Research School of Computer Science

Curriculum Development Committee Meeting

Meeting No. 3/2015
Tuesday, 6 August 2015, 1 – 2:30pm
Location: R212 Ian Ross Conference Room

Apologies and enquiries to Natalie Young (Deputy Manager – CECS Student Administration)
T: 6125 8809 E: Natalie.Young@anu.edu.au

Agenda Summary

Procedural Items

<table>
<thead>
<tr>
<th>*1.</th>
<th>Welcomes, Apologies and Announcements</th>
<th>To be Received</th>
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<tbody>
<tr>
<td>*2.</td>
<td>Minutes of Previous Meeting</td>
<td>For Confirmation</td>
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<td>*3.</td>
<td>Chair’s report</td>
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<td></td>
<td>3.1 Audit of COMP1730 (final report received)</td>
<td>For Noting</td>
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<td></td>
<td>3.2 ACS Accreditation – BSENG</td>
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<td>*4.</td>
<td>Matters arising from previous meeting and Action Items</td>
<td>For Noting</td>
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Report from Associate Dean (Education)

| *5. | Education Strategic Intent Draft Document | For Discussion |

Academic Staff – Appointments/Position Descriptions/Notifications

| *6. | Position Description statements for Program Convenors. | For Discussion |

Graduate and Undergraduate Coursework Degrees - Program/Course Additions/ Amendments/ Audits

| 7. | Changes to the Honours requirements to include a 6 unit Research Methods course (a COMP4xxx version of the existing COMP2560 course)? Carried over from CDC 2/2015 meeting. | For Discussion and Response |
| | External audit of Honour’s projects. | For Discussion and Response |
| 7. | Dealing with courses with SELS agreement < 50% and in the range 50-59%. | For Discussion and Response |
Other Items for Discussion

8. TBC at Meeting

Attachments

1. 2/2015 CDC Minutes (Unconfirmed)
2. Strategic intent draft document
3. PDs for Program Convenors
4. Peer review process
5. SELS courses with low satisfaction rating
6. Guidelines on writing learning outcomes
MINUTES

Meeting No. 2/2015
Present Paul Melloy, Alistair Rendell, Ramesh Sankaranarayana, Rod Kennedy, Lynette Johns-Boast, Dirk Pattinson, Tom Gedeon, Shayne Flint, Natalie Young
Venue R2121 - Ian Ross Conference Room (Building # 31)
Date/Time Thursday 26th May 2015 1:00PM

Welcome and Apologies
The Chair welcomed all members in attendance as noted in the listing above and noted the apologies received from John Staney, Steve Gould and Alex Richardson.

Minutes of Previous Meeting
The Committee confirmed the minutes from the previous meeting (1/2015) as being a true and accurate account of the meeting.

Matters Arising from Minutes and Action Items
The Committee received an update on Action Items from CDC 1/2015 as follows:

- **Grounding Principles (Why, How, What) Discussion** - The Committee noted that work is still ongoing in an attempt to more clearly articulate the nature and purpose of the Grounding Principles for the school. It was discussed that a working group needed to be assembled with the aim of consolidating and reviewing the existing education programs with a view to addressing how well these programs meet the values/mission of the school. The working group would also be responsible for highlighting issues and developing a reasonable timeline for action with consideration paid to program amendment deadlines.

  It was agreed that the Grounding Principles should serve a clearly delineated purpose, addressing what the school wants/should/believes it can achieve. It was noted that while this is unclear at present, it was agreed that the formation of a working group may assist with moving this process forward.

- **Graduate Attributes Update** – The Committee noted that Graduate Attributes are intuitively understood but difficult to define/determine. The paper from Simon Barry was cited as providing important insights into the benchmarking of learning experiences against curriculum, particularly in helping to clarify where we can take graduate attributes from (outside of the curriculum) and how best to articulate what opportunities for growth and development we’re providing to our students.

  It was noted that in taking this discussion further, consultation with industry partners, work experience supervisors and academic colleagues would need to largely inform what attributes we want to help our students develop. It was also noted that additional feedback would need to be sought in determining whether the school felt it was more appropriate to pursue generic or discipline-specific (as is the case with the University of Adelaide) Graduate Attributes.

  It was noted that the Australian Learning and Teaching Council (ALTC) Guidelines which assist in defining industry-specific Graduate Attributes would be circulated to Committee members to inform further discussions. The Committee also noted that CBE are currently utilising Graduate Attributes defined by industry.

  The Committee noted that attributes may also be defined based on the type of students we want to turn out as a school; for example:
  - Research/PhD Student – Research-focussed attributes
  - Workforce – Industry/Global Citizen attributes.
Working Group – The Committee noted that progress from the Working Group first depended on initial input from the School regarding the Grounding Principles and the Graduate Attributes to inform ongoing development in this space.

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<tbody>
<tr>
<td>1</td>
<td>Director to consolidate feedback gathered on the &quot;Why, How, What&quot;</td>
<td>Alistair Rendell</td>
<td>Ongoing</td>
<td>Progress to be provided at next CDC Meeting – 06/08/2015</td>
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<td></td>
<td>Discussion of the Grounding Principles and Graduate Attributes and</td>
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<td>appoint a group to review the efficacy of the current educational</td>
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<td>programs against the identified mission/values</td>
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<td>2</td>
<td>ALTC Graduate Attributes to be circulated to the Committee for</td>
<td>Lynette Johns-Boast</td>
<td>Completed</td>
<td>Documents circulated 26/05/2015</td>
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<td>review.</td>
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<td>3</td>
<td>Circulate considerations for Grounding Principles and Graduate</td>
<td>Dirk Pattinson</td>
<td>Completed</td>
<td>Documents circulated 26/05/2015</td>
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<td>Attributes to the Committee for consideration</td>
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<td>4</td>
<td>Working Group to identify issues around Master course prerequisites,</td>
<td>Lynette Johns-Boast</td>
<td>Ongoing</td>
<td>Progress to be provided at next CDC Meeting – 06/08/2015</td>
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<td>majors and odd/even offerings</td>
<td>Tom Gedeon</td>
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Starred Items

The starred items were noted by the Committee, with the recommendation that the proposed amendments to COMP2560 being discussed as “Other Business”.

Report from Chair

Audit of COMP1730 and COMP8705 – The Committee noted that the external audit of COMP1730 had been completed recently and although the executive were still waiting on the official report, anecdotal feedback was positive.

