



## Undergraduate Studies Committee Agenda

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### Supplementary Agenda

for the meeting on **Wednesday 26 November 2008**

	<b>Pages</b>
<p><b>1. Apologies</b> Additional apologies have been received from: D Bowan, P McGreevy, M Rosenman.</p>	
<p><b>6. Report of the Admissions Sub-Committee</b></p>	<b>3-38</b>
<p><b>8.5 Report from Faculties</b> <b>8.5 Faculty of Science honours update</b></p>	<b>2</b>

## Agenda Item 8 Report from Faculties

### 8.5 Honours update from the Faculty of Science

The following information has been received from the Faculty of Science regarding its honours programs.

#### **Recommendation**

*That the Undergraduate Studies Committee note the response from the Faculty of Science.*

### 8.

Faculties were asked to provide a brief update on their Honours programs now that twelve months have passed since the introduction of the new Academic Board policy. The majority of honours programs offered in Science are compliant with Academic Board policy and operate as “appended” programs. However two exceptions should be noted as:

- Bachelor of Science (Nutrition) with Honours in Nutrition and Dietetics (Four year program)
- Bachelor of Applied Science (Sport and Exercise Science) / Bachelor of Science (Nutrition) with Honours in Nutrition and Dietetics (Five year program administered by the Faculty of Health Sciences)

The honours year in Nutrition and Dietetics is designed as a clinical training and is a requirement by DAA for accreditation and practice as a dietician. It does not include a dissertation as required by the policy of the Academic Board. These programs recently had their accreditation withdrawn but after an extensive review this has been reinstated.

It is proposed by the Faculty of Science that they been withdrawn in 2010 and replaced by a Bachelor of Science/ Masters of Applied Science (Nutrition and Dietetics) double degree. Discussions with the Faculty of Health Sciences are on going. Notwithstanding this, a number of students entering the Bachelor of Applied Science (Sport and Exercise Science) / Bachelor of Science (Nutrition) in 2009 may possibly be eligible to enter the non-compliant Honours in Nutrition and Dietetics in 2014 or beyond.

## Agenda Item 6 Report of the Admissions Sub-Committee

### 6.1 Report of the Admissions Sub-Committee meeting held on 7 November 2008

The Committee met on 7 November 2008 when there were present: The Chair (Professor B Sutton) presiding, Professor S Kable, Dr D Auld, Dr M Edmond, Mr P Ball, Mr C Riley, Mr T Evans, Mr T Heath, Ms J Henderson (for D Day), Ms S Wills-Johnson. Dr M Collier and Ms A Griffiths were in attendance.

Apologies were received from Professor A Coats, Professor D Day, Mr D Bowan and Mr T Robinson.

#### 6.1.1 Admission Schemes

##### **National University of Singapore High School Diploma program** **5-24**

The Sub-Committee discussed a proposal received from the the International Office for the NUS Diploma program to be recognised as a qualification for admission to the University. The NUS High School specifically caters for students with high level mathematics and science abilities. The Faculty of Science would like to be able to accept students to undergraduate programs on the basis of the Diploma and has had representatives visit Singapore to assess the program.

##### **Recommendation**

*That the Undergraduate Studies Committee recommend that the Academic Board recognise the NUS High School Diploma program for the purpose of admission to the University.*

##### **Bachelor of Veterinary Science** **25-36**

The Faculty of Veterinary Science is seeking to introduce a STAT for all applicants to the Bachelor of Veterinary Science, as well as increase the number of places available as Special Entry by providing a Rural Entry Scheme. The STAT requirement will allow more consistent application of selection criteria amongst the students from different intake areas. It should also address concerns regarding English language competency of students which current admission practices have not been able to do.

A Commitment to Veterinary Science Statement is proposed to replace the Personal Statement currently required of International and non-recent school leaver applicants.

The Sub-Committee endorsed the Faculty of Veterinary Science proposal and suggested that the number of places available under Special Entry programs be determined by the faculty on a year by year basis. The proposal had included a fixed number of places and has been amended to reflect the Sub-Committee's suggestion.

