PROPOSAL TO INTRODUCE A NEW COURSE

C. COURSE DETAILS

(a) Course ID: COMP9244

(b) Course name – Long: Comparison of contemporary processor architectures from the software point of view

(c) Course name – Abbreviated: Software View of Processor Architectures

(d) Is this course replacing an existing course?:
No

(e) Organisational Unit responsible for the course

(i) AOU (School/Department) Code: E250

(ii) Name: School of Computer Science & Engineering

(iii) Course authority and contact phone number: A/Prof Gernot Heiser, x5156

(f) Undergraduate or graduate level: Graduate

(g) Core or elective: Elective

(h) Course stage: Upper

(i) Programs in which course will be available MSc, ME, PhD

(j) Sessions offered: S1

(k) (i) Units of credit: 6
  (ii) Postgraduate Assessable Hours: **??? ⇐ DUNNO**

(l) Assessment mode: other: seminar
Assessment grades to be used: SY/NS

(m) Rules:

(i) Pre-requisites:
  - COMP3211 or COMP9211 Computer Architecture
  - **COMP3231 or COMP9201 Operating Systems ⇐ DUNNO**

(ii) Co-requisites: None

(iii) Exclusions: None

(n) Mode of delivery

(i) Taught in an academic session at the UNSW campus

(o) Textbooks: None (research papers and architecture manuals)

(p) Indicate whether there is an industrial component to the course: No

(q) Indicate the session and year when course will be first offered: 2003

D. HANDBOOK ENTRY

Examination of contemporary computer architectures, comparing and contrasting their software-visible features (caches, memory management unit, pipelining and instruction-level parallelism, instruction set architecture, register files). Examination of the effect of these features on the design and implementation of operating systems, compilers, run-time systems, etc. Discussion of software techniques for dealing with these architectural features.

The course is aimed at providing research students in the fields of systems and compilers with the relevant advanced architecture background and an idea of where architectures are likely to head in the next 5-10 years.

E. RESOURCE STATEMENT

(a) Estimated of proposed enrolment for the next three three years:

	Enrolments
2003	10
2004	10
2005	10

(b) Resources required:

Equipment costs: N/A

Field costs: N/A

Capital funds required: N/A

Other funds required: N/A

Computing resources required: internet and text processing only

Library commitments: all materials available on-line either for free or via existing subscriptions

(c) Servicing implications: N/A

(d) Cross referral: N/A

(e) Teaching arrangements: N/A

(f) Distance learning: N/A

(g) Details of tuition fees: part of coursework requirements of research degrees

F. AUTHORISATIONS

Librarian's Authorisation

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

Indicate any further comments Further comments:

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Signature of University Librarian

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Dean's Authorisation

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

(Please delete whichever is <u>not</u> applicable)

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

(b) *a fee will/will not be charged for this course. If a fee is to be charged the Dean should 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 required before the new course can be introduced.

(c) *the proposal does/does not conform to the University's commitment to E.O. E.*

Source of additional resources and/or further comment must also be provided and verified by the Dean.

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Signature of Dean

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