

PROPOSAL TO REVISE A PROGRAM

1. MAIN FEATURES OF PROPOSAL

1.1 Program name
Bachelor of Science
(Computer Science)

1.2 Abbreviation
BSc (CompSci)

1.3 Program /Plan code

3978	BSc (CompSci)
COMPK13978	BSc (CompSci) Coop
COMP13983	BSc (CompSci) BSc
COMP13968	BSc (CompSci) BA
COMP13982	BSc (CompSci) BDM
COMP13529	BCom BSC (CompSci)
COMP13042	BE (Chem) BSc (CompSci)
COMP13102	BE (Ind. Chem) BSc (CompSci)
COMP13641	BE (Tele) BSc (CompSci)
COMP13725	BE (Elec) BSc (CompSci)
COMP13655	BE (Photo) BSc (CompSci)
COMP13730	BE (Civil) BSc (CompSci)
COMP13735	BE (Env) BSc (CompSci)
COMP13746	BE (Surv) BSc (CompSci)
COMP13711	BE (Aero/Manf/Mech/Mtrn/Nav) BSc (CompSci)

1.4 Staff Contact Dr Tim Lambert **ext/email** lambert.tim@cse.unsw.edu.au
CompSci Program Director x56496

1.5 Plan Manager/Program Authority

Program/Plan	Degree	Plan Manager	Primary Program Authority
3978	BSc (CompSci)	COMPSC	COMPSC
COMPK13978	BSc (CompSci) Coop	COMPSC	COMPSC
COMP13983	BSc (CompSci) BSc	COMPSC	COMPSC
COMP13968	BSc (CompSci) BA	COMPSC	COMPSC
COMP13982	BSc (CompSci) BDM	COMPSC	COMPSC
COMP13529	BCom BSC (CompSci)	COMPSC	COMM
COMP13042	BE (Chem) BSc (CompSci)	COMPSC	CHEM
COMP13102	BE (Ind. Chem) BSc (CompSci)	COMPSC	CHEM
COMP13641	BE (Tele) BSc (CompSci)	COMPSC	TELE
COMP13725	BE (Elec) BSc (CompSci)	COMPSC	ELEC
COMP13655	BE (Photo) BSc (CompSci)	COMPSC	PHOT
COMP13730	BE (Civil) BSc (CompSci)	COMPSC	CIVIL
COMP13735	BE (Env) BSc (CompSci)	COMPSC	CIVIL
COMP13746	BE (Surv) BSc (CompSci)	COMPSC	SURV
COMP13711	BE (Aero/Manf/Mech/Mtrn/Nav) BSc (CompSci)	COMPSC	MECH

School: Computer Science and Engineering **Faculty:** Engineering **AOU code:** E250

1.6 Proposed Revision Summary Checklist

to change the name of the program	✓	to amend the program structure
to increase the program requirements		to reduce the program requirements
✓ to vary the mix of compulsory core and elective courses	✓	to increase or decrease the elective choices available
to vary the unit of credit value of courses/stages		to re-arrange the program by introducing, adding or deleting a major stream of study
to offer the program by alternative means eg. distance delivery		to increase the research content of the program
to charge fees	✓	Other (specify)
		In addition to the above, to implement approved "major" options from program 3978 to all combined degree programs.

(Tick relevant box)

YES NO

1.7 Authorisation

Has this proposal received endorsement from the: **University Librarian**

Has this proposal received endorsement from the: **Registrar's Nominee**

Has this proposal received approval from the: **Dean**

1.8 Consultation Process

A copy of the revision has been forwarded for comments to COMM, SCI, ARTS, ENG.

✓

1.9 Planning Office

Does this proposal fit in with your Faculty's enrolment profile? Has the Planning Office been informed if the enrolment profile will be altered by the proposal?

✓

1.10 Units of credit

Does the proposed revision confirm to the University's policy on units of credit? Provide details, particularly where there is a divergence from this policy, under section 2.4.

✓

1.11 General Education program (for undergraduate programs only)

Does the proposed revision conform to the University's policy on General Education? (Undergraduate programs must include: (i) 12 units of credit in General Education courses and, (ii) 56 hours of instruction in professional ethics and social responsibility of graduates.) Provide details, particularly where there is a divergence from this policy, under section 2.8.