COMP8705 was subject to an internal review conducted by the Computer Science and Engineering Conveners where the following recommendations were provided:

1. Name and Code Change – The rationale for the name change is to move away from the perception that the course is essentially an English Language Course and to align it with the more strategic intent of developing students’ ability to communicate effectively and professionally in the context of a team, as well as the ability to articulate complex topics to lay-people.

It has been decided that the names and course codes will be retained for 2016, as these constitute more significant changes which would also require program amendment documentation to be submitted to the University Education Committee for review. Given that the MCOMP has been slated for significant review, major amendments to these courses will be postponed.

2. Amendments to Learning Outcomes and Course Descriptions (to be effective from 01/01/2016) will be updated by CECS Student Services as soon as 2016 P&C edits are available.

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<td>5</td>
<td>Proposed amendments to COMP8701/ENGN8150 and COMP8705/ENGN8160 supported and will adhere to the following implementation Plan: 1. Amendments to Course Descriptions and Learning Outcomes</td>
<td>1. Natalie Young</td>
<td>Ongoing</td>
<td>1. By COB Friday 6th June 2015</td>
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<td>2. Progress to be provided at next CDC Meeting –</td>
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to be updated on Programs and Courses (as per report approved at 2/2015 CEC 30/04/2015);
2. Amendments to Course Titles and Codes to be reviewed in the context of internal MCOMP Program audit and recommendations from the Working Group.

2. Ramesh Sankaranarayana Lynette Johns-Boast Tom Gedeon
Date to be Confirmed (Semester 2, 2015)

- **EA Accreditation Update** – The Committee noted that the EA Accreditation preparations were progressing well and RSE were on-track for delivering the written report slightly ahead of schedule.

- **ACS Accreditations** – The Committee noted as part of the ACS Accreditation Process, the Master specialisations has been accredited. Furthermore, the ICT Job Roles were added and will subsequently be mapped in core courses. The Director RSCS noted that the pre-accreditation review for the Undergraduate programs would also be circulated to the Committee in due course

### Changes to the BIT requirements to include Art and Craft

The Committee discussed the proposed amendments to the Bachelor of Information Technology (BIT) to include a sensible and coherent alternate pathway for students outside of the College wanting to complete a suite of valuable computing courses, as well as those students in our current BIT program with limited programming skills and experience.

To achieve this, the Committee agreed upon a more stepped introduction to programming, whereby instead of completing COMP1100 and COMP1110, students would enrol in COMP1030 The Art of Computing (existing VC’s course with a new course code), COMP1040 The Craft of Computing (existing course) and COMP2140 Java Programming (a new course but in effect, reactivating a currently inactive course COMP2750 Java Programming for New Media). The Committee felt that offering this pathway would result in increased student satisfaction and retention in the program.

The following recommendations were discussed as a means to progressing the proposed amendments to the BIT:

1. Disestablish the existing VC course, VCU01001, and recode it as COMP1030 (Art of Computing)
2. Introduce a new course, COMP2140 Java Programming, since we have been informed that we cannot reactive the course COMP2750 Java Programming for New Media.
3. Change the program requirements for the BIT to allow for this alternate pathway.
4. Review and amend (where appropriate) courses listing COMP1110 as a prerequisite.

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<tr>
<td>6</td>
<td>AD(Edu) CS to articulate coherent pathway options (e.g. Minor/Major) for students to complete that incorporate Art/Craft of Computing within the BIT program</td>
<td>Ramesh Sankaranarayana</td>
<td>Completed (See below)</td>
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**Update 04/06/2015**

Recommendation: That the Committee note the submission by the Chair to the College Education Committee (CEC 3/2015), detailing the amended BIT program structure.

### Changes to Program Requirements (changes are in red)

The Bachelor of Information Technology requires completion of 144 units, of which:

- A maximum of 60 units may come from completion of 1000-level courses
The 144 units must include:

**36 units from completion of the following compulsory courses:**
- **COMP1100** Introduction to Programming and Algorithms
- **COMP1110** Introduction to Software Systems
- **COMP1710** Web Development and Design
- **COMP2400** Relational Databases
- **COMP2600** Formal Methods in Software Engineering
- **COMP3120** Managing Software Development

**18 units from completion of either:**
- **COMP1030** Art of Computing
- **COMP1040** Craft of Computing and
- **COMP2140** Java Programming

**OR**
- **COMP1100** Introduction to Programming and Algorithms
- **COMP1110** Introduction to Software Systems and
- 6 units of COMP electives

**24 units from completion of the following compulsory courses:**
- **COMP1710** Web Development and Design
- **COMP2400** Relational Databases
- **COMP2600** Formal Methods in Software Engineering
- **COMP3120** Managing Software Development

**6 units from completion of a course from the following list:**
- **MATH1005** Discrete Mathematical Models
- **MATH1014** Mathematics and Applications 2
- **MATH1116** Mathematics and Applications 2 Honours

- **MATH1013** Mathematics and Applications 1
- **MATH1115** Mathematics and Applications 1 Honours

**A further 30 units from completion of 3000- or 4000-level courses from the following subject areas:**
- COMP - Computer Science
- INFS - Information Systems if completing the Information Systems major

**A further 24 units from completion of 3000- or 4000-level courses from the following subject areas:**
- COMP - Computer Science
- INFS - Information Systems if completing the Information Systems major

**A further 24 units from completion of courses from the following:**
- COMP - Computer Science
- INFS - Information Systems if completing the Information Systems major
- **MATH1005** Discrete Mathematical Models
- **MATH1014** Mathematics and Applications 2
- **MATH1116** Mathematics and Applications 2 Honours
- **ENGN1211** Discovering Engineering
- **VCUG3001** Unravelling Complexity
48 units from completion of elective courses offered by ANU

Notes
Students doing the Computational Foundations, Computer Engineering, Intelligent Systems and Software Development majors should be encouraged to do the comp1100/comp1110 combination. All other students should normally do the Art/Craft/comp2140 combination.

Recommended Enrolment Patterns (Semester 1 start)
We provide here enrolment patterns for the Software Development and Information Systems majors, which are the two most popular majors. Note that a student is not required to do a major in order to meet the requirements of the program.

