

For discussion on 3 June 2005

**Legislative Council Panel on Education**  
**Measures to Support Development of**  
**the New Academic Structure of**  
**Senior Secondary Education and Higher Education**

**Purpose**

This paper seeks Members' views on our proposed measures that aim at supporting the development of the New Academic Structure of Senior Secondary Education and Higher Education ("3+3+4 academic structure").

**Background**

2. The Chief Executive set out the direction to develop a new senior secondary and higher education structure that will effectively prepare our next generation to cope with the demands of a knowledge-based society, and the commitment to actively take it forward in his 2004 and 2005 Policy Address respectively.

3. The Administration's three-month consultation exercise to seek community feedback on the design blueprint, the timing for implementation and financial arrangement for the 3+3+4 academic structure ended on 19 January 2005. The Administration published on 18 May 2005 the report titled "The New Academic Structure for Senior Secondary Education and Higher Education – Action Plan for Investing in the Future of Hong Kong" ("Report") that sets out the way forward.

4. There was strong support in the community, across all key stakeholder groups for the direction of the proposed academic structure. Widespread consensus was found in the curriculum and assessment reform objectives and roadmap, despite concerns over the pace of change and supporting conditions for some of the reform elements.

5. There were consistent demands from educators for additional resources to support teacher training, and to enhance the capacity of teachers to cope with the changes. In addition, resources will be required for a number of initiatives including the development of curriculum and teaching resources, pilot of the diversified learning and accreditation of career-oriented studies ("COS"). The Report sets out critical milestones in preparation for implementation in 2009. These resources are required in a timely manner to ensure we are fully prepared for the new system.

6. Given the complexity of the 3+3+4 academic structure, it is necessary to provide sufficient non-recurrent resources to assist secondary schools and University Grants Committee (UGC)-funded institutions to migrate to the 3+3+4 academic structure. This will facilitate early planning and preparation, and most of all, assure schools and teachers, as well as the UGC-funded institutions and their teaching staff of the Government's commitment to implementing the new academic structure and readiness to support the institutions, schools and teachers to ensure smooth implementation of the new academic structure.

### **Proposal**

7. We set out below the development measures to support the UGC-funded institutions and secondary schools in the run up to the 3+3+4 academic structure. These development and support measures involves a non-recurrent expenditure of about \$2,450 million over the period from 2005-06 to 2011-12 financial year:

#### ***The UGC-funded Institutions***

(a) Provision of funding to the UGC-funded institutions for the development of the four-year undergraduate curriculum and the transitional costs for migration of the 3+3+4 academic structure

- To review and redesign the curricula for undergraduate programmes taking into account -
  - the New Senior Secondary (NSS) curriculum
  - changes to the admission criteria of the UGC-funded institutions
  - the need to broaden the exposure of undergraduates under the future 4-year undergraduate programme
  - the need to accommodate students who are studying 3-year and 4-year undergraduate programmes concurrently during the transitional years
  - the need to facilitate credit recognition and transfer between institutions, articulation between programmes, and the admission and exit of students at different levels; and
- To engage additional academic, administrative and professional staff ahead of the admission of the first cohort of NSS graduates to prepare for changes in areas including the curriculum and student admission procedures.

## *The School Sector*

### (b) Development of the NSS curriculum

- To research, develop and disseminate the NSS curriculum, based on the feedback from the last consultation on the curriculum framework and the forthcoming consultation on the curriculum details and assessment framework which will address the views expressed on individual subjects and other curriculum development, including those for special education.

### (c) Development, pilot and accreditation of diversified learning including COS

- To develop and accredit COS which will be offered under the NSS; and
- To try out with schools and other service providers various modes of offering diversified learning opportunities including COS that can maximise student choices.

### (d) Core training for school principals and teachers

- To provide a minimum of 30 hours of professional development for teachers who will continue to teach their present subjects, and a minimum of 100 hours for teachers of the new subject of Liberal Studies (of which 35 hours will be compulsory and the remainder based on need);
- To provide professional training for teachers on the NSS assessment, including subject-specific training on the expected standards and any school-based assessment (“SBA”) in their respective subjects and training that will address the provision of other learning experiences; and
- To provide training for school principals and senior staff of secondary schools involved in planning and leading the migration to the NSS academic structure.

### (e) Teacher Professional Preparation Grant

The Teacher Professional Preparation Grant, including provision equivalent to about providing in average 1.0 additional Graduate Master per annum per secondary school for four years, is to be disbursed over the preparatory and transition period for the new senior secondary starting from the 2005/06 school year –

- To free up serving teachers for professional development activities to better prepare them for the change and for senior teachers to assist the school principal in better co-coordinating and steering the transition to the NSS curriculum, for example, by providing relief support;

And a further amount of \$120 million is to be disbursed to schools -

- In the preparatory years leading to the NSS education, to assist schools in engaging services that can enhance the professional capacity of teachers and the capacity of schools to meet specific needs of different schools.