##### **Recommendation**

*That the Undergraduate Studies Committee recommend that the Academic Board*

- (1) *approve the changes to the Bachelor of Veterinary Science ,*
- (2) *note the Resolutions of the Faculty relating to the above course, made pursuant to the University of Sydney (Coursework) Rule 2000 (as amended); and*
- (3) *approve the faculty requirements relating to admission, units of study, the pass degree, combined degrees, the honours degree, specially designated streams and award of the degree, as set out in the report presented*

*With effect from 1 January 2010.*

#### 6.1.2 Flexible Entry **37-38**

##### **Faculty of Education and Social Work**

The Faculty is seeking to introduce flexible entry for Bachelor of Education degrees which will allow entry by UAC applicants with UAI's upto 5 points below the cut-off dependant on achievement of Band 4 in certain HSC courses.

##### **Recommendation**

*That the Admissions Sub-Committee endorse the proposal from the Faculty of Education and Social Work to introduce flexible entry for Bachelor of Education degrees beginning with the 2009 intake as set out in the report presented.*

### **6.1.3 Proceedings of the Committee**

The Committee also considered:

- Updated Go8 LOTE marketing material
- A request to consider LOTE Bonus Schemes
- Recent promotional material on Flexible Entry programs available by faculty.

#### ***Recommendation***

*That the Undergraduate Studies Committee note the report of the Admissions Sub-Committee as presented.*



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EDUN C 09-01-105-V7

8 September 2008

University Vice-Chancellors / Principals  
Directors of University Admissions

Dear Vice-Chancellors / Principals and Directors

## Admission of National University of Singapore (NUS) High School of Mathematics and Science Students

I am writing to you regarding the admission of students from the National University of Singapore (NUS) High School of Mathematics and Science, into your university from 2009.

2. NUS High School is a specialised school established in 2005 to cater to students who are highly talented in mathematics and the sciences, similar in concept to the renowned Thomas Jefferson High School of Science and Technology in the United States. The school targets the most talented applicants among our top performing students.

3. As NUS High School runs the Integrated Programme, which is offered by top schools in Singapore, students go through a seamless secondary and pre-university education spanning 6 years without sitting for the GCE 'O' Level Examinations. With the enriched, broad-based curriculum, students are also nurtured into well-rounded individuals. At the end of the 6-year programme, students graduate with the NUS High School Diploma, instead of the GCE 'A' Level Certificate unlike other Year 12 students in Singapore.

4. The three publicly-funded universities, National University of Singapore, Nanyang Technological University and Singapore Management University, have already accredited the NUS High School Diploma for admission. We are encouraged that top universities such as MIT, Stanford University, Yale University, University of Cambridge, University of Oxford, University of Warwick and King's College London have similarly recognised the quality and rigour of the NUS High School programme and will accept the NUS High School Diploma for admission into their universities. Their comments are shown in Annex A.



Integrity, the Foundation • People, our Focus • Learning, our Passion • Excellence, our Pursuit

5. The first cohort of NUS High School students will be graduating in end 2008 and applying to overseas universities for admission in 2009. When applying for university admission, NUS High School students will be including their school-based transcripts that will reflect their academic and non-academic achievements and interests. A sample of the NUS High School transcript is included in Annex B for your reference. In addition, the Ministry will issue an Integrated Programme information sheet to NUS High School students to indicate that they have undergone this programme. A sample of the IP information sheet is at Annex C.

6. We trust that NUS High School students applying to your university would not be disadvantaged because of their school-based qualification. Given the rigour and quality of the NUS High School programme, I am confident that you will find these students to be well prepared in pursuing their further education at your university.