Software Development (Pattern 1 – comp1100/comp1110)

<table>
<thead>
<tr>
<th>Year</th>
<th>Semester 1</th>
<th>Semester 2</th>
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<tbody>
<tr>
<td></td>
<td>COMP1100</td>
<td>COMP1110</td>
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<tr>
<td>Year 1</td>
<td>COMP1710</td>
<td>COMP2400</td>
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<tr>
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<td>Elective</td>
<td>MATH1005</td>
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<td>Year 2</td>
<td>COMP2100</td>
<td>COMP2130</td>
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<td>COMP2300</td>
<td>COMP2310</td>
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<tr>
<td>Year 3</td>
<td>COMP3100</td>
<td>COMP3100</td>
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<tr>
<td></td>
<td>COMP3120</td>
<td>COMP3600</td>
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Software Development (Pattern 2 – Art/Craft/2140)

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<tr>
<th>Year</th>
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<th>Semester 2</th>
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<tbody>
<tr>
<td></td>
<td>COMP1030</td>
<td>COMP1040</td>
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<tr>
<td>Year 1</td>
<td>COMP1710</td>
<td>COMP2400</td>
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<tr>
<td>Year 2</td>
<td>COMP2140</td>
<td>COMP2100²</td>
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<td>COMP2300</td>
<td>COMP2130</td>
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<td>COMP2600</td>
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<tr>
<td>Year 3</td>
<td>COMP3100</td>
<td>COMP3100</td>
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<tr>
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<td>COMP3120</td>
<td>COMP3600</td>
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<tr>
<td></td>
<td>Computing Elective¹</td>
<td>Computing Elective¹</td>
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Elective  |  Elective
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1. Must include one of comp3300/comp3310/comp3610.
2. Needs to be offered in both semesters.

**Information Systems (Pattern 1 – comp1100/comp1110)**

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<th>Year</th>
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<th>Semester 2</th>
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<tr>
<td>Year 1</td>
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<td>Year 3</td>
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<td>3000/4000 Computing Elective¹</td>
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**Information Systems (Pattern 2 – Art/Craft/2140)**

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<td>Year 1</td>
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<td>Elective</td>
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<td>Year 3</td>
<td>INFS3024</td>
<td>INFS3059</td>
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<td>COMP3120</td>
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1. Must include two of comp3420/comp3900/comp4650/infs3002.

**Changes to BSEng to cater to AQF 8 Honours requirements**

The Committee discussed the need to identify and review the AQF8 courses offered under the Bachelor of
Software Engineering (BSENG) and update the student-facing information on Programs and Courses to reflect the slightly amended degree requirements.

The Committee agreed upon the following amendment to the requirements:

24 units from either:
- 12 units from completion of COMP4500 Software Engineering Practice, and
- 12 units of 3000 or 4000 level COMP courses

Or:

24 units from completion of COMP4540 Software Engineering Research Project

It was noted that these changes are important in the context of ensuring that the program is satisfying AQF8 requirements.

Further to this minor amendment, the following courses were slated for review of AQF8 Learning Outcome and Description compliance:

- COMP3530
- COMP3230
- COMP3120
- COMP3630 (BAC)
- COMP3600 (BAC)

In addition, the Committee noted that 4XXX Series Courses (as well as some select 3XXX Series Courses) offered within the Embedded Honours Programs (BAC and BSENG) require review to ensure Research Training opportunities for students are accurately reflected.

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<tr>
<td>7</td>
<td>List of Co-Badged Courses to be provided to AD(Edu) CS for review and decision on 3XXX/4XXX coding and Learning Outcome revision requirements (in line with AQF 7/8 standards)</td>
<td>Natalie Young, Ramesh Sankaranarayana</td>
<td>Ongoing</td>
<td>Report attached – 26/05/2015</td>
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<td>8</td>
<td>AD(Edu) CS and ENG to develop Guiding Principles for 3XXX/4XXX Course Mapping (including course codes).</td>
<td>Ramesh Sankaranarayana, Rod Kennedy</td>
<td>Ongoing</td>
<td>Progress to be provided at next CDC</td>
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<td>9</td>
<td>AD(Edu) CS to review Courses within BSENG and BAC to determine required amendments/ co-badging/recoding (in line with AQF8 level standards).</td>
<td>Ramesh Sankaranarayana</td>
<td>Ongoing</td>
<td>Progress to be provided at next CDC</td>
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Specifying Prerequisites for Masters Courses

The Committee noted that this item would be tabled at the next CDC meeting (3/2015), due to lack of time to discuss this issue.

Other Business

Proposed Amendments to COMP2560

The Committee discussed proposal submitted by the Convener to amend the Learning Outcomes and Course Description of COMP2560.
The following feedback was noted in reference to the submitted report:

- Reword # 4
- #5 is ambiguous and needs to be more clearly articulated.

The Chair noted that further consideration would need to be paid to the proposal and as such, members were asked to direct additional feedback to the Chair.

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<td>10</td>
<td>AD(Edu) CS to collate feedback from the Committee on the proposed amendments to the Course Description and Learning Outcomes for COMP2560.</td>
<td>Ramesh Sankaranarayana</td>
<td>Completed</td>
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**Next meeting**

The next meeting is scheduled for Thursday, 6th August 2015 1:00PM – 2:30PM

Meeting Closed at 2:30pm.
Education 2015

Preamble

Education is any university’s core business. It is what distinguishes a research intensive university like the ANU from a world class research institute. CECS has a history of bold innovation in education with unique degree programs such as the bachelor level systems engineering program, the elite R&D degrees or the enhanced PhD study program. This document provides a set of goals and strategies that will enable CECS to maintain this level of educational leadership into the future.

Vision

To provide our students with a unique research-led education that instills curiosity and equips them with the knowledge and skills to articulate and solve problems that are yet to be encountered using technology that is yet to be developed.

The Environment

Education in CECS is delivered through the two research schools and is currently mainly focused on Bachelor and Masters level degree programs and a small number of associated extension and pathway programs. Additionally, there is a sprinkling of educational offerings to HDR students and the occasional public seminar and other outreach activity.

The principal educational challenges facing CECS are mostly not unique to us but are shared across the sector. They include long term shifts in the demography of the student body, increased internationalization, changes in student expectations and learning culture, a weak medium-term funding environment and disruption by digital technologies. Somewhat unique to CECS are the challenges associated with our relatively small scale, necessitating a strong focus on a small number of high quality programs.

Goals

1. Attract excellent students to all of our educational offerings.
   - Clearly articulate the unique value proposition of our degree programs and ensure that all staff are able to do so when communicating with potential students.
   - Engage in a small number of strategic international partnerships to establish exchange and articulation programs that deliver a reliable stream of high quality students.
   - Create targeted pathways for strategically important groups of domestic students.
   - Maintain or strengthen high entry standards through a combination of external and internal entry tests.
   - Involve high profile academic staff in the marketing of our educational programs.