✓

2. PROGRAM DETAILS

2.1 Current Enrolment and EFTSU

Program/Plan	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
3978	77	68	54	25	0
COMPK13978	0	7	3	2	0
COMP13983	7	4	7	4	0
COMP13968	5	5	3	2	0
COMP13982	21	7	6	1	0
COMP13529	0	2	1	2	0
COMP13042	0	0	0	0	0
COMP13102	0	0	0	0	0
COMP13641	0	0	0	0	1
COMP13725	17	12	7	4	4
COMP13655	0	0	0	0	0
COMP13730	0	1	2	1	0
COMP13735	0	0	0	0	0
COMP13746	0	0	0	0	0
COMP13711	0	0	1	5	3

2.2 Details of Existing Program

CURRENT ENTRY IN THE FACULTY HANDBOOK, WITH PROPOSED REVISIONS CLEARLY INDICATED

OR PROPOSED ENTRY IN THE FACULTY HANDBOOK

BSc Computer Science (3978)

Program Structure

Year 1

- COMP1917 Higher Computing 1 (6 UOC)
- COMP1927 Higher Data Str. & Algos (6 UOC)
- MATH1081 Discrete Mathematics (6 UOC)

And ONE of:

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

And ONE of:

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

Plus:

- Electives (18 UOC)

Note: ENGG1000 (Engineering Design) is designed for students with a Computing Major to choose it in semester 1 and is highly recommended. ENGG1811 (Computing for Engineers) is not designed for students with a Computing Major.

Electives: Computer science has mathematics and computing courses in year 1, representing five out of eight courses for a full-time student. Electives are chosen from physics, information systems, chemistry, philosophy, psychology, geography, economics and many other disciplines. ENGG1000 is a recommended elective.

Students may complete a maximum of 30UoC of First Year electives.

Year 2

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

Plus:

- Electives (24 UOC)
- General Education (6 UOC)

Common electives include GMAT4900, mathematics (many choices), psychology, geography, biology, chemistry, physics, economics, arts, more first year courses, material that follows on from first-year electives, and information systems.

Year 3

- COMP3711 Software Project Management (6 UOC)
- SENG4921 Professional Issues and Ethics (6 UOC)

Plus:

- Level 3/4 Computer Science Electives (24 UOC)
- Electives (6 UOC)
- General Education (6 UOC)

Students proceeding to the Honours year must take at least six level 3 courses in computing or other disciplines.

BSc Computer Science (Coop) COMPK13978

Plan Structure

YEAR 1

- COMP1917 Higher Computing 1 (6 UOC)
- COMP1927 Higher Data Str. & Algos (6 UOC)
- MATH1081 Discrete Mathematics (6 UOC)
- Electives (18UoC)

And **ONE** of:

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

And **ONE** of:

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

Note: ENGG1000 (Engineering Design) is designed for students with a Computing Major to choose it in semester 1 and is highly recommended. ENGG1811 (Computing for Engineers) is not designed for students with a Computing Major.

Electives: Electives are chosen from physics, information systems, chemistry, philosophy, psychology, geography, economics and many other disciplines. ENGG1000 is a recommended elective.

Students may complete a maximum of 30UoC of First Year electives.

YEAR 2

- COMP2121 Microprocessors & Interfacing (6 UOC)
- COMP2041 Software Construction (6 UOC)
- COMP2911 Eng. Design in Computing (6 UOC)
- COMP3311 Database Systems (6 UOC)
- General Education (6UoC)
- COMP4904 Industrial Training 1 (18 UOC)

YEAR 3

- COMP3711 Software Project Management (6 UOC)
- SENG4921 Professional Issues and Ethics (6 UOC)
- COMP4905 Industrial Training 2 (15 UOC)
- Electives (18UoC)
- General Education (3UoC)

Note: It is recommended that Co-Op Scholars take either COMP3121 Algorithms & Programming Techniques or COMP3331 Computer Networks & Applications as one of their electives in Year 3.