7. The details of the NUS High School programme can be obtained at <http://www.highsch.nus.edu.sg/curriculum.htm>. If you or your colleagues need any clarification, please feel free to contact Ms Sng Sok Hwee or Mr Allan Uy, College Counsellors of the NUS High School, via email at [nhssngsh@nus.edu.sg](mailto:nhssngsh@nus.edu.sg) or [nhsapu@nus.edu.sg](mailto:nhsapu@nus.edu.sg) respectively.

Thank you.

Yours sincerely,



Seah Jiak Choo (Miss)  
Director-General of Education  
for Permanent Secretary (Education)

Co. Reg. No: 200500354G



8 September 2008

University Vice-Chancellors / Principals  
Directors of University Admissions

Dear Vice-Chancellors / Principals and Directors

## Recognition of NUS High School Diploma

I am writing to seek your university's recognition of the National University of Singapore (NUS) High School Diploma as an admissible qualification for your undergraduate courses.

2. The school was set up by the National University of Singapore in 2005 and is fully funded by the Singapore Ministry of Education.
3. Annually, the school receives nearly two thousand applications for its Year 1 admission which offers 170 places. The selection process is very competitive and rigorous. Applicants have to sit for a selection examination and attend a mathematics and science camp where they are assessed for their knowledge and passion in math and science. Only the top 10% of applicants are offered admission. In addition, NUS High School takes in talented youths from Asian countries like China, India and Vietnam.
4. The school's mission is to nurture world-ready and well-rounded individuals who will be poised to make distinguished contributions in all walks of life. We want them to be Pioneers, Achievers, Thinkers and Humanitarians. The vision of the school is to be the pinnacle in mathematics & science education and research.
5. The curriculum was accredited by the National University of Singapore and endorsed by the Singapore Ministry of Education in 2007. The Accreditation Committee commended the school's curriculum for being comprehensive and engaging, with modules that reflect an atmosphere of excitement that is apparent with the rapport between the students and teachers and the passion with which the students talk about mathematics and science.
6. The curriculum covers more advanced mathematics and science concepts and content than mainstream schools. Students go beyond the standard syllabus and participate in relevant field work, competitions, symposiums and laboratory work. The modular system provides the flexibility for our students to take a wide variety of accelerated, enriched and advanced learning modules. Students who are highly gifted are given special guidance and mentorship by university professors. In their final years, all students embark on an extensive research project and work closely with researchers and scientists from local universities and research institutions. Many of these students have showcased their work and gained recognition at various conferences. Also, some students have had their research

Co. Reg. No: 200500354G

findings published in journals. At the end of the 6-year programme, students who meet the graduation requirements are awarded the NUS High School Diploma.

7. NUS High School has been in the educational scene for only four years, but it is already making waves in the international competition scene. Two of our students set a new record for Singapore when they clinched the First Award in the Team Project Category at the Intel International Science and Engineering Fair (ISEF) 2008. Also at the ISEF, another two students won a Special Award from *Sigma Xi*, the international honour society of science and engineering which count among its members more than 200 Nobel Laureates. In addition, seven students have won International Olympiad medals in Mathematics, Physics and Chemistry this year.
8. In 2007 and 2008, our first batch of students took the US College Board's Advanced Placement (AP) exams and they have done very well. A summary of their results is found in Annex D. This bears testimony to the quality of the education that the NUS High School offers and the calibre of our students.
9. All 3 publicly-funded universities in Singapore recognise the NUS High School Diploma, as well as premier universities in the United Kingdom and United States for admission purposes.
10. Our first batch of students will be graduating this year and we sincerely hope that you will similarly recognise our High School Diploma for admission to your undergraduate courses.
11. If you or your colleagues need any clarification, please feel free to contact Ms Sng Sok Hwee or Mr Allan Uy, College Counsellors of the NUS High School, via email at [nhssngsh@nus.edu.sg](mailto:nhssngsh@nus.edu.sg) or [nhsapu@nus.edu.sg](mailto:nhsapu@nus.edu.sg) respectively.

Thank you.