(f) NSS Curriculum Migration Grant

- To procure necessary learning and teaching materials, furniture and equipment, and other necessary items for migration to the NSS curriculum and academic structure; and
- To cover start-up expenses, for example, minor adjustment or expansion of school facilities for teaching the NSS curriculum due to changes in the schools' specialty/curriculum focus, and where applicable an overall increase in student number.

(g) Transitional arrangement for public examinations and assessment

- To conduct a mock run of the new Hong Kong Diploma of Secondary Education (HKDSE) examination, which will replace the existing Hong Kong Certificate of Education Examination (HKCEE) and Hong Kong Advanced Level Examination (HKALE), early in the first year of the actual administration so as to assure validity and reliability.

**Justification**

### ***The New Undergraduate Programme***

8. The 3+3+4 academic structure entails an extra year of university education. The 4-year undergraduate programme should be coherent, and the additional year should not be a simple add-on to the current 3-year programme. The Administration expects the UGC-funded institutions to take an integrated approach to redesign their 4-year programmes, taking into account the changes to the NSS education and the opportunity for a broader education conducive to all round development of the students. UGC together with its funded institutions would need to start working on the curriculum changes and we need to provide funding to enable them to embark on these tasks as well as to cater for certain transitional costs to be incurred in, for example, engaging additional academic, administrative and professional staff ahead of the admission of the first cohort of NSS graduates to prepare for the changes.

### ***The NSS curriculum***

9. In the 3+3+4 academic structure, senior secondary students will take the four core subjects of Chinese Language, English Language, Mathematics and Liberal Studies, and two to three elective subjects and/or COS, complemented by formal exposure to other learning experiences.

10. Based on the last consultation on the overall curriculum framework and the forthcoming consultation on the curriculum details and assessment framework of individual subjects, an immense amount of development work is required to substantiate the NSS curriculum, enrich the curriculum content, test out the curriculum in schools, and carry out the necessary research and evaluation.

11. The NSS curriculum will have to be developed hand in hand with the respective assessment and examination mechanism to ensure close synergy between the two. The Curriculum Development Institute of the Education and Manpower Bureau will work with Hong Kong Examinations and Assessment Authority (HKEAA) to prepare the curriculum cum assessment materials, including standards and exemplars that can illustrate the intrinsic relationship between curriculum and assessment, as well as to provide clear guidance for reference of teachers and students in respect of each of the subjects.

12. Details of the NSS curriculum and assessment will have to be available at least two years before the NSS structure is implemented, so as to

allow sufficient time for teachers to get prepared, as well as to develop the learning and teaching materials, and for schools to plan and deploy teachers to teach the respective subjects.

### ***Diversified learning opportunities for students***

13. The NSS curriculum will also provide sufficient choice to cater for the diverse learning needs of students including the gifted students and those with special education needs (SEN). Students whose aptitude and interest is in subjects with an applied emphasis may choose COS alongside other elective subjects. The inclusion of COS in the NSS curriculum has enjoyed widespread support. Concerns centre on the status and recognition for these subjects, and incentive and capacity of schools to provide students with such learning opportunities.

14. Funding is required for the development and accreditation of COS courses. We shall build on the experiences of the career-oriented curriculum (COC) now being piloted in secondary schools, and will develop further the content and variety of such courses, quality assure and accredit the courses so as to gain community recognition. On-going review of the nature and selection of courses is required to ensure relevance to prevailing community needs.

15. Unlike conventional subjects, the diversified learning including COS may be provided in various modes, including schools procuring places from other institutes like the Vocational Training Council, employing or re-tooling teachers to teach in-situ in schools and/or joining hands with partner/neighbouring schools to complement each other in providing diversified learning opportunities to each other's students. It is important to try out their practicality before the NSS education is fully brought in place.

### ***Teacher capacity and development, and smooth migration of the NSS curriculum***

16. The community feedback on the 3+3+4 academic structure has highlighted that the readiness, competency and confidence of teachers in taking on the changes is one of the keys to the success of implementing the 3+3+4 academic structure. Teachers are concerned, on one hand, whether the professional training will be adequate and, on the other hand, whether they can cope with attending the professional development on top of their teaching

workload. The capacity of the schools also needs to be enhanced to cope with change and sustainable development.

17. We will provide training for school principals and staff involved in planning and leading the migration to the NSS academic structure. We will also strengthen the core training for school principals, subject panels and teachers on a subject-specific basis to equip them with the foundation knowledge of the NSS curriculum and assessment system, in particular the expected standards and SBA. In this context, the assessment training including training related to SBA will be delivered on a subject-specific basis, in addition to that covered in the \$136.7 million grant to HKEAA for its assessment development and research activities approved by the Finance Committee in February 2004. The grant provided to HKEAA earlier covers development and research of assessment approaches including standard setting and exemplars, SBA and assessment training in a wider perspective including assessment concepts and skills for teachers, using assessment for learning and so on.

18. The Teacher Professional Preparation Grant will help create relief for serving teachers who have to attend the essential professional training and make space for senior teachers in secondary schools to plan and coordinate the migration to the NSS curriculum. Schools may also have the flexibility to procure necessary support services according to individual needs.

