

PROPOSAL TO REVISE A COURSE

(formerly known as subject)

1. COURSE DETAILS

1.1 Course ID

BINF1001

1.2 Course name - Long

Bioinformatics 1

1.3 Course name - Abbreviated

Bioinformatics 1

1.4 Course Authority

Dr. Bruno A. Gaëta

ext/email

57213/bgaeta@unsw.edu.au

1.5 Organisational Unit responsible for course

School/Department:

School of Computer Science and Engineering

AOU Code:

1.6 Revision of Course Summary Checklist

Indicate the type of revision proposed by checking the appropriate box(es).

to change the course name or number:

CURRENT COURSE ID/NAME

NEW COURSE ID/NAME

to amend the Handbook description

to vary the pre-requisites or co-requisites

to vary the contact hours

to vary the unit of credit value

to offer the course by alternative means
eg. distance education.

Other (specify)

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1.7 Justification of Proposal

The current version of the course was designed exclusively for students in the BE (Bioinformatics) program assuming S1 entry, and its prerequisites made the whole program unsuitable for midyear entry. In addition there has been increasing interest from non-bioinformatics students to learn about bioinformatics. By removing the course prerequisites (and modifying the course contents accordingly) the BE (Bioinformatics) becomes available to midyear entry students and other students interested in the topic who want to take it as elective. This is especially relevant to science students with a biology/biochemistry/molecular biology/genetics major who want to incorporate some bioinformatics in their program, and computer science students interested in bioinformatics as an application area for their computing skills. A consequence of removing the prerequisites is that the course material needs to be covered more slowly, and some topics have to be removed. The handbook entry therefore needs to be slightly amended to reflect this change in material.

1.8 Consultation Process

Which other interested parties, including other academic units, students and visiting committees, have been consulted on this proposal? Provide further details under sections 2.3 and 2.4 and attach any copies of correspondence.

1.9 Units of credits **Session/s offered** **Hours Per Week**
Session 2 5 HpW 6UoC

1.10 Pre-requisites: none
Co-requisites: -
Exclusions:

1.11 Current Entry in the Faculty Handbook, with Proposed Revision Clearly Indicated or Proposed Entry in the Faculty Handbook (including course description)

The course surveys the major areas of bioinformatics at an introductory level, exploring the history of bioinformatics in relation to advances in computing hardware and software; the biological problems currently being addressed using bioinformatics; and future applications of bioinformatics. Major topics include genomics; genome sequencing projects; proteomics; structural genomics; phylogeny; ~~population biology; ecological modelling;~~ medical informatics; and commercial applications of bioinformatics. The general nature of the data, computational problems and the approaches employed will be discussed in each case. Role of bioinformatics in the biotechnology industry. Structure of biotechnology industry stressing commercial, regulatory, and intellectual property areas. Diversity of industry sector and commercial case studies including biopharmaceuticals and gene therapy, use of transgenic plants and animals. Lectures are supplemented by practical exposure to public and commercial bioinformatics web sites.-

1.12 Is this course replacing an existing course?
YES Give previous course ID and name

NO X(modification)

1.13 Undergraduate / ~~Postgraduate~~ / ~~Other~~ **(delete what is not applicable)**

This is an undergraduate course. Postgraduate students should enrol in BINF9010 instead.

1.14 Core / Elective **(delete one)**

1.15 Program stage
Indicate the program stage in which the course is usually taken.
2nd session of Year 1 for BE (Bioinformatics) students
anytime for other undergraduates.

1.16 Program/s in which course is be available
Provide course code and course name (address any servicing implications under sections 2.3 and 2.4).
All programs (core for programs 3647, 3755, 3756, 3757, 3715 with bioinformatics plan, elective for others)

1.17 Proposed teaching methods and assessment practices
examinable (formal)

1.18 Assessment grades to be used
full range of grades

1.19 Mode of delivery

Internal X

External

Other (specify)

1.20 Information Technology Requirements for students
Standard resources available in school

1.21 Textbooks

1.22 Industrial experience component
N/A

2. RESOURCE STATEMENT

2.1 Enrolments

Estimated or proposed enrolments for the next three years.

2006	15
2007	20
2008	25

2.2 Additional Resource Requirements Resulting from Revision

Staffing Requirements:

Hours per week

0 Full-time Academic Staff (NICTA conjoints)

0 Part-time Teaching Staff

0 General Staff

Field Costs: N/A

Studio/Laboratory Requirements: N/A

Materials Requirements: N/A

Equipment Costs: N/A

Computing Requirements: Standard for CSE courses, and already available

Library Requirements: Standard textbook requirements for a course of this size

Capital funds Requirements: N/A

2.3 Servicing Implications:

Course proposals which involve servicing arrangements with Schools/Departments across Faculty boundaries should be considered by the other relevant Faculties or Boards of Studies.

Will service teaching be provided or has been in the past and will it no longer be provided, by another department/school? NO.

2.4 Teaching Arrangements:

(i) Will other units contribute on a regular basis to the teaching of this course?

YES X

NO

(ii) If so, which units are involved and what proportion of the course will they teach?

The school of Biotechnology and Biomolecular Sciences (BABS) will continue teaching around 60% of this course. The head of teaching in BABS, Dr Mike Edwards, has been consulted regarding the changes, as were Profs Peter Little, Mark Wilkins and Dr Mark Tanaka who are contributing to the teaching of this course.

2.5 Alternative Delivery Arrangements:

N/A

2.6 Multi-mode Delivery Guidelines

N/A

2.7 Details of Tuition Fees:

Standard fee for Engineering courses of this type

3. AUTHORISATION

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

Further Comments:

University Librarian
/ /2004

3.2 Head of School's Approval

Note: *this section of the Proposal must be signed by the Head of School, 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 the School can cover the demands that are inherent in it.

Further Comments:

Head of School
/ /2004

3.3 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)

- 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.

3.2.2 **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 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:
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Dean
/ /2004