Yours sincerely,



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Dr Wang Kim Hoo  
Principal  
NUS High School of Math &  
Science



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Professor Tan Eng Chye  
Deputy President (Academic Affairs) and Provost  
National University of Singapore

Annex A**Comments on Admitting Students from the NUS High School of Mathematics and Science**

1. "We have examined the materials presented to us regarding the NUS High School Diploma and curriculum and would like to assure you that the NUS High School Diploma will be recognised for admission to MIT."
  - *Mr Stuart Schmill, Dean of Admissions, Massachusetts Institute of Technology*
  
2. Stanford University is more than happy to evaluate any applications coming from NUS High School. We look forward to reviewing students from NUS High School who may apply to Stanford University"
  - *Mr Michael Elgarico, Associate Director, Undergraduate Admission, Stanford University*
  
3. "The NUS High School Diploma will be recognised for admission to Yale University."
  - *Ms Rebekah Westphal, Senior Assistant Director, Office of Undergraduate Admissions, Yale University*
  
4. "The University of Cambridge has reviewed the qualification and we would be very happy to consider for admission students who are taking or have taken the NUS High School Diploma"
  - *Dr G.T. Parks, Director of Admissions for the Cambridge Colleges*
  
5. "The University of Oxford, having examined the proposals for the NUS High School Diploma, will be happy to consider students applying from September 2008 for our Undergraduate programmes."
  - *Mr Michael G Nicholson, Director of Undergraduate Admissions, University of Oxford*
  
6. "The Diploma will be an admissible qualification for entry to the University of Warwick and I anticipate that Diploma students will be highly credible candidates when considered alongside the entire pool."
  - *Mr Darren Wallis, Director of Student Admissions and Recruitment, University of Warwick*
  
7. "The College has considered the specification of this qualification in detail and we would like to assure that the NUS High School Diploma will be recognised for admission to King's degree programmes."
  - *Mr Martyn Annis, Senior Assistant Registrar (Admissions), King's College London*

## Information on the Integrated Programme



Singapore Ministry of Education

This certifies that Ms ZHAO YE (NRIC S8912345A) is a student offering the Integrated Programme (IP), having completed her secondary education at NUS High School of Mathematics and Science, and is now pursuing pre-university education at the same school.

The Singapore Ministry of Education (MOE) introduced the IP in 2004 as part of the changes encapsulated in the Junior College/Upper Secondary Education Review in 2002<sup>1</sup>.

The IP targets the top 10% of each cohort of Singapore students, who are clearly university bound. Offered only in top schools which have traditionally excelled in both academic and co-curricular areas, the IP provides students with a seamless education that allows them to progress from secondary to pre-university education without having to sit for the GCE 'O' Level Examinations. With the time freed up from not having to prepare for the GCE 'O' Level Examinations, IP schools are able to deliver school-customised enriched programmes that better cater to the needs of academically bright students. These include programmes which cover content and skills beyond those tested in the GCE 'O' level examinations, and which expose students to broader learning experiences. Depending on their school, IP students will graduate at the end of their pre-university education with GCE 'A' Level qualifications, the International Baccalaureate Diploma, the Advanced Placement (AP), or the National University of Singapore High School Diploma.

We are confident that the IP provides firm grounding in preparation for university education.

<<Signature>>

Miss Seah Jiak Choo  
Director-General of Education

<sup>1</sup> The report arising from this review is available from the website of Singapore Ministry of Education (MOE) at [http://www.moe.gov.sg/jcreview/JC\\_Upp\\_Sec\\_Review\\_Report.pdf](http://www.moe.gov.sg/jcreview/JC_Upp_Sec_Review_Report.pdf).