YEAR 4

- COMP4906 Industrial Training 3 (15 UOC)
- Electives (6UoC)
- General Education (3UoC)
- Level 3/4 Computer Science Electives* (24UoC)

BSc/BSc Computer Science (COMPA13983)

Program Structure

Year 1

- COMP1917 Higher Computing 1 (6 UOC)
- COMP1927 Higher Data Str. & Algos (6 UOC)

And ONE of:

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

And ONE of:

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

Plus:

- Level 1 Science Elective (24 UOC)

Year 2

- COMP2041 Software Construction (6 UOC)
- COMP2121 Microprocessors & Interfacing (6 UOC)
- COMP2911 Engineering Design 2 (6 UOC)
- MATH1081 Discrete Mathematics (6 UOC)

Plus:

- Level 2 Science Elective (24 UOC)

Year 3

- COMP3711 Software Project Management (6 UOC)

Plus:

- Level 3/4 Computer Science Elective (18 UOC)
- Level 2 & 3 Science Elective (24 UOC)

Year 4

- SENG4921 Professional Issues and Ethics (6 UOC)

Plus:

- Level 3/4 Computer Science Elective (6 UOC)
- Computer Science Elective (18 UOC)
- Level 2 & 3 Science Elective (12 UOC)
- General Education (6 UOC)

External courses which may be included here and count towards the Computer Science and Science electives, include: MATH2301, MATH3411/3301, TELE3013, PHYS1601 & 2601 and any of ELEC1011, 2031, 2032, 2042, 3004, 3006, 3014, 3016, 3017, 3041, 4042, 4412, 4413, 4503, 4522 and 4532.

MAJORS

The flexibility of the Computer Science program electives allows double majors within the program.

In addition to the standard COMPA13983 Computer Science major, you can choose to specialise in one additional major:

COMPG13983 Computer Game Design & Construction

COMP113983 Artificial Intelligence

COMPH13983 Human Computer Interaction

COMPR13983 Robotics

COMPE13983 Electronic Commerce

COMP13983 Computer Networks

COMP13983 Database Systems

Handbook editor Note: Major Requirements outlined in program 3978 will flow through to all other programs with the same majors. Just create one plan page.

BSc Computer Science/Digital Media (COMPA13982)

Program Structure

Year 1

- COMP1917 Higher Computing 1 (6 UOC)
- COMP1927 Higher Data Str. & Algos (6 UOC)
- MATH1081 Discrete Mathematics (6 UOC)
- SOMA1600 Language of Digital Media (6 UOC)
- SOMA1604 Introduction to Digital Media (6 UOC)
- SOMA1608 Digital Composite (6 UOC)
- SOMA2602 Sound Media 1 (6 UOC)

And ONE of:

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

Year 2

- COMP2041 Software Construction (6 UOC)
- COMP2911 Engineering Design 2 (6 UOC)
- SAHT3614 Screen Culture (6 UOC)
- SOMA1603 Digital Video 1 (6 UOC)
- SOMA2607 Multimedia Authoring 1 (6 UOC)
- SOMA2609 3D Modelling & Animation 1 (6 UOC)

And ONE of:

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

Plus:

- Approved SMA or CSE elective (6 UOC)

Year 3

- COMP3711 Software Project Management (6 UOC)
- COMP3421 Computer Graphics (6 UOC)
- SAHT3613 Digital Theory & Aesthetics (6 UOC)

Plus:

- Level 3/4 Computer Science Electives (12 UOC)
- Approved SMA or CSE elective (12 UOC)
- Open Elective (6 UOC)

Year 4

- SENG4921 Professional Issues and Ethics (6UOC)
- SOMA3610 Digital Studio (6 UOC)
- SOMA3612 Professional Portfolio (6 UOC)
- SOMA3616 Professional Practice (6 UOC)

Plus:

- Level 3/4 Computer Science Electives (12 UOC)
- Approved SMA or CSE elective (6 UOC)
- Open Elective (6 UOC)

MAJORS

The flexibility of the Computer Science program electives allows double majors within the program.

In addition to the standard COMPA13982 Computer Science major, you can choose to specialise in one additional major:

COMPG13982 Computer Game Design & Construction

COMP113982 Artificial Intelligence

COMPH13982 Human Computer Interaction

COMPR13982 Robotics

COMPE13982 Electronic Commerce

COMP113982 Computer Networks

COMPD13982 Database Systems

Handbook editor note: Major requirements outlined in program 3978 will flow through to all other programs with the same majors. Just create one plan page.