2. Evolve our core programs based on high level advice from external stakeholders, student feedback and robust marketing and graduate outcome and destination data.
   - Base decisions on program level changes on all of educational, strategic, financial and political considerations including how they impact on the overall educational vision.
   - Establish a 5 year program review cycle with a final decision point in between external accreditation visits.
   - Maintain a small number of high quality degree programs both at Bachelor and Masters level.
3. Explore **innovative educational offerings** to complement the core degree programs and reach non-traditional student cohorts, including mid-career professionals.
   - Engage with the Public Service, the Military and industry to explore opportunities for targeted offerings in areas of educational or research leadership.
   - Focus on a small number of carefully selected initiatives.
   - Approach program delivery in this space with a business mindset and ensure that all parties derive strong benefits from any new initiative.

4. Support **modern high quality teaching methods** throughout our educational offerings.
   - Support small scale high quality educational research in both schools.
   - Conduct carefully controlled experiments with contemporary learning support and teaching methods to enable collection of robust data in this space.
   - Establish an online repository of teaching materials to enable portfolio approaches to course delivery.
   - Establish a 5 year course review cycle with a focus on delivery and assessment.

5. Foster a **culture of best practice in support and administration** of teaching programs across both schools.
   - Increase the levels of literacy in administrative and legislative requirements of course and program convenors.
   - Regularly review critical administrative processes with a focus on efficiency and compliance.
   - Provide strong academic leadership to the provision of technical and IT support services.

6. Institute **robust quality control mechanisms** at course and program level.
   - Establish a regular external benchmarking cycle at both the course and program level.
   - Institute a system of peer review of teaching.
   - Strengthen the role and profile of course convenors to provide oversight of teaching activities.
   - Clearly articulate expectations of educational leadership for academic promotion.

7. Focus on **outcomes** for our students.
   - Approach curriculum design with a view towards graduate outcomes and skills development.
   - Provide an environment that is supportive of extracurricular learning activities.
   - Clearly articulate what students gain from studying with us.
   - Regularly collect and review data on actual graduate outcomes and employability and use this data to inform program review processes.
Position Description

College/Division: CECS
Faculty/School/Centre: RSCS
Department/Unit: 
Position Title: Associate Director (Education)
Classification: Academic
Position No:
Responsible to: Director, Research School of Computer Science

Positions that report to this role: Program Convenors (incl. Coursework Masters and Graduate Diploma Computing), Honours Convenor, Course Convenors, Coursework Engaged Learning Coordinator

Delegation(s) Assigned: Delegated Authority Coursework (DAC) – 36, 38, 40, 41, 46, 47, 49, 51, 58, 59, 60, 61, 62, 63

PURPOSE STATEMENT:
The Associate Director (Education) is responsible for leading and managing the coursework education programs and maintaining the overall quality of those programs within the School. The position exists to support the Director of Research School of Computer Science by providing advice in relation to all education matters.

KEY ACCOUNTABILITY AREAS:
Position Dimension & Relationships:
The position will report to the Director of RSCS and will have significant interactions with the College Associate Dean (Education), the College Student Services, as well as the academic community as a whole. The Associate Director (Education) will also be expected to represent the School within the College and University in relation to education matters.

Role Statement:
1. Work with the Director to develop the School's strategic and operational plans in relation to education and actively contribute in the implementation of these plans.
2. Lead curriculum development, including new initiatives, and prepare proposals for consideration at academic staff meetings.
3. Manage relationships with internal and external stakeholders which will enhance the School's educational profile - including (but not limited to): Industry partners for internship programs, cross college relationships and other international and domestic institutions.
4. Manage the teaching workloads matrix. As requested assist the School Director in the allocation of staff to teaching activities, and the use of casual sessional staff and consultants. Where appropriate ensure that use of casual staff and consultants is in line with allocated budget.
5. Supervising the educational responsibilities of program convenors, honours convenors, course convenors and the Coursework Engaged Learning Coordinator
6. Chair the School examiners' meetings, course convenors' meetings, program convenors' meetings and the School curriculum development committee.
7. Lead the accreditation of School's educational programs and contribute to the external benchmarking and accreditation of College education.
8. Support and contribute to College marketing and student recruitment activities.
9. Be responsible for the provision of course and program advice through top-level management of the program convenors.
10. Attend and participate as a member of the College Education Committee, including presentation and
reporting of final results each semester. Represent the School on other Education committees in the University as appropriate.

11. Monitor, evaluate, and improve quality in the design and delivery of educational programs in the School.

12. Show a commitment to core School and College values of cultural diversity, equity and ethical practice and a healthy safe and fair workplace; and capacity to lead staff in implementing these values.

13. Perform other duties as required including acting as Director RSCS, College Associate Dean(Education) etc

References:
Program Convenor
Honours Convenor
Course Convenor
Coursework Engaged Learning Coordinator
Position Description

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<tr>
<th>College/Division:</th>
<th>CECS</th>
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<tr>
<td>Faculty/School/Centre:</td>
<td>RSCS</td>
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<tr>
<td>Department/Unit:</td>
<td>Position Convenor</td>
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<tr>
<td>Position Title:</td>
<td>Program Convenor</td>
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<tr>
<td>Classification:</td>
<td>Academic</td>
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<tr>
<td>Position No:</td>
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<tr>
<td>Responsible to:</td>
<td>Associate Director (Education)</td>
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<tr>
<td>Positions that report to this role:</td>
<td></td>
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<tr>
<td>Delegation(s) Assigned:</td>
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</table>

**PURPOSE STATEMENT:**


The Program Convenor is the person within an academic organisation unit (AOU) who has been delegated the authority for the management of a program and ensuring the academic requirements of the program are met.

The Program Convenor is a critical link between Course Convenor operations and the Student Administration functions concerning the Program for which they are responsible.

**KEY ACCOUNTABILITY AREAS:**

**Position Dimension & Relationships:**

Each Degree Program will have a Program Convenor. The Program Convenors will be appointed by the Director RSCS in consultation with the Associate Director (Education). They work closely with Course Convenors, the Coursework Engaged Learning Coordinator, and the Associate Director (Education), to ensure that the Program complies with AQF, Accreditation and other requirements; is complimentary to other Programs, and is reflective of end-user demand (facilitates transition to industry, further study, research etc.)