### Advanced Placement Examination Results

	AP Chemistry		AP Calculus AB		AP Calculus BC		AP Physics B		AP Physics C	AP Biology	AP Statistics
	2007	2008	2007	2008	2007	2008	2007	2008	2008	2008	2008
Grade 5	85.7%	76.3%	98.6%	98.6%	100%	100%	100%	98.2%	100%	92.3%	94.1%
Grade 4	10.7%	14.0%	1.4%	1.4%	0	0	0	1.8%	0	7.7%	5.9%
Grade 3	2.4%	7.5%	0	0	0	0	0	0	0	0	0
Grade 2	1.2%	2.2%	0	0	0	0	0	0	0	0	0
Grade 1	0	0	0	0	0	0	0	0	0	0	0
Mean Subject Grade	4.81	4.65	4.99	4.99	5.00	5.00	5.00	4.98	5.00	4.92	4.94



# SCHOOL PROFILE

Established in 2005 by the National University of Singapore, one of the top 20 universities in the world and one of the top 3 universities in Asia (as ranked in the 2006 World University Rankings conducted by the UK's *Times Higher Education Supplement* and QS), NUS High School is the only independent school in Singapore specialising in mathematics and science with a six-year high school education programme.

### Our Vision

Our vision is to be the Pinnacle in Mathematics & Science Education and Research.

### Our Mission

The NUS High School will nurture well-rounded and world-ready individuals who will be poised to make distinguished contributions in all walks of life. They will be Pioneers, Achievers, Thinkers & Humanitarians.

### Our Motto

Experiment. Explore. Excel.

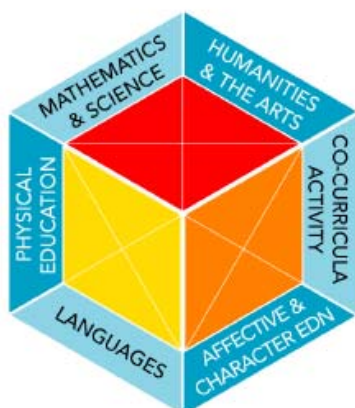
### Our Students

Students begin their 6-year education with us at the age of 12. About 2000 students throughout Singapore apply annually for admission to Year 1, and all applicants have to go through a selection test. 400 students who did well at the test are invited to the NUS High School Math and Science Camp where they are evaluated by current NUS High School teachers and students for leadership and personal character traits, as well as knowledge and passion in science. Finally 170 students will gain admission into the School. Each year, we also take in Year 3 students. These students are joined by a highly selected group of talented youths from neighbouring Asian countries like China, India and Vietnam.

### Our Teachers

Our teachers are recruited from diverse backgrounds including local schools, tertiary institutions, research institutes and the private sector. This diversity means that the teachers are able to enrich our students' learning experience through their various life experience and teaching methods. Our teachers are highly qualified, with 10% holding PhDs and 45% having a Masters degree. Committed to upgrading their skills, our teachers participate in training and developmental programmes conducted by reputed local and overseas agencies, as well as attend regular knowledge-sharing sessions with their peers.

### Our Programme



Our school offers a well-rounded programme in the following subject domains:

- Mathematics and Science
- Humanities and the Arts
- Languages
- Affective & Character Education
- Physical Education
- Co-curricula Activity

These domains aim to provide a holistic development of our students.

The six-year programme is divided into three two-year stages. In contrast to mainstream schools where students are promoted to the next level on a yearly basis, students have to meet the requirements of each stage before advancing to the next stage. Spending two years in each stage allows students more time and flexibility to meet these requirements.

The three stages are:

- Years 1 and 2: Foundation Years

The first two years are the foundation years where students acquire the fundamental skills and build their base knowledge in the subject areas. During these two years, students are introduced to our rigorous curriculum, and they go through the Innovation Programme and the Future Problem Solving Programme. These programmes adopt a multidisciplinary approach to cultivate creative thinking, problem-solving skills and critical analysis. Students are also expected to work with others as a cohesive team.

- Years 3 and 4: Advancement Years

Years 3 and 4 are the advancement stage where students consolidate their learning and apply their knowledge in individual research projects under the guidance of their teachers. This allows them to enhance their classroom learning with independent learning and hands-on research experience in an area that matches their personal interests.

