on the level of appointment.

i. Shaping/supporting strategic thinking

Level A academic staff are expected to:

- work closely with their supervisors to develop research and teaching plans;
- help in setting directions for HDR student projects, including helping to identify measures that will show success.

Level B academic staff are expected to:

- work with advice from senior academics, to develop research and teaching plans;
- with advice from senior academics to set directions for HDR student projects, including identifying measures that will show success;
- be actively involved in Faculty and School activities that set strategies, including FASE and appropriate Faculty Research Themes;
- with advice from senior academics, mentor Level A academics and HDR students to manage projects.

Level C academic staff are expected to:

- independently develop research projects and teaching directions that are compatible within the areas of focus for the School and Faculty;
- actively participate in core School management committees, including Teaching and Learning and Research Committees, to set and review the strategic directions for the School;
- take leadership in specific areas and projects related to operations in a School/Centre/ Research Group, such as in safety, outreach, and publicity;
- mentor Level A and B academics and HDR students to manage projects, develop their career goals and develop their teaching and research.

Level D academic staff are expected to:

- operate at a level that identifies and fosters synergies in activities between groups within the School/Centre, Faculty and University;
- collaborate with Level A, B and C staff, identify opportunities for these people and expand their interactions in teaching and research outside of their current associations;
- undertake and lead development of staff, including PDR and PARPDA;
- be involved at senior levels of committees as chairs and deputy chairs of the Research and Teaching and Learning Committees of Schools, including active membership of faculty committees taking on roles as Research Theme Leaders, leadership in FASE and active membership of key University committees;
- be actively involved in leadership to set and review strategic goals within the School/Centre and Faculty;
lead in the implementation of the strategic goals of the School and Faculty;

take on the Head of School role when needed.

Level E academic staff are expected to:

- take on significant leadership roles in both teaching and research, thereby helping to develop strategic directions at a School and Faculty level;
- take on significant mentoring roles for all staff, including staff outside of their immediate research focus;
- undertake and lead development of staff, including PDA, PDR, and PAR;
- be actively engaged at a University, national and international level in understanding and setting strategies around teaching and research;
- be engaged with and leading core committees within the School, Faculty and University that set and review major policies.
- work with other academics to identify, develop and realise major opportunities for research, teaching and community engagement;
- lead in the implementation of the strategic goals of Schools and Faculty;
- take on the Head of School role when needed.

ii. Communicating with influence and respect

All academic staff are expected to:

- participate and actively contribute in committees and meetings;
- be respectful of other people’s views;
- actively consider issues from others’ perspectives before responding;
- appropriately challenge policies and strategies that are not working;
- actively seek feedback on how their colleagues and students perceive them;

iii. Exemplifying personal drive and integrity

All academic staff are expected to:

- contribute productively to the University, Faculty and School in a range of areas;
- operate from an ethical base that demonstrates integrity;
- be transparent, accountable and honest in their actions;
- understand that they work for the University, Faculty and School, and are part of a broad community that is striving to achieve the vision of the University, Faculty and School.

iv. Achieving results

All academic staff are expected to:

- perform to the best of their ability;
- set personal performance goals that stretch and continue to enhance quality in research and teaching;
- meet or exceed all aspects of these guidelines for performance expectations.

v. Cultivates/supports productive working relationships

All academic staff are expected to:

- understand and work within the University’s code of ethics and conduct;
- be respectful of others in all activities.
Mentoring and Professional Development

In addition to the above leadership capabilities, all academic staff in the Faculty of Science are expected to participate in mentoring and professional development activities relative to their level:

**Level A academic staff are expected to:**
- actively seek mentoring and participate in mentoring activities related to teaching, research and career development.

**Level B academic staff are expected to:**
- actively seek mentoring and participate in mentoring activities related to teaching, research and career development;
- participate in activities and professional development that build skills in effective communication and leadership.

**Level C academic staff are expected to:**
- actively seek mentoring and participate in mentoring activities related to teaching, research and career development;
- participate in activities and professional development that build skills in effective communication, leadership and team building;
- actively seek opportunities to be part of mentoring teams with Level A and B staff;

**Level D and E academic staff are expected to:**
- participate in activities and professional development that build skills in leadership, team building and management;
- actively seek opportunities to be part of mentoring teams with Level A, B and C staff;
- actively seek opportunities to help staff build their networks, both inside and outside the University;
- actively seek opportunities to build relationships with government, industry and leading academic institutions for the benefit of the University.

AGO’D Jan. 15th 2015 and updated 28 March 2015;
Updated – MT, NM, IM, CR 15 April 2015.
Revised AGOD, 25th May 2015
Updated following discussions at Science Exec 2 June 2015