PROPOSAL TO REVISE A PROGRAM

1. MAIN FEATURES OF PROPOSAL

1.1 Program name

Computer Science Co-Op

1.2 Abbreviation

CMP Co-Op

1.3 Program code

COMPKI3978

1.4 Staff Contact

Dr Oliver Diessel

ext/email

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1.5 Program Authority

School: School of Computer Science and Engineering
AOU code: E250

Faculty: Engineering

1.6 Proposed Revision Summary Checklist

The Co-Op program is to be aligned more closely with the standard Computer Science program to offer students more flexibility.

The proposed changes entail:
- Requiring students to take the undergraduate course COMP3311 Database Systems in Year 2 instead of the postgraduate course COMP9311 Introduction to Database Systems in Year 1;
- Eliminating the requirement that students take an Advanced Database course in Year 2; and
- Recommending that students take COMP3121 Algorithms and Programming Techniques and COMP3331 Computer Networks and Applications as electives instead of requiring them to take these courses as core.

The revision proposes:

√ to vary the mix of compulsory core and elective courses

√ to increase or decrease the elective choices available

(Tick relevant box)	YES	NO
1.7 Authorisation		
University Librarian		√
Registrar's Nominee		√
Dean		√
1.8 Consultation Process	√	
1.9 Planning Office	√	
1.10 Units of credit	√	
1.11 General Education program (for undergraduate programs only)	√	

## 2.	PROGRAM DETAILS

### 2.1	Current Enrolment and EFTSU

Stage 1	4

Stage 2	7

Stage 3	3

Stage 4	4

### 2.2	Details of Existing Program

PROPOSED ENTRY IN THE FACULTY HANDBOOK

Computer Science Co-op - COMPK13978

Plan Summary

Faculty: Faculty of Engineering
School: School of Computer Science and Engineering
Contact: http://www.cse.unsw.edu.au
Program: 3978 - Computer Science
Award(s): Bachelor of Science (Major)

Plan Outline

The Computer Science Co-op Program was established in 2001 to provide a link between industry and high achieving students at CSE. It provides money and industry training for selected undergraduate students in Computer Science.

The Computer Science Co-op Program is based on the standard Computer Science undergraduate program but with the following special features:

- CSE academics and senior managers from industry have jointly planned the program.
- Co-op students receive structured industrial training and gain valuable work experience with up to two different employers.
- The Computer Science Co-op Program offers two industrial placements totalling approximately 18 months.
- Co-op scholars receive a generous tax-free scholarship (See the Co-op Website for details). This is paid in fortnightly installments and can be used at the student's discretion.
- On graduation, sponsors are always looking to recruit Co-op Scholars.

For high achieving students the Co-op Program offers an ideal combination of challenge and opportunity.

More info about the Scholarship is available on the Co-op Website

Plan Structure

YEAR 1
SEMESTER 1

- COMP1917 Higher Computing 1 (6 UOC)
- MATH1081 Discrete Mathematics (6 UOC)

And **ONE** of:

- MATH1131 Mathematics 1A (6 UOC)
- MATH1141 Higher Mathematics 1A (6 UOC)

- Computer and Science Electives* (6UoC)

SEMESTER 2

- COMP1927 Higher Data Str. & Algos (6 UOC)

And **ONE** of:

- MATH1231 Mathematics 1B (6 UOC)
- MATH1241 Higher Mathematics 1B (6 UOC)

- Computer and Science Electives* (12UoC)

* NOTES:
- Electives are chosen from areas such as physics, chemistry, psychology, economics, philosophy, languages, arts, etc.
- It is recommended that Co-Op Scholars take ENGG1000 Engineering Design as one of their electives in Year 1
- Co-Op Scholars are permitted to complete a maximum of 30 UOC of Level 1 electives

YEAR 2
SEMESTER 1

- COMP2041 Software Construction (6 UOC)
- COMP2121 Microprocessors & Interfacing (6 UOC)
- COMP2911 Eng. Design in Computing (6 UOC)
- COMP3311 Database Systems (6UoC)

SEMESTER 2

- COMP4904 Industrial Training 1 (18 UOC)

- General Education (6UoC)

YEAR 3
SEMESTER 1

- COMP3141 Software System Design and Implementation (6 UOC)
- SENG4921 Professional Issues and Ethics (6 UOC)

- Computer and Science Electives* (12UoC)

SEMESTER 2

- COMP4905 Industrial Training 2 (15 UOC)

- Computer and Science Electives* (6UoC)
- General Education (3UoC)

* NOTES:
- It is recommended that Co-Op Scholars take either COMP3121 Algorithms & Programming Tech or COMP3821 Ext Algorithms & Prog. Techniques as one of their electives in Year 3.

- It is also recommended that Co-Op Scholars take either [COMP3331 Computer Networks & Applications](#) or [COMP3931 Ext Computer Networks & App](#) as one of their electives in Year 3.