**Role Statement:**

**Curriculum**

- Review and suggest improvements to curriculum content, ensuring content meets the learning outcomes for the Program and that course objectives are consistent with Graduate Outcomes mapping
- Review and maintain program entry requirements
- Ensure compliance with ANU, AQF, Accreditation and other requirements
- Monitor changes in the external environment that may drive Program changes, and present these at appropriate forums/meetings

**Relationship Management**

- Drive alumni relations (in conjunction with CECS Alumni representative)
- Stakeholder relationships with *internal* customers (e.g. students, committees, Associate Director (Education), Course Convenors, Honours Convenor, Coursework Engaged Learning Coordinator, RSCS Director, Student Services, SRC) and *external* clients (e.g. industry, professional bodies, parents, media, partner universities)

**Marketing**

- Actively engage in outreach activities, such as Open Day, Orientation Week and Graduation
- Website – maintain Programs and Courses and local Degree Program web pages
- Promote further study options including Honours, Masters and Higher Degree Research (HDR)

**Operational**

- Provide advice and recommendations on matters pertaining to the progress of students through a program
• Engage with specific student cohorts, particularly from partner universities, to support and enhance engaged learning and articulation arrangements
• Consider applications for credit in consultation with Course Convenors, and in line with University Policy.
• Where the Degree forms part of a Double Degree, engage with Program Convenors from other Degree Programs at ANU to ensure best possible student outcomes are met
• Assist Course Convenors for core courses to ensure congruency of assessment tasks with the learning objectives
• Engage with students and Student Services, in regard to enrolment, attrition, completions, suspensions and requests for program exchanges
• Nominate suitable students for consideration of University and/or College prizes, medals and awards
• Oversee award of Honours (where applicable)

Review
• Monitor the Program and address issues affecting student success
• Support peer review of teaching into the Program
• Actively engage with an external Program review, including developing review documentation and any further requirements or activities as they arise

Resourcing
• Ensure coverage of courses, sufficient for Majors, etc.

Other
• Comply with all ANU policies and procedures, and in particular those relating to work health and safety and equal opportunity
• Deal with other education-related issues from time to time as required including acting as Associate Director (Education) or program convenor for other programs.

References:
Associate Director (Education)
Honours Convenor
Coursework Engaged Learning Coordinator
Course Convenor
College/Division: CECS
Faculty/School/Centre: RSCS
Department/Unit: 
Position Title: Honours Convenor
Classification: Academic
Position No: 
Responsible to: Associate Director (Education)

PURPOSE STATEMENT:
The Honours Convenor has delegated authority for the management of the Honours Program (including any AQF level 8 courses offered within that program) and ensuring the academic requirements of the program are met.

KEY ACCOUNTABILITY AREAS:
Position Dimension & Relationships:
The Honour Convenor will be appointed by the Director RSCS. They will work closely with the Program Convenors, including Convenors external to CECS (e.g. Research School of Science), the coursework Engaged Learning Coordinator, and the Associate Director (Education), to ensure that the Program complies with AQF, Accreditation and other requirements; is complimentary to other Programs, and is reflective of end-user demand (facilitates transition to industry, further study, research etc.)

Role Statement:
Curriculum
- Review and suggest improvements to curriculum content as applicable, ensuring content meets the learning outcomes for the Program and that course objectives are consistent with Graduate Outcomes mapping
- Review and maintain program entry requirements
- Ensure compliance with ANU, AQF, Accreditation and other requirements
- Thesis – Oversee expectations, format, supervisors, examiners, submission requirements and Intellectual Property (IP)
- Monitor changes in the external environment that may drive Program changes, and present these at appropriate forums/meetings
- Closely manage Honours within the context of relevant Degree Programs (including in-built Honours and +1 Honours options)

Relationship Management
- Drive alumni relations (in conjunction with CECS Alumni representative)
- Stakeholder relationships with internal customers (e.g. students, committees, Associate Director (Education), Course Convenors, Program Convenors, Engaged Learning Coordinators, RSCS Director, Student Services, SRC) and external clients (e.g. industry, professional bodies, parents, media, partner universities)

Marketing
- Source and provide advice on HDR options to suitable candidates from the Honours cohort
- Actively engage in Outreach activities, such as Open Day, Orientation Week and Graduation
• Website – maintain Programs and Courses and Honours Program web page

Operational
• Provide advice and recommendations on matters pertaining to the progress of students through the program
• Engage with specific student cohorts, particularly from partner universities, to support and enhance engaged learning and articulation arrangements
• Monitor the Program and address issues affecting student success
• Engage with students and Student Services, in regard to enrolment, attrition, completions, suspensions and requests for program exchanges
• Drive a Community of Practice
• Determine Honours results
• Nominate suitable students for consideration of University and/or College prizes, medals and awards

Review
• Support peer review of teaching into the Program
• Manage external benchmarking of thesis assessment
• Actively engage with an external Program review, including developing review documentation and any further requirements or activities as they arise

Resourcing
• Human resources – Source staff to assist with delivery of the Program (student supervisors, thesis examiners, tutors)
• Physical – Liaise with School Administration with regard to enrolled students, so that they can facilitate space allocation and I.T. support (provision of computer equipment, software etc)
• Deliver the Program, within a prescribed budget

Other
• Comply with all ANU policies and procedures, and in particular those relating to work health and safety and equal opportunity
• Deal with other education-related issues from time to time as required including acting as Associate Director (Education) or program convenor for other programs.
Position Description

College/Division: CECS
Faculty/School/Centre: RSCS
Department/Unit:
Position Title: Course Convenor
Classification: Academic
Position No:
Responsible to: Associate Director (Education)
Positions that report to this role:
Delegation(s) Assigned:

PURPOSE STATEMENT:
The Course Convenor has responsibility for the day to day academic operation of a course.

KEY ACCOUNTABILITY AREAS:

Role Statement:
Course development and review - Responsible for developing, reviewing and suggesting changes and/or improvements to official course information, as published online.