BCom/BSc Computer Science (COMPA13529)
BE Chemical Eng/BSc Computer Science (COMPA13042)
BE Industrial Chem/BSc Computer Science (COMPA13102)
BE Civil/BSc Computer Science (COMPA13730)
BE Environ/BSc Computer Science (COMPA13735)
BE Surveying & SIS/BSc Computer Science (COMPA13746)
BE Mech & Manf/BSc Computer Science (COMPA13711)

Plan Structure

As part of the overall UoC required for the BSc, the following courses are required for a major in Computer Science.

Core Courses:

Students complete 42 units of credit (7 courses) of core computing courses:

- COMP1917 Higher Computing 1 (6 UOC)
- COMP1927 Higher Data Str. & Algos (6 UOC)
- COMP2041 Software Construction (6 UOC)
- COMP2121 Microprocessors & Interfacing (6 UOC)
- COMP2911 Engineering Design 2 (6 UOC)
- COMP3711 Software Project Management (6 UOC)
- SENG4921 Professional Issues and Ethics (6UOC)

Where professional issues and ethics is completed elsewhere as part of this combined program, students may replace SENG4921 with an additional 6uc computing electives level three or higher.

Elective Courses

Students complete 18 units of credit (3 courses) of computing electives level three or higher.

MAJORS

The flexibility of the Computer Science program electives allows double majors within the program. Some additional electives may need to be used in programs that require more than three courses for the second major.

In addition to the standard Computer Science major, you can choose to specialise in one additional major:

COMPG1 Computer Game Design & Construction
COMPI1 Artificial Intelligence
COMPH1 Human Computer Interaction
COMPR1 Robotics
COMPE1 Electronic Commerce
COMPN1 Computer Networks
COMPD1 Database Systems

Handbook editor Note: Major Requirements outlined in program 3978 will flow through to all other programs with the same majors. Just create one plan page.

BE Tele/BSc Computer Science (COMPA13641)

BE Elec/BSc Computer Science (COMPA13725)

BE PV and Solar/BSc Computer Science (COMPA13655)

Plan Structure

As part of the overall UoC required for the BSc, the following courses are required for a major in Computer Science.

Core Courses:

Students complete 36 units of credit (6 courses) of core computing courses:

- COMP1917 Higher Computing 1 (6 UOC)
- COMP1927 Higher Data Str. & Algos (6 UOC)
- COMP2041 Software Construction (6 UOC)
- COMP2911 Engineering Design 2 (6 UOC)
- COMP3711 Software Project Management (6 UOC)
- SENG4921 Professional Issues and Ethics (6UOC)

Where professional issues and ethics is completed elsewhere as part of this combined program, students may replace SENG4921 with an additional 6uc of computing electives level three or higher.

Elective Courses

Students complete 24 units of credit (4 courses) of computing electives level three or higher.

MAJORS

The flexibility of the Computer Science program electives allows double majors within the program.

In addition to the standard Computer Science major, you can choose to specialise in one additional major:

COMPG13983 Computer Game Design & Construction

COMP113983 Artificial Intelligence

COMPH13983 Human Computer Interaction

COMPR13983 Robotics

COMPE13983 Electronic Commerce

COMP113983 Computer Networks

COMPD13983 Database Systems

Handbook editor Note: Major Requirements outlined in program 3978 will flow through to all other programs with the same majors, just create one plan page.

2.3 Proposed Revision in Detail

The only changes being proposed are those that affect the BSc Computer Science component of each program. Double degree programs in Computer Science have been created over many years and program revisions to the primary 3978 program did not always flow through to double degrees.

This program revision seeks to ensure that all graduates from Computer Science complete a similar program or plan requirement, and all students complete the courses required for accreditation with appropriate bodies.

COMP3111 Software Engineering (6UOC) is no longer offered. This course will be replaced by COMP3711 Software Project Management.

Notes:

COMPK13978 had revised the program in 2009 to replace COMP3111 with COMP3141, this is now being corrected and brought in line with the primary program by replacing COMP3141 with COMP3711.

COMP2920 Professional Issues and Ethics (3UOC) is no longer offered. Students have been taking SENG4921 Professional Issues and Ethics so this revision seeks to formalise this arrangement. 3UOC of electives are removed from Stage 3 to accommodate the 6UOC replacement for COMP2920.

Notes:

COMPK13982 did not contain COMP2920 which seems to be an oversight. 6uc COMP electives have been replaced by SENG4921.

