

# PROPOSAL TO INTRODUCE A NEW COURSE

(formerly known as subject)

## 1. COURSE DETAILS

### 1.1 Course ID

### 1.2 Course name - Long

Architectures of Software Systems

### 1.3 Course name - Abbreviated

Software Architecture

### 1.4 Course Authority

Piyush Maheshwari

### ext/email

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### 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

Software design is not a new activity, but lately software architecture is emerging as a new discipline. Software architects today face new challenges as they are asked to produce increasingly complex software using the latest technologies and tools, which are changing faster than ever. Moreover, they are asked to produce better quality software with a shorter time-to-market. With such conflicting situations and pressures, a systematic study of software architectures has become very important for the software designers.

The primary purpose of this course is to teach students how to approach software systems from an architectural point of view. By the end of the course, students should be able to recognise major architectural styles in existing software systems, describe an architecture accurately, compare between different architectural alternatives for a given problem, and understand domain-specific architecture for a particular family of applications.

### 1.7 Consultation Process

1.8	Units of credit (UOC)	Session/s offered	Hours Per Week
	6	S2	3

1.9 **Pre-requisites:** COMP3111, COMP3131 or COMP3141

**Co-requisites:** None

**Exclusions:** None

### 1.10 Proposed Entry in the Faculty Handbook

Principal architectural issues associated with the design and construction of large scale software systems. Study and evaluation of several well-known and frequently used architectural styles, patterns and frameworks.



## 2.2 Resource Requirements

### Staffing Requirements:

Hours per week

4 hours Full-time Academic Staff

Part-time Teaching Staff

General Staff

### Field Costs:

### Studio/Laboratory Requirements:

### Materials Requirements:

### Equipment Costs:

**Computing Requirements:** Use of existing facilities in the School

**Library Requirements:** Standard textbooks, conference proceedings and journals in Software Engineering

### Capital Funds Requirements:

## 2.3 Servicing Implications:

N/A

## 2.4 Teaching Arrangements:

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

**YES**

**NO**

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

## 2.5 Alternative Delivery Arrangements:

N/A

## 2.6 Details of Tuition Fees:

Proposed fee:

Standard for 6 UOC Engineering courses

\$ for non-award enrolment (local)

\$ for non-award enrolment (international)

\$ for course which forms part of full fee-paying program (for local students)

\$ for course which forms part of full fee-paying program (for international students)

### 3. AUTHORISATION

#### 3.1 Principal 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 Principal Librarian.

Further Comments:

Principal Librarian

/ /2002

#### 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

/ /2002

#### 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.

3.3.2 **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:
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Dean  
/ /2002