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Curriculum Management and Planning for
Computer and Information Technology (S4-5)
with Different Elective Modules in Schools

在電腦與資訊科技課程(中四至中五)中管理及規畫
多個不同的選修單元

Program Rundown

1400 – 1420 Introduction

1420 – 1500 Presentation 1 -- Mr. YAU Siu-hung
Vice-principal
Yan Chai Hospital Wong Wha San Secondary
School

1500 – 1520 Break

1520 – 1550 Presentation 2 -- Mr. WONG Wing-hong Robert
Panel Head
La Salle College

1550 – 1700 Summary
Q & A

Objectives

To enhance computer teachers' knowledge on curriculum management and planning

1. The rationale behind offering different elective modules in Computer and Information Technology (S4-5).
2. Curriculum planning and implementation details, in terms of resources management and catering for learner diversity in offering different elective modules in schools

Computer and Information Technology

The Elective Modules are for students who wish to excel in a specialised area of their own choice.

- A. Algorithm and Programming
- B. Organisation of Computer
- C. Data Communications and Networking
- D. Multimedia Production and Web Authoring

The number of elective modules provided by each school is to be determined by the school concerned, taking into consideration students' interests, teachers' expertise and the resources available (p. 6).

Technology Education Key Learning Area

Information and Communication Technology Curriculum and Assessment Guide (Secondary 4 - 6)

Jointly prepared by the Curriculum Development Council and
the Hong Kong Examinations and Assessment Authority

Recommended for use in schools by the Education and Manpower Bureau
HKSARG
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3.3 Curriculum Planning Strategies

3.3.1 For Students of Different Abilities and Inclinations

The NSS ICT curriculum provides four options in the elective part:

- Databases
- Data Communications and Networking
- Multimedia Production and Web Site Development
- Software Development

The design of the Elective Part aims to provide students with a range of choices. Students are encouraged to choose the option that matches their interests, their intended post-secondary studies or career aspirations (p. 77).

Current Situation

CIT 2007 (No. of schools)

No. of Elective Modules Offered	No. of Schools
1	307
2	117
3	12
4	2
Total	438

CIT 2007 (No. of schools)

Elective Modules Offered to Students				Sub-Total	Total
A				47	307
	B			13	
		C		5	
			D	242	
A	B			2	107
A		C		2	
A			D	87	
	B		D	16	
		C	D	10	
A	B		D	7	12
A		C	D	4	
	B	C	D	1	
A	B	C	D	2	2
					438

CIT 2007 (No. of students)

Module	2007	2006
A	3,724	4,170
B	829	791
C	486	569
D	13,142	13,352
Total	18,181	18,882

PDP

Program	Max. Capacity	Applied
Networking	180	390
PHP & MySQL	24	184
Networking (re-run)	260	400
Retooling Networking	80	160
Databases (Oracle)	200	300
Networking (Cisco)	150	237

Recognition

Oracle Certified Associate (OCA)

Cisco Certified Network Associate (CCNA)

Feedbacks from Teachers

Does your school plan to offer Data Communication and Networking as the Elective Option in the NSS ICT?

Planning -- 未決定·擔心太少學校選擇此選項。(如現在 CIT 的 Module C)
一間學校不能開 2 組 (學生人數及學校課程設計 (新高中) 規範)

Resources -- 正在考慮中，要視乎人手及器材安排
成本會否很貴？會否有額外資源 (\$) 買設備？
沒有足夠的教學硬件 / 硬件支援不足 / 缺乏硬件資源 / 設備不足 /
Lack of hardware / 學生能力及資源問題

教材只有英文版本，學校缺乏器材 (硬件)

不夠人手 / 老師仍未受訓 / Worrying that we are not ready for it

Preference -- Difficult for students (especially girls) / 學生興趣不大，而實習機會不多
/ 學生程度 / 學生能力及資源問題 / 學生取向

No interest

Guiding Questions

1. What is the rationale of providing different elective modules in CIT?
2. How to allocate students to different elective modules / classes?
3. What are students' preferences?
4. Is there any work done for interfacing with junior computer literacy that affect students' preference?
5. How to arrange the timetable?
6. How to manage human resources (i.e. teachers' expertise)?
7. Does it need any extra resources / management?
8. How to address the issue of learner diversity?
9. What are the difficulties encountered?
10. What is the future planning on this issue for the NSS ICT?