- Course description
- Learning outcomes
- Assessment criteria
- Pre-requisites/co-requisites/assumed knowledge
- Accreditation related information (ACS, EA, AQF and ANU requirements)
- Monitor changes in the external environment that may affect courses, and present these at appropriate forums/meetings

Course operation
- Devise lecture, tutorial/lab materials and assessment items
- Ensure Programs and Courses webpage, local Course webpage and Wattle page are correct and current
- Deliver the course
- Monitor student attendance, results, plagiarism
- Conduct the course in accordance with the ANU Code of Practice for teaching and learning (https://policies.anu.edu.au/ppl/document/ANUP_000726)

Relationship Management
- Internal – participation at Convenor meetings, input into Curriculum and Education Committees, engagement with Associate Director (Education), Program Convenors, Coursework Engaged Learning Coordinators, RSCS Director, Student Services, SRC, and students, etc.
- External - industry, professional bodies, parents, media

Review and Archiving
Collect, respond and act on feedback (from students, surveys, SRC etc.)
Archive results and course materials, in line with ANU record keeping requirements
Actively engage with an external course review, including developing review documentation and any further requirements or activities as they arise

Resources
- Human resources – in conjunction with School Administration, source staff to assist with delivery of the course (tutors, lecturers, guest lecturers, marking support, etc.)
- Physical – in conjunction with Student Services, source locations for delivering lectures, labs and tutorials
- Tools/Software – in conjunction with College I.T., ensure adequate and appropriate tools and software are sourced, updated and available
- Deliver the course, within a prescribed budget

Other
- Comply with all ANU policies and procedures, and in particular those relating to work health and safety and equal opportunity
- Deal with other education-related issues from time to time as required including acting as Program Convenor

References:
Associate Director (Education)
Program Convenor
Honours Convenor
Coursework Engaged Learning Coordinator
Position Description

College/Division: CECS
Faculty/School/Centre: RSCS
Department/Unit:
Position Title: Coursework Engaged Learning Coordinator
Classification: Academic
Position No:
Responsible to: Associate Director (Education)

Delegation(s) Assigned:

PURPOSE STATEMENT:
The Coursework Engaged Learning Coordinator actively enhances all aspects of student life by promoting quality and standards in teaching and learning relating to coursework students. They are also responsible for ensuring student access and equity within the School.

KEY ACCOUNTABILITY AREAS:
Position Dimension & Relationships:
The Coursework Engaged Learning Coordinator reports to the Associate Director (Education) and is expected also to work closely with Student Services, Course Convenors, Program Convenors, the Honours Convenor, the HDR Engaged Learning Coordinator, and the Pro Vice-Chancellor (Student Experience).

Role Statement (in relation to coursework students):
1. Student Recruitment: promote program including working with partners to identify pathways into program and opportunities for joint programs
2. Student Experience: drive the whole coursework student experience from first approach, to application, arrival, period of enrolment, submission, graduation to being an CECS alumni
3. Relationship management: work with other groups on matters related to coursework students, including ADean(Education) and team, the ANU Computer Science Student Association, the ANU Student Association (ANUSA), the PVC(SE), the CECS Alumni position etc
4. Internships and Exchanges: Source, develop and promote internships, international exchange opportunities, training opportunities etc for coursework students
5. Resourcing/Support: identify space, infrastructure and environmental needs of coursework students and seek to address these
6. Review/Reflection: monitor programs, undertake surveys, focus groups and external reviews, network with other Universities to source best practice methodologies relating to coursework students

References:
Associate Director (Education)
Program Convenor
Honours Convenor
Course Convenor
Position Description

College/Division: ANU College of Engineering and Computer Science
Faculty/School/Centre: Research School of Computer Science
Department/Unit: 
Position Title: Associate Director (Research)
Classification: TBA
Position No: TBA
Responsible to: Director, Research School of Computer Science

Positions that report to this role:
- HDR Engaged Learning Coordinator
- Research Support and Outcomes Coordinator
  (dotted reporting from: HDR Convenor and Delegated Authority)

Delegation(s) Assigned:

PURPOSE STATEMENT:
The Associate Director (Research) is responsible leading and managing the research programs and activities in the School. The position exists to support the Director, Research School of Computer Science by providing advice in relation to all research matters including identifying emerging research areas, supporting academic research performance and ensuring effective recruitment to support the School’s strategic directions.

KEY ACCOUNTABILITY AREAS:

Position Dimension & Relationships:
The position will report to the Director of the Research School of Computer Science and will have significant interactions with the College Associate Dean (Research), the College Research Office and the wider academic community. The Associate Director (Research) will also represent the School within the College and the University in relation to research matters.

Role Statement:
1. Together with the Director develop the School’s strategic and operational plans in relation to research and research training, and actively contribute in the implementation of these plans.
2. Provide strategic advice to the Director on research matters, including existing research areas their strengths and needs, emerging and new research areas for consideration, our HDR program, research facilities and the general resourcing of research activities.
3. Provide advice to the Director on attraction and retention strategies, actively contribute to workforce planning, and take a lead role in the recruitment of School academic positions.
4. Oversee the HDR program within the School with supervision of the HDR Engaged Learning Coordinator, dotted line supervision of the HDR Convenor & Delegated Authority (RSCS) and liaison with the Associate Dean (HDR).
5. Supervision of the Research Support and Outcomes Coordinator with the goals of i) identifying, developing and facilitating opportunities for academic staff in the School to fund their research and to develop research partnerships, and ii) ensuring that the research outcomes of the School are both correctly recorded through mechanisms such as HERDC and ERA and are more generally promoted through web pages, news items etc.
6. Serve as an ex officio member of the CECS Research Committee.
7. Perform other duties as required including acting as Director RSCS, the College Associate Dean(Research) etc

References:
- HDR Student Engaged Learning Coordinator
- Research Support and Outcomes Coordinator
- HDR Convenor and Delegated Authority (RSCS)
**Position Description**

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<thead>
<tr>
<th>College/Division:</th>
<th>ANU College of Engineering and Computer Science</th>
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<tbody>
<tr>
<td>Faculty/School/Centre:</td>
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<td>Department/Unit:</td>
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<tr>
<td>Position Title:</td>
<td>HDR Convenor &amp; Delegated Authority (RSCS or RSEng)</td>
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<tr>
<td>Classification:</td>
<td>TBA</td>
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<tr>
<td>Position No:</td>
<td>TBA</td>
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<tr>
<td>Responsible to:</td>
<td>Associate Dean (HDR)</td>
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<td>(Dotted line reporting to ADir(Research) in relevant Research School)</td>
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<td>Number of positions that report to this role:</td>
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<td>Delegation(s) Assigned:</td>
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**PURPOSE STATEMENT:**
The HDR Convenor & Delegated Authority is responsible for all academic matters relating to the research degree programs that operate within the School.

**KEY ACCOUNTABILITY AREAS:**

**Position Dimension & Relationships:**
The position will report to the Associate Dean(HDR) but will also have significant interactions with the Associate Director (Research) from the relevant research school, the College Research Student Services and the wider academic community.

