

Working Group on Outcome-Based Education

Ref. No.	
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# Projects on Promoting Outcome-Based Approaches to Student Learning 2007-08 Application for OBA Funding

### **PART I: General Information**

### 1. Title

Outcome-based Final Year Project in Computing.

## 2. Name(s) of Applicant(s)

Project Leader

Name	Dept	Post	Groupwise	Ext.
Dr. Hong Va Leong	COMP	Associate Professor	cshleong@inet.polyu.edu.hk	7243
Dr. Stephen Chan	COMP	Associate Professor	csschan@inet.polyu.edu.hk	7259

### Team Member(s)

Dept	Post	Groupwise	Ext.
COMP	Associate Professor	cskchung@inet.polyu.edu.hk	7289
COMP	Associate Professor	cstyng@inet.polyu.edu.hk	7242
COMP	Associate Professor	cshchan@inet.polyu.edu.hk	7269
COMP	Assistant Professor	csgngai@inet.polyu.edu.hk	7279
MM	Associate Professor	mswtngai@inet.polyu.edu.hk	7296
LSGI	Professor and Associate Head	lsemok@inet.polyu.edu.hk	5953
	COMP COMP COMP MM	COMP Associate Professor COMP Associate Professor COMP Associate Professor COMP Assistant Professor MM Associate Professor LSGI Professor and	COMP Associate Professor cskchung@inet.polyu.edu.hk  COMP Associate Professor cstyng@inet.polyu.edu.hk  COMP Associate Professor cshchan@inet.polyu.edu.hk  COMP Assistant Professor csgngai@inet.polyu.edu.hk  MM Associate Professor mswtngai@inet.polyu.edu.hk  LSGI Professor and lsemok@inet.polyu.edu.hk

### 3. Total funding requested

4.	Expected duration of project:	24	months
	Proposed commencement date:	1 September, 2008	
	Expected completion date:	31 August, 2010	W. W

#### PART II: DETAILS OF PROPOSAL

#### 1. Project objectives and significance

(What are your objectives in initiating this project? How does it align with institutional goals and targets in implementing outcome-based approaches to student learning?)

The Final Year Project is a compulsory and critical subject in all the three award programs in the Scheme of Computing. It integrates the material taught in many of the subjects, and provides the students with a valuable opportunity to carry out a sizeable project independently, under the supervision of an academic advisor.

In our department's current OBA project, we are reviewing the program level learning outcomes, particularly the more intangible, all-roundedness outcomes such as global outlook, ethnical issues, creativity, and critical thinking. We have identified some areas that need further work, mainly on the need to strengthen the teaching, practice, and assessment of some of these intangibles. We have come to believe that many of these intangible outcomes can best be taught, practiced and assessed through student projects, particularly the Final Year Project.

We hereby propose to build on what we have developed and will develop in our current project. In this new proposal, we will focus on reviewing and revamping the operation of the Final Year Project in light of the Outcome-based Approach.

It is expected that the revamped FYP will contribute significantly the realization of truly outcomebased education in the Scheme of Computing. Particularly in the achievement of the more intangible student learning outcomes.

#### 2. Target users

(Who are the intended users of the 'deliverables' of the project – faculties / departments management or programme/subject teams or students?)

Program leaders, Final Year Project coordinators, project supervisors, and students.

If the target users are students, complete the table below:

		per year
9	FT	119
9	PT	160
	9	9 PT

Please insert rows in the table if more space is required for additional information.

#### 3. Outcomes and deliverables

#### (a) Major outcomes and deliverables

(What will be the major outcomes and deliverables of the project?)

	Major outcomes and deliverables with descriptions
(a)	A revamped syllabus for the COMP451 Final Year Project.

(b)	A set of teaching materials and methodology for achieving the specified learning outcomes.
(c)	A set of metrics for measuring the intended learning outcomes.

Please insert rows in the table if more space is required for additional information.

#### (b) Plan for developing and piloting / implementing the deliverables

(Detail the plan and procedures that you will adopt to develop and pilot/implement the outcomes and deliverables. Also specify the dates of the pilot / implementation period)

There will be three main tasks: review, revamp, and execution.

In the first task, we will review the current operation of the Final Year Project, in reference to the Student Learning Outcomes as developed in the re-structuring exercise, and in light of what we learned from the current OBA project. We will survey relevant project learning practice elsewhere in the university as well as in other universities that practice outcome-based education. We believe we will have to pay extra attention to some specific areas such as: background study, project management, report writing, and presentation.