YEAR 4
SEMESTER 1

- [COMP4906 Industrial Training 3](#) (15 UOC)

- Computer and Science Electives (6UoC)
- General Education (3UoC)

SEMESTER 2

- Level 3/4 Computer Science Electives* (24UoC)

* NOTES:
- Electives, COMP electives, and General Education courses may be allocated between first and second semesters according to the student's preference, but the total uoc per semester should be 24.

2.3   Proposed Revision in Detail

Motivation for Revision

One of the strengths of the Computer Science program at UNSW is its flexibility. The program offers 12½ elective courses in total, only 4 of which must be taken as computing courses at Year 3 or 4 levels. The program thus allows students to study a second major, such as another science, a language, or mathematics, or even to graduate with a double Comp Sci major.

Unfortunately, our Computer Science Co-Op Scholars are required to sacrifice much of this flexibility. The number of electives is reduced from 12½ to 8, and 5 of those that remain must be taken as computing courses at Year 3 or 4 levels. This makes it infeasible for them to take a second major. Our scholars also argue that the additional required courses, while sometimes useful, are not necessarily beneficial. Instead, they would prefer to have some more freedom to make course choices that align with their interests and goals.

Proposed Revision

The proposed changes:

1. Increase the number of elective courses from 8 to 11, to just 1½ less than Computer Science offers. The number of computing electives to be taken at Year 3 or 4 levels would be reduced from 5 to 4 to align the program with the vanilla Comp Sci program. However, it should be noted that scholars are required to take an additional level 3 course in Year 2 (see point 2.).
2. Require scholars to take the more demanding undergraduate level COMP3311 Database Systems course in Year 2 instead of the postgraduate level COMP9311 course in Year 1.
3. Relax the requirement that scholars take one of the advanced database courses, which are currently perceived as being of little value except to those wishing to specialize in this area.
4. Relax the requirement that scholars take COMP3121 Algorithms and Programming Techniques and COMP3331 Computer Networks and Applications; these courses are to become recommended electives instead.

Consultation and Approval Process

The proposal was developed in consultation with the students – 9 students participated in an email discussion, which all students were able to view.

Sponsors, scholars and alumni were thereafter asked to provide feedback on the proposal and to either approve or reject the suggested revision. The proposal was unanimously endorsed by the responders, who included 5 organisations that sponsor 12 of our 18 current students, 4 current scholars (2 of which had not previously participated in the discussion) and 2 alumni.

2.4   Units of credit

Stage 1   48

Stage 2   48

Stage 3   48

Stage 4   48

Total units of credit for the program   192

Full-time program load equivalence (EFTSU)

2.5   Date of Last Program Revision

2.6   Next Program Review Date

2.7   Student Impact Statement/Transitional Arrangements

Given the small number of students involved, it is proposed that current students be permitted to merge into the revised program as they wish.

2.8   General Education program (for undergraduate programs only)

The proposal does not affect this component.

2.9   Alternative Delivery of Programs

Not applicable.

2.10   Information Technology Requirements for students (for all programs)

The proposal does not affect this component.

3.   CROSS REFERRAL

The proposed changes may only directly impact CSE course participation. With increased flexibility some students may take more courses in other Schools.

4.   COURSE DETAILS

The proposal does not envisage changes to any course details.

5.   RESOURCE STATEMENT

The proposal does not envisage changes to this component.

6.   AUTHORISATION

6.1   University Librarian's Endorsement

I have examined the Library needs related to the above proposal and certify that existing Library holdings, staffing, services and accommodation are adequate / inadequate (delete one) to cover the demands that are inherent in it.

Appropriate arrangements for the use of digitised material to support this program have been made by the Program Authority with the University Librarian.

Further Comments:

University Librarian
    /   /2005

6.2   Dean's Approval

I have examined the resource implications of the above proposal in regard to staff, space, materials, equipment, capital funds, and computing, and certify that:

6.2.1   (i)   the proposal involves no additional resources. (A statement from the Head of School explaining how this can be achieved must be provided below); or

(ii)   the proposal involves additional resources and it is proposed to redeploy existing resources within the faculty. (A statement from the Head of School explaining how this will be achieved must be provided below); or

(iii)   the proposal involves additional resources to be obtained as set out below; or

(iv)   the additional resources essential to bring the proposal into effect cannot be found within resources available to the faculty.

6.2.2   **Fees** (delete if not applicable):

- a fee will not be charged for this program (other than HECS)
- a fee will be charged for this program for local fee-paying students
- a fee will be charged for international students

If a fee is to be charged, the Dean must certify as follows:

I have ensured that the Vice-Chancellor has been advised of the proposed fee arrangements, and note that approval of fee arrangements is needed before the new program can be implemented.

6.2.3   the proposal conforms to the University's commitment to Equal Opportunity in Education.

Statement from Head of School on Source of Additional Resources and/or Further Comments:

Dean
    /   /2005