**Role Statement:**

1. Academic evaluation of applications for admission to the higher degree research programs of the relevant research school with authority to admit students.
2. Rank students according to agreed processes within the College including participation in the College Scholarship Ranking Committee
3. Evaluate academic progress of HDR students against requirements of ANU (annual reports, thesis proposal review etc), identifying and dealing with problems.
4. Oversee the HDR examination process including approval of examiners and recommendation of action in response to examiner reports.
5. Resolve academic disputes involving HDR students
6. Deal with other HDR and research matters from time to time as required including acting as Associate Dean(HDR) or RSCS Associate Director (Research)

**References:**

- Associate Dean (HDR)
- Associate Director(Research) for RSCS or RSEng

For assistance please contact HR Division Ph. 6125 3346
Purpose Statement:
The HDR Engaged Learning Coordinator is responsible for promoting the HDR program, cultivating a vibrant and attractive HDR community within the School, developing internships and enrichment opportunities for HDR students, and assisting students with non-academic matters that impact on their progress.

Key Accountability Areas:

Position Dimension & Relationships:
The HDR Engaged Learning Coordinator reports to the Associate Director (Research) and is expected also to work closely with the HDR Convenor & Delegated Authority (RSCS), the College HDR student services team, the College Associate Dean (HDR).

Role Statement:
1. Student Recruitment: promote program including working with partners to identify pathways into program and opportunities for joint programs
2. Student Experience: drive the whole HDR student experience from first approach, to application, arrival, period of enrolment, submission, graduation to being an CECS alumni
3. Relationship management: work with other groups on matters related to HDR students, including ADean(HDR) and team, the ANU Computer Science Student Association, the ANU Postgraduate and Research Student Association (PARSA), the PVC(RT) and PVC(SE), the CECS Alumni position etc
4. Internships and Exchanges: Source, develop and promote internships, international exchange opportunities, training opportunities etc for HDR students
5. Resourcing/Support: identify space, infrastructure and environmental needs of HDR students and seek to address these
6. Review/Reflection: monitor program, undertake surveys, focus groups and external reviews, network with other Universities to source best practice methodologies relating to HDR students
7. Perform other duties as required including acting as RSCS Associate Director (Research).

References:
Associate Director (Research)
HDR Convenor and Delegated Authority (RSCS)
Position Description

College/Division: ANU College of Engineering and Computer Science
Faculty/School/Centre: Research School of Computer Science (RSCS)
Department/Unit: Research Support and Outcomes Coordinator
Position Title: Research Support and Outcomes Coordinator
Classification: TBA
Position No: TBA
Responsible to: Associate Director (Research)

POSITION STATEMENT:
The Research Support and Outcomes Coordinator is responsible for all matters related to research support and research outcomes. This includes issues related to research funding, facilities, and reporting.

KEY ACCOUNTABILITY AREAS:
Position Dimension & Relationships:
The role answers to the Associate Director (Research) and works closely with the HDR Engaged Learning Coordinator, the College Research and Innovation Office (RIO), the College Associate Dean (Research), and with individual academics.

Role Statement:

1. Provide mentoring for staff making grant applications with regard to quality, relevance, budgetary issues, and funding opportunities.
2. Advise and support RIO in research grant matters. In particular engage with the internal grant application process.
3. Seek opportunities to increase external research funding including through fellowship applications.
4. Manage Collaborative Research Projects with NICTA and similar arrangements with other organizations.
5. Promote valuable commercialization opportunities and creation of start-ups.
6. Advise the website team to ensure School research information is appropriately represented and accessible at the website.
7. Nominate HDR students and academics for various School/College/University/Australian/international awards.
8. Manage School wide seminar series (external & internal VIP talks)
9. Support admin to ensure proper (HERDC, ERA, etc) data collection and reporting
10. Monitor rating agencies (such as QS) and take action when necessary to ensure favourable evaluation and rating of the school.
11. Take a major role in the ERA process for FoR08
12. Deal with other research-related issues from time to time as required including acting as Associate Director (Research)
13. Perform other duties as required including acting as RSCS Associate Director (Research).

References:
Associate Director (Research)
HDR Engaged Learning Coordinator
Peer Review Process

Course Convenor’s report

The Convenor of the course will provide a report, no more than 5 pages in length, that includes all of the relevant information regarding the course. This will include the following:

1. Links to the course page on P&C.
3. Links to the course home page.
4. A description of the delivery of the course (mode of delivery, relationship between lectures, tutorials/labs and assignments. How these map to the learning outcomes).
5. Examples of marked assessment items (including feedback).
6. Feedback regarding the course, include informal feedback and the SELS responses to the open ended questions.
7. Any other information that may be required of them by the peer review group.

Peer review

The peer review will be conducted by a small group of 3-4 people. They will read the Convenor’s report for each of the courses under review and ask for any other information that may be required, as appropriate. The group will produce a short report, no more than 2 pages in length, identifying issues with the course, if any, and providing suggestions for improvement. This report will be handed over to the Chair of the CDC. It is anticipated that the workload for each member of the group will be no more than a day’s worth of work. It is expected that the review process will take no longer than a month, from the time all of the Convenors reports are made available to the peer review group.

The questions that the group addresses may include the following:

1. Are the lecture material, tutorial/lab material and assessment related to the course objectives?
2. Are all the course objectives covered by the assessment?
3. Are the structure of the course and the teaching modes (projects, laboratory reports, seminars, lectures, etc.) supportive of the students in achieving their learning outcomes?
4. Is all of the course material available on the course website? Is it easy to access and navigate?
5. Is the feedback provided to the submitted assessment items timely and appropriate?
SELS agreement rate for Q6

Below 50%
1. comp3500
2. comp4130 (twice in a row)
3. comp4500
4. comp8100

Between 50% and 59%
1. comp2300
2. comp3100
3. comp3530
4. comp6340
5. comp6700

Proposed action

First time below the threshold
1. If the course has a SELS score over 50%, is co-badged, with one of the versions having a score over 60%, then the convenor writes a report evaluating the two versions.
2. Else, have a small group (3-4 people) peer review the course and provide feedback.

Second time below the threshold
1. The course is externally audited and based on the feedback, appropriate actions are taken.
Guidelines on writing learning outcomes

Learning outcomes describe what a student is expected to know and to be able to do by the end of the subject or course. Clear learning outcomes should benefit students in a number of ways. Statements of learning outcomes should explain to students what they will learn on successful completion of a subject or course. They are also an indication to students of what they may be expected to demonstrate in assignments and examinations. The preparation of learning outcomes can assist academics in designing and aligning course content, teaching and learning strategies and resources, and assessment methods.