In the second task, we will focus on revamping the operation of FYP to provide appropriate training to the students in areas identified in the first task. Some efforts will have to be spent in developing teaching materials, phased and just-in-time delivery of such materials - just when the student need them.

In the third phase, from September to June 2009, we will be operating the revamped FYP for the first time, and monitoring its execution. A review of the operations will be carried out in summer 2009, with a possible revision of the syllabus in preparation for 2009-10. A second run of fine tuning may be necessary.

Planned pilot / implemen	tation period of the deliverables
Start Date (dd/mm/yyyy):	01/06/2008
End Date (dd/mm/yyyy):	31/05/2010

#### 4. Dissemination and sharing plan

(How are you going to disseminate and share the outcomes and deliverables of your project?)

Academic staff in the department will participate in development and execution of the project, hence will be kept informed of the outcomes and deliverables.

We also plan to report on the project in seminar(s) on campus, perhaps organized through the EDC, and in international academic conferences on education.

#### 5. Evaluation plan

(How do you plan to evaluate the effectiveness of the project, particularly its impact on the implementation of outcome-based approaches to student learning in the PolyU?)

A set of metrics to measure the relevant program-level learning outcomes through the Final Year Project will be developed and applied in the 2008-09 and/or the 2009-2010 academic year. Application of the metrics and the results generated will provide an objective evaluation of the effectiveness of the project. It will also provide valuable data on the overall implementation of the outcome-based approaches to student learning in the Scheme of Computing. Hopefully our experiences can also provide useful references with similar needs or practices.

#### 6. Impact

(How will the project contribute to the success of the implementation of outcome-based approaches to student learning in the PolyU/ department/ programme/ subject?)

One of the major issues identified in the implementation of Outcome-based Education so far, at least as far as the Department of Computing is concerned, is the teaching, practice, and assessment of general, intangible learning outcomes such as critical thinking, creativity, information integration, and project management. This project is expected to deliver concrete means to solving this problem.

#### 7. Target date(s) for submission of progress and completion reports

		Planned submission date (mm/yyyy)
1.	Progress report (for projects whose duration lasts more than 1 year; to be submitted mid-way through the proposed project period)	31 December, 2009
2.	Completion report (to be submitted within 3 months after the project completion date)	31 December, 2010

# PART III: BUDGET OF PROPOSAL

#### \*Important Notes

- 1. Funding requests for equipment and/ or software will be considered only if:
  - a. the equipment / software is essential to the successful implementation of the project, AND
  - b. it is not available in the department concerned. The Project Leader has the responsibility to check this out.
- 2. The purchasing policies and procedures of FO must be followed for the procurement of approved items.
- 3. Funding request for conference attendance will not be considered.

Project	Leader		
Name:	DR. LEONG HONGVA	Signature:	
	(in block letters)		
Dept:	COMPUTING	Date:	31 JANUARY 2008

#### PART IV: DEPARTMENTAL ENDORSEMENT

## **Endorsement by Chair of FLTC/ DLTC:**

Comments on the proposal:

This project is an important follow-up of our current OBA project which focuses on the specification and assessment of program level learning outcomes. This project will enable the department to revise the Final Year Project to ensure that some of the more intangible learning outcomes are properly taught, practices and assessed.

Name: DR. STEPHEN CHAN Signature: Date: 31 JAN 2008

(in block letters)

# **Endorsement by Dean/ HoD:**

Comments on the proposal:

This proposal is very appropriate for the Final Year Project component of the BA programme in Computing and its associate derivatives. The project is timely, well-tangetted and comprehensive since it affects all the graduating students in computing.

By endorsing this proposal, I agree that:

- 1. The proposal suitably addresses the School/Department's needs in promoting and implementing outcome-based approaches to student learning and will be considered as part of the School's/Department's Business Plan.
- 2. The School/Department will receive a funding as calculated for item (e) in the Budget section which I will use for providing the time release recommended by the project proposers, based on the Total Workload Model, to support them to work effectively on the project.

Name: PROF. GEORGE BACIU Signature: Date: 31 JAN 2008

(Acting Head)

Please return this form to Miss Miranda Fung, Secretary of Working Group on Outcome-based Education, c/o Educational Development Centre

by 31January 2008