PROPOSAL TO INTRODUCE A NEW COURSE
(formerly known as subject)

1. COURSE DETAILS

1.1 Course ID
COMP4xxx

1.2 Course name - Long
Analysis of Algorithms

1.3 Course name - Abbreviated
Analysis of Algorithms

1.4 Course Authority
Toby Walsh
ext/email: 56929 / tw@cse.unsw.edu.au

1.5 Organisational Unit responsible for course
School: Computer Science and Engineering
Faculty: Engineering

Academic Group Code (Faculty): ENG
Academic Organisation Code (Owner): COMPSC

1.6 Justification of Proposal
This proposed course is intended to provide students with skills necessary to study and analyse computational problems, including complexity and optimisation analysis. Emphasis will be on teaching problem solving skills as opposed to mathematical theory and students will be exposed to some computer tools like Maple and MATLAB to help them do such problem solving. The course will present material which is not covered in MATH1081, COMP3121/3821/9101 and COMP4121. The necessary background materials from these courses will be briefly covered before moving on to the course goals of teaching students how to solve such problems in practice.

1.7 Consultation Process
Consultation has been undertaken with members of the teaching Committee of the School of Computer Science and Engineering, representatives of the School of Mathematics, and students, industry representatives and other academics via the Computer Science Co-op Steering Committee.

1.8 Units of credit (UOC) Session/s offered Hours Per Week
6 51 5

1.9 Pre-requisites: COMP3121/3821, WAM of 65 or above
Co-requisites: NIL
Exclusions: MATH2140

1.10 Proposed Entry in the Faculty Handbook

1.11 Is this course replacing an existing course?

YES

NO  X

1.12 Undergraduate / Postgraduate / Other (delete what is not applicable)

1.13 Core / Elective (delete one)

1.14 Program stage
Taken in Stage III (first offered in S1 2006)

1.15 Program/s in which course is be available
BSc Computer Science (COMP3978)
BE Bioinformatics (BINF3647)
BE Computer Engineering (COMP3645)
BE Software Engineering (SENG3648)
Combined programs of which the above form a part

1.16 Proposed teaching methods and assessment practices
Teaching will include both lecture and tutorial / laboratory sessions. Assessment will include formal examination and assignments.

1.17 Assessment grades to be used
The full range of grades will be used for assessment.

1.18 Mode of delivery
Internal  X

External

Other (specify)

1.18.1 Multi-mode Delivery Guidelines
N/A

1.19 Information Technology Requirements for students
Existing hardware and software site licenses will be used.

1.20 Textbooks
No text book will be required, but recommended reading will include:


1.21 Industrial experience component
N/A

2. RESOURCE STATEMENT

2.1 Enrolments
Estimated or proposed enrolments for the next three years.

2006: 10
2007: 13
2008: 15

2.2 Resource Requirements

Staffing Requirements:

Hours per week

<table>
<thead>
<tr>
<th>Staff Type</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time Academic Staff</td>
<td>3</td>
</tr>
<tr>
<td>Part-time Teaching Staff</td>
<td>NIL</td>
</tr>
<tr>
<td>General Staff</td>
<td>NIL</td>
</tr>
</tbody>
</table>

Field Costs:
NIL

Studio/Laboratory Requirements:
NIL

Materials Requirements:
NIL

Equipment Costs:
Maple classroom (teaching) licence — $130 / user x 10 = $1300
(using the School of Mathematics licence and dependent on them being able to partition their licence server)

Matlab classroom licence — $1452 + $329 / year for maintenance = $1781

Computing Requirements:
NIL — to use existing computer laboratory equipment

Library Requirements:
See reading list (1.20 above)

Capital Funds Requirements:
NIL

2.3 Servicing Implications:
N/A
2.4 Teaching Arrangements:

YES X

NO

Guest speakers from National ICT Australia will present sessions on an as-required basis.

2.5 Alternative Delivery Arrangements:

N/A

2.6 Details of Tuition Fees:

Proposed fee: Standard for Faculty of Engineering

3. AUTHORISATION

3.1 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 course have been made by the Course Authority with the University Librarian.

Further Comments:

University Librarian
/ /2005

3.2 Head of School’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 the School can cover the demands that are inherent in it.

Further Comments:

Head of School
/ /2005
3.3 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:

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

3.3.2 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 certifies 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.

3.3.3 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

Please click on link for
DISABILITY GUIDELINES FOR ACADEMIC STAFF PREPARING COURSES