19. Teachers will face many curriculum and assessment changes in the run up to NSS including the early implementation of the standard-referenced English and Chinese languages examinations that also have SBA components in 2007. Some schools and teachers are more progressive and better prepared for the reform. Others may need more help. The Teacher Professional Preparation Grant will also provide support for schools to engage services that can enhance the professional capacity of teachers and the capacity of schools to meet specific needs. The actual needs of individual schools will be clearer when schools have worked out their own staff development plan, to tie in with the curriculum and assessment plans.

20. To facilitate the smooth migration of the NSS curriculum, the supporting materials and necessary additional hardware are also required. We therefore propose to provide NSS Curriculum Migration Grant for secondary schools to procure necessary learning and teaching materials; to meet the

start-up costs, including minor alteration works, furniture and equipment; and other necessary items for migration to the NSS curriculum and academic structure.

### ***The Hong Kong Diploma of Secondary Education (HKDSE)***

21. The HKDSE, which will replace the existing HKCEE and HKALE examinations, will be standard-referenced and all subjects over time contain a SBA component. The new diploma will be articulated and benchmarked internationally.

22. To familiarize the first batch of candidates taking the HKDSE examination, as well as to ensure validity and reliability of the examination and to assist standard setting and international recognition, HKEAA has to conduct a mock run of the examination early in the first year of the actual administration. Funding is required for the mock examination, which would not be covered by any revenue of examination fees. The examination needs to be planned and developed well in advance and alongside the ongoing HKCEE and HKALE.

### ***Timetable of implementation***

23. The preparation work for the 3+3+4 academic structure should start as early as possible so that schools and teachers, as well as the UGC-funded institutions and their teaching staff, and other stakeholders will be more assured that the changes will be well supported. Considering the feedback from the consultation which has strongly supported an adequate preparatory period and 2009 as the first year for the NSS structure, we consider that it is timely to create a non-recurrent commitment now for meeting the aforementioned funding requirements to assist schools and UGC-funded institutions to migrate to the 3+3+4 academic structure.

### **Financial Implications**

24. In the 3+3+4 consultation document, it was then estimated that the non-recurrent expenditure for the development of the NSS curriculum and a four-year undergraduate curriculum, professional development of teachers and operation of additional classes during the transition years would be about \$3,300 million.



25. In response to the concerns raised by the community during the last consultation exercise, we now estimate that the non-recurrent expenditure will increase to about \$4,400 million. The increase is mainly required for coping with the increase in demands for curriculum development and teacher training; as well as for providing schools with funding support to enable them to plan at school level, have access to professional development programmes and prepare for migration to the 3+3+4 academic structure. Of the \$4,400 million, about \$2,450 million are for funding the development support measures and details are set out in paragraph 7 above. The remainder are for operating additional classes during the transition years and for other purposes, which would be provided nearer the time of implementation. We therefore propose to create a non-recurrent commitment of about \$2,450 million to provide funding to facilitate the UGC-funded institutions and secondary schools to gear up the preparation.

26. A breakdown of the proposed non-recurrent commitment is set out below. For a massive reform exercise at this scale and that spreads over a long implementation period, contingent needs and review and reshuffling of earmarked resources to cater for changing demands may be required. The breakdown below is based on our best estimates at this stage -

		Estimated costs of the initiatives (\$ million)
(a)	Curriculum development and other transitional costs for UGC-funded institutions	548.5
(b)	NSS curriculum development costs	207.0
(c)	Development & accreditation cost for career-oriented studies; and the pilot of diversified learning	115.6
(d)	Core training for school principals and teachers	224.0
(e)	Teacher Professional Preparation Grant	906.0
(f)	NSS Curriculum Migration Grant	138.6
(g)	Transitional cost for public examinations and assessment	85.0
	<b>Subtotal</b>	<b>2,224.7</b>
	<b>Contingency (10%)</b>	<b>222.5</b>
	<b>Total</b>	<b>2,447.2</b>

### Monitoring the delivery of the initiatives

27. We will provide regular reports to the Education Panel on the progress of preparing for the 3+3+4 academic structure.

### **Consultation**

28. We have consulted the educational sector and the public through a three-month consultation exercise which ended on 19 January 2005. During this period, we conducted about 200 consultation events with principals and teachers, school sponsoring bodies, students, parents, employers, tertiary institutions as well as other organisations including the Legislature and District Councils, directly reaching out to over 30,000 people. We also received 3,280 written submissions from individuals and organisations, collated the views from more than 350 featured articles, media reports and radio phone-in programmes, and analysed the feedback from a questionnaire survey amongst all secondary schools on how they may plan for the prospective implementation of the 3+3+4 academic structure. The views and concerns expressed by the community have guided us in mapping the way forward.

29. The Report issued for consultation on 18 May 2005 summarises and analyses community views on the 3+3+4 academic structure, and consolidates the consensus on the way forward. There is widespread support from the community and key stakeholder groups in the education sector. However, there remain issues of concern from various quarters that need sustained consultation and dialogue as details of implementation are further developed.

### **The Way Forward**

30. Subject to Members' views, we plan to seek the approval of the Finance Committee for the creation of the non-recurrent commitment.

**Education and Manpower Bureau**  
**May 2005**