- Years 5 and 6: Specialisation Years

In Years 5 and 6, the specialisation years, students hone their skills in a few subject areas and engage in an in-depth research project. This research project is a graduation requirement that provides students a platform to pursue in-depth study,



develop their critical and creative thinking skills, engage in experimentation and discovery, and apply their knowledge in comprehensive scientific investigations.

Key aspects of our unique programme include:

- *A key focus on mathematics and science*

To engage and challenge our students, our curriculum covers more advanced mathematics and science concepts and more subject content than the mainstream schools in Singapore. At the same time, teachers and students have the flexibility to go beyond the standard syllabus and participate in relevant field work, competitions, symposiums and lab work. There are also opportunities for local and overseas field trips and visits to educational and scientific institutions so that students can further their knowledge in mathematics and science.

- *A strong emphasis on inquiry and research*

Our school subscribes to inquiry-based learning in the classroom, and students are encouraged to ask questions, challenge assumptions and generate new ideas. Active discussions and learning between teachers and students, as well as among students themselves, also help students acquire and internalise knowledge.

In addition, the school curriculum places a premium on research, and we provide students with the time, space and guidance to explore subject areas of their interest. From the moment that students enter our school, they learn the skills and structure needed to complete meaningful research projects, and are given the opportunity to hone their laboratory skills. We draw on the passion and curiosity that our students have in mathematics and science, and encourage them to dream of new possibilities and develop their own hypotheses and theories. Working closely with NUS and various science institutions in Singapore such as Agency for Science, Technology and Research (A\*Star) and Defence Science and Technology Agency (DSTA), we provide real-world research opportunities for our students. Students' works are showcased in the annual NUS High School Research Congress and assessed by a panel of internal and external assessors. All students are also strongly encouraged to publish their work with their mentors and present their findings at conferences.

- *Flexible and individualised learning*

The NUS High School curriculum is based on a modular system. Each of the major subjects is divided into topics to form modules and students need to read all the core modules for a subject. In addition, they can choose multiple elective modules to gain a deeper understanding and knowledge of a particular subject area, or choose enrichment modules across various subject areas for a broad-based learning experience. This flexibility allows



students to design a learning plan that suits their interests and passions. Students can also progress at their own pace by choosing more modules in one semester and fewer in another.

Our school allows students who are particularly strong in one subject to be granted exemption from reading a module. To gain exemption, they need to perform well on a diagnostic test and have their teacher's recommendation. Students who are granted exemption of a module may proceed to another module at a higher academic level. In this way, gifted students can take classes a year or two ahead of time in the subject that is their forte. Students who have accelerated beyond the six-year curriculum have the opportunity to continue their learning by taking modules at the National University of Singapore at the undergraduate level. It is therefore possible for students from our school to graduate from Year 6 with several courses of undergraduate work already completed.

- *Pro-Risk Taking*

To promote curiosity and openness to learning, our programme encourages students to explore new and unfamiliar subject areas through elective or enrichment modules. Students are able to select those modules they have done well for grading purposes, and are hence not penalised if they do not do well after trying out new topics. In addition, regardless of the outcome of their research projects, students are graded highly as long as they demonstrate that they have learnt and improved from the experience.

- *An emphasis on whole-person development*

At NUS High School, we emphasise educating our students in both mind and character. Hence, besides providing our students with a rigorous academic education, we have a rich student life programme that encourages our students to explore new interests, acquire new skills and knowledge, build bonds, initiate and lead in various school-wide activities. Students choose from a range of co-curricular activities that suit their interests, and are encouraged to contribute to the larger good of the community through performing community service. There are also leadership development opportunities to help students enhance their personal effectiveness.

- *A community-based experience*

Our school aims to nurture quality relationships and create a supportive community for our students. Under the Affective and Character Education (ACE) programme, every student is assigned a teacher-mentor who acts as a role model and provides guidance and counselling to help students develop individually. Teacher-mentors work with students to review and discuss their academic work, co-curricular activities, interests and passions through their individual development plans, and are

also available to discuss with students their personal problems. The ACE Programme is further supported by professional pastoral and college counsellors.