MATH1231/1142 (Higher) Mathematics 1B (6UOC) was unintentionally absent from the Computer Science/Digital Media program. MATH2400 and MATH2859, both 3UOC each were there instead. This anomaly has now been rectified.

Majors are available to students in the primary Computer Science program but when the proposal was originally approved for program 3978 it was approved without consideration for the various double degrees. Majors have now been added to all programs. To view major requirements please see:

<http://www.cse.unsw.edu.au/undergrad/programs/csspec.html#A13978>

2.4 Units of credit

No change.

2.5 Date of Last Program Revision

2009 (COMPK13978 & COMPAH3978)
2005 3978

2.6 Next Program Review Date

2012

2.7 Student Impact Statement/Transitional Arrangements

Changes will be applied to all currently enrolled students, with flexibility for students who cannot be accommodated to continue in the program as outlined prior to the change.

2.8 General Education program (for undergraduate programs only)

No impact on General Education.

2.9 Alternative Delivery of Programs

2.9.1 Alternative Delivery Arrangements

None

2.9.2 Multi-mode Delivery Guidelines

The following issues should be addressed in proposals for Multi-mode delivery:

- parity in admission requirements to ensure that the integrity of programs at UNSW was not compromised;
- administrative processes relating to enrolments and dealing with students overseas;
- content and standard of courses and assuring comparability with on-campus courses;
- by whom and how courses were to be delivered;
- assessment procedures; and
- availability of library resources.

Note: The business components of off-shore proposals are considered by the International Strategies Committee (ISC) chaired by the Deputy Vice-Chancellor (Research) whilst the Academic Board approves the academic aspects of proposals for offshore delivery of existing programs. The ISC considers (i) partnership arrangements; (ii) whether the impact on the faculty of staff going overseas has been considered; and (iii) whether appropriate steps have been taken to register the program in the country concerned.

The Postgraduate Coursework Committee has wished to ensure that the following issues have been addressed in proposals for offshore delivery: parity in admission requirements to ensure that the integrity of programs at UNSW is not compromised; administrative processes relating to enrolments and dealing with students overseas; content and standard of courses and assuring comparability with on-campus courses; by whom and how courses are to be delivered; assessment procedures and availability of library resources.

Proponents should contact the Office of the Deputy Vice-Chancellor (Research) regarding this committee.

2.9.3 University resources required by students

2.10 Information Technology Requirements for students (for all programs)

No change

3. CROSS REFERRAL

3.1 Academic Units with Potential Interest

No impact on other academic units

3.2 Material Overlap and Service Teaching

No overlap or provision of service teaching.

3.3 Academic Cross-referral

Note: *this section of the Proposal must be signed by any interested parties (the Dean and/or Presiding Member of the consulted Faculty/Faculties), stating:
OR
alternatively, attach copies of correspondence of consultation.*

I have examined the Program Proposal and have no concerns with the matter proceeding.

Further Comments:

Dean or Presiding Member of consulted Faculty/Faculties
/ /2005

3.4 Administrative Units or External Organisations with Interest

N/A

3.5 Administrative Cross-referral

I have examined the Program Proposal and have no administrative concerns with the matter proceeding.

Further Comments:

Registrar's Nominee

/ /2005

4. COURSE DETAILS

N/A

4.1 Summary of Handbook Course Descriptions

N/A

5. RESOURCE STATEMENT

5.1 Enrolment Planning

N/A

5.2 Details of Fees

No change.

5.3 Resource Impact

N/A

5.3.1 Teaching Format

No change

5.3.2 Staffing Requirements

No Change

5.3.3 Support Requirements

No Change

5.3.4 Accommodation

✓ No additional facilities required

OR

Space/facilities required but can be provided from own resources and/or existing allocation

OR

Space is required amounting to m² on:

- (i) temporary basis for years
- (ii) permanent basis

5.3.5 Materials Requirements

5.3.6 Equipment Requirements

- (i) Expenditure on new or replacement equipment
- (ii) Annual maintenance on new equipment.

5.3.7 Computing Requirements

5.3.8 Library Requirements

6. AUTHORISATION

6.1 University Librarian's Endorsement

Note: *this section of the Proposal must be signed by a Library representative, stating:*

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

Note: *this section of the Proposal must be signed by the Dean, stating:*

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

(Tick whichever is applicable)

- 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

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[DISABILITY GUIDELINES FOR ACADEMIC STAFF PREPARING COURSES](#)