Presentations

Presentation 1 – Mr. YAU Siu-hung
Vice-Principal
Yan Chai Hospital Wong Wha
San Secondary School

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Panel Head
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Break

Presentations

Presentation 2 -- Mr. WONG Wing-hong Robert
Panel Head
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Summary

Curriculum Planning – General Principles

Curriculum planning starts at the junior secondary level

Learning is made more meaningful by introducing authentic tasks and scenarios

Topics are not to be taught in isolation

Learning is not confined to time-tabled lessons

Teachers are encouraged to work together as a team

Teachers are encouraged to make flexible use of class time

Teachers are encouraged to make use of both formative assessment and summative assessment

(p. 69 - 70)

Progression

To help students achieve the curriculum aims and objectives, schools should feel free to vary the organization and teaching sequence of learning elements.

In practice, most schools will teach the core modules prior to the options.

However, some schools may start teaching the options immediately after the related core module is covered.

Examples: Cases 1, 2 and 3 in the C & A Guide (p. 71 – 76)
Different teaching sequences in the L & T resource package for the option Multimedia Production and Web Site Development

Curriculum Planning Strategies

3.3.1 For Students of Different Abilities and Inclinations

Students have a variety of learning style:

- Learning by reading
- Watching others perform
- Learning by doing

Curriculum Planning Strategies

Multimedia Production and Web Site Development has a heavier emphasis on applied learning and is suited to students who learn better in a practical way.

Students may find **Databases** interesting as they can learn how to apply database theories in daily-life situations.

Students who are problem-solvers and are keen on carrying out projects using computers may consider selecting **Software Development** which focuses on solving problems and developing solutions.

Students may choose **Data Communication and Networking** in order to equip their networking knowledge to meet the future demands of the Internet-based business environment. (p. 77)

Curriculum Planning Strategies

3.3.2 Making Student Learning more Meaningful

- Designing Authentic Experiences
- Engaging in Life-wide Learning

Curriculum Management

3.4.1 Areas of Work

Understand the Curriculum and Learning Context

- Senior Secondary ICT Curriculum and Assessment Guide
- Vision and mission, strengths and policies of your school
- Students' abilities and interests
- Community culture and the changing needs of society

Engaging in Life-wide Learning

- Design and implement schemes of work to help students achieve the curriculum aims and learning targets
- Design modes of assessment and tasks to promote assessment for learning

Curriculum Management

3.4.1 Areas of Work

Develop Resources

- Develop, collect and organize L & T resources and allow students to access them whenever needed (use of an e-learning platform)
- Make effective use of school and community resources

Build Capacity

- Keep abreast of the latest curriculum development, teaching strategies, knowledge knowledge and advances in technology
- Build face-to-face / electronic networks with other schools
- Peer lesson observation
- Share the best practices in delivering the ICT curriculum (p. 79-80)

Curriculum Management

3.4.2 Roles of Different School Personnel

- ICT Teachers
- TE KLA Co-ordinator / ICT Panel Chairperson
- School Head

Curriculum Management

3.4.2 Roles of Different School Personnel

ICT Teachers

- Acquaint themselves fully with the structure, organization and learning targets of the curriculum
- Help students to identify their specific area(s) of interest in ICT
- Explain clearly to students the overall aims, learning targets, and expectations of the school-based curriculum
- Foster an active learning environment
- Initiate the sharing of teaching ideas, knowledge and experiences to foster peer collaboration, support and professional exchange
- Keep abreast of the latest development of ICT curricula and innovations in ICT (p. 80)

Curriculum Management

3.4.2 Roles of Different School Personnel

TE KLA Co-ordinator / ICT Panel Chairperson

- Set a clear direction and plan for its own school-based curriculum
- Decide on which modules to offer in the Elective Part
- Collect and analyze evidence of students' learning
- Manage and use the L & T resources systematically and effectively
- Hold regular meetings to discuss matters such as schemes of work and choice of textbooks
- Promote professional exchange on subject knowledge, and L & T strategies
- Encourage panel members to participate in professional development courses, workshops, seminars, etc.
- Make the best use of the resources available in school (p. 81)

Issues to be Considered

- Interface with CL
- Prior knowledge of students
- Diversity of student preference
- Computer facilities
- Teacher expertise
- Time-table arrangement

Coming PDPs

Feb.	Copyright
Feb.	Lab. Visits
May	Using Software to enhance L & T
June	Public Assessment: Standards and Reporting of Results
June	Understanding and Interpreting the NSS curriculum
July	Mobile Programming (Basic Level)
2008/2009	Assessing Student Learning: Internal Assessment Practices
2008/2009	Mobile Programming (Upper Level)
	Cisco, Oracle

Question & Answer

Please help by filling in the evaluation form