The Australian Qualification Framework (AQF) course level descriptors should be kept in mind during the development of course-level or subject-level learning outcomes. In the AQF, learning outcomes are depicted in the form of a typology of dimensions, knowledge, skills and the application of knowledge and skills. These are briefly defined as:

- **Knowledge** is what a graduate knows and understands;
- **Skills** are what a graduate can do; and
- **Application of knowledge and skills** is the context in which a graduate applies knowledge and skills.

In writing learning outcomes statements it is important to focus foremost on what a student should know and be able to do and the ways in which this knowledge and skill might be demonstrated through assessment. This requires shifting attention from the content of a subject or course (in overly simple terms, what staff teach) towards student attainment (that is, what the student should be able to do on successful completion of the subject or course).

When writing learning outcomes we should bear in mind:

- the kind of knowledge and skills that are involved
- the level of understanding it is desirable for students to achieve
- how this learning is to be demonstrated.

A common way of approaching this is to use Bloom’s taxonomy of knowledge. The table to follow is based on a relatively recent revision of the taxonomy by Anderson and Krathwohl (2001)

<table>
<thead>
<tr>
<th>Level</th>
<th>Tasks</th>
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<tbody>
<tr>
<td>Remembering</td>
<td>Define, describe, draw, find, identify, label, list, match, name, quote, recall, recite, tell, write</td>
</tr>
<tr>
<td>Understanding</td>
<td>Classify, compare, exemplify, conclude, demonstrate, discuss, explain, identify, illustrate, interpret, paraphrase, predict, report</td>
</tr>
<tr>
<td>Applying</td>
<td>Apply, change, choose, compute, dramatise, implement, interview, prepare, produce, role play, select, show, transfer, use</td>
</tr>
<tr>
<td>Analysing</td>
<td>Analyse, characterise, classify, compare, contrast, debate, deconstruct, deduce, differentiate, discriminate, distinguish, examine, organise, outline, relate, research, separate, structure</td>
</tr>
<tr>
<td>Evaluating</td>
<td>Appraise, argue, assess, choose, conclude, critique, decide, evaluate, judge, justify, predict, prioritise, prove, rank, rate, select, monitor</td>
</tr>
<tr>
<td>Creating</td>
<td>Construct, design, develop, generate, hypothesise, invent, plan, produce, compose, create, make, perform, plan, produce</td>
</tr>
</tbody>
</table>
Phrasing learning outcomes in high general terms such as ‘remember’ or ‘understand’ is usually not helpful. It is best to aim for higher-level verbs which go beyond remembering or understanding, and which require analysis, evaluation or creation. It is good to consider phrases that describe how learning will be demonstrated (e.g. ‘communicate effectively and succinctly through oral presentation’, ‘apply theory critically to analyse a planning strategy’)

*Examples of subject-level learning outcomes from the University of Melbourne Handbook:*

On successful completion of this subject, students should be able to:

- link structural design concepts and relate these to current construction practices;
- interpret concrete structural drawings and be conversant with engineering terminology;
- communicate construction solutions by means of sketches and drawings;
- propose and evaluate alternate construction systems.

On successful completion of this subject, students should be able to:

- Explain the characteristics of successful businesses;
- Identify the key activities and processes used by businesses to achieve their goals and objectives;
- Make business decisions and identify the financial consequences that flow from those decisions;
- Evaluate the financial performance of businesses;
- Make and justify accounting policy decisions in accordance with generally accepted accounting principles.

There are no fixed rules for the number of learning outcomes. It will depend on whether you are considering the outcomes for a course or a subject. On average, a subject typically has about four - six learning outcomes.

Clearly, assessment tasks should be closely linked to subject and course learning outcomes. There are two levels that need to be considered in aligning assessment with learning outcomes within the AQF:

1. Explicitly linking subject-level outcomes to course-level outcomes
2. Ensuring that subject assessment tasks are designed so that students demonstrate the subject-level learning outcomes
The following table offers advice on matching assessment to subject-level and course-level learning outcomes. It has been adapted from the *Guide for reviewing assessment*, available at http://www.cshe.unimelb.edu.au/resources_teach/assessment/docs/GRA.pdf

<table>
<thead>
<tr>
<th>Questions</th>
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<tbody>
<tr>
<td>In what ways is it ensured that assessment is matched to subject and course learning outcomes, including generic skills?</td>
<td></td>
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<tr>
<td>For example:</td>
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<tr>
<td>• Are the relationships between subject learning outcomes, teaching and learning activities, and assessment tasks made explicit?</td>
<td></td>
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<tr>
<td>• Taken together, does the suite of assessment tasks that a student experiences over the course of their studies align with the learning outcomes specified for that course?</td>
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**Critical analysis & oral communication**

**Subject-level learning outcomes** include: “Students will be able to critically analyse scientific research papers”; and “Students will be able to communicate effectively and succinctly through oral presentation”

**Learning:** Student groups are assigned a scientific paper to review and describe as an oral presentation (several weeks later). One lecture is devoted to modelling the process of analysing a scientific paper. Students are encouraged to practise their talks and provide feedback within their group (peer review).

**Assessment:** Students are assessed, individually, on the part of the paper that they each analysed and presented. 70% of the mark is for demonstrated understanding and explanation, 30% for the technical quality of the presentation.

The connections between the learning outcomes, teaching and learning process and assessment of the group assignment are made explicit to students early in semester, both in class and via the subject website (but are not detailed in the Handbook entry).

**Course mapping of subject-level to course-level learning outcomes**

Each subject:

1. Subject-level learning outcomes are mapped onto the course-level outcomes
2. This information is used to produce a ‘course map’, showing the learning outcome combinations across the subject-levels of the course;
3. Learning and assessment tasks for these subjects are plotted onto the course map.

Course mapping is used to identify gaps or redundancies in the development and assessment of the course-level learning outcomes, and to check that the tasks (both learning and assessment) increase in complexity* across the year levels, and are linked to higher level verbs from Bloom’s revised taxonomy.

*see also *Guide for reviewing assessment*, pp. 8-9
Learning outcomes often tend to establish threshold levels of attainment for passing a subject. Grading criteria can assist in indicating what a student needs to demonstrate to achieve a higher grade. The criteria sheets will have a set of statements that point to the different levels of a students’ performance from H1 to Unsatisfactory. Rather than focusing on the threshold levels of attainment stated in the learning outcomes, students can also see the criteria for demonstrating higher-level learning.

Although learning outcomes are a useful articulation of our intent as educators, they should not drive the entire educational agenda. Good teaching and learning often occurs informally and unplanned through the interaction of teachers and their students. Learning will and should occur that has not been documented in course and subject learning outcomes.