In addition, our Year 5 students have the opportunity to live in our residence halls under the supervision of professional staff members. The residential experience aims to help our students become more independent and confident. The additional time and space also allows them opportunities to spend more time on their research project, participate in various community activities and develop leadership qualities.

### Our High School Diploma Graduation Requirement

At the end of the 6-year programme, students must fulfill the following minimum requirements to graduate with the NUS High School Diploma:

- Pass all required core modules in the 6 years
- Achieve a Cumulative Average Point (CAP) of 2.5 out of a maximum of 5.0
- Pass in English Programme
- Fulfill of Mother Tongue Requirement
- Complete a Mathematics major
- Complete two Science majors
- Complete a Research Project

Students who excel in a particular subject can elect to undertake more modules and carry out a more extensive Research Project. Completing these additional requirements will allow them to graduate with Honours in that subject area.

### Student Achievements

#### **College Board Advanced Placement Examinations**

Our school recognises that it is important to have an international benchmark to distinguish the standards of our curriculum and the quality of our students. Hence, all our students sit for the College Board Advanced Placement Examinations when they are in Year 5 and 6.

In 2007, our first batch of Year 5 students sat for some of the papers and did exceedingly well.

	AP Chemistry		AP Calculus AB		AP Calculus BC		AP Physics B		AP Physics C	AP Biology	AP Statistics
	2007	2008	2007	2008	2007	2008	2007	2008	2008	2008	2008
Grade 5	85.7%	76.3%	98.6%	98.6%	100%	100%	100%	98.2%	100%	92.3%	94.1%
Grade 4	10.7%	14.0%	1.4%	1.4%	0	0	0	1.8%	0	7.7%	5.9%
Grade 3	2.4%	7.5%	0	0	0	0	0	0	0	0	0
Grade 2	1.2%	2.2%	0	0	0	0	0	0	0	0	0
Grade 1	0	0	0	0	0	0	0	0	0	0	0
Mean Subject Grade	<b>4.81</b>	<b>4.65</b>	<b>4.99</b>	<b>4.99</b>	<b>5.00</b>	<b>5.00</b>	<b>5.00</b>	<b>4.98</b>	<b>5.00</b>	<b>4.92</b>	<b>4.94</b>

Amongst our first batch of graduating students, these are some of the other achievements attained in 2007 and 2008:

- Winning 8 attachment opportunities to prestigious global places such as the International Summer School for Young Physicists in Canada, Centre for Excellence in Education Summer Program at Massachusetts Institute of Technology, and International Science Camp in Alabama.
- Publication of research work in the international Physics journal *Applied Physics B*.
- Publication of a leadership book "50 Math and Science Games for Leadership".
- Awarded scholarships for academic excellence from various Singapore organisations including the Ministry of Education, Agency for Science, Technology and Research (A\*Star) and Defence Science and Technology Agency (DSTA).
- In the 39th International Physics Olympiad (2008), 3 out of 5 who represented Singapore are from NUS High School. And we bagged 2 Individual Silver & 1 Individual Bronze medals.
- In the 40th International Chemistry Olympiad (2008), our team represented Singapore and bagged 2 Individual Bronze medals.
- As for the 49th International Mathematics Olympiad (2008), our team won 1 Individual Silver & 1 Individual Bronze Medal.

For further information, please contact  
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 Mr Allan Uy at [nhsapu@nus.edu.sg](mailto:nhsapu@nus.edu.sg)

**Professor David Day**  
Dean

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16 September 2008

Mr Peter Ball  
Director, International Office  
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The University of Sydney  
NSW 2006 Australia

Dear Mr ~~Ball~~ *Peter*

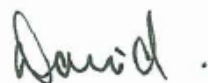
The Faculty of Science was approached recently by representatives of the National University of Singapore High School of Math and Science. This is the only independent school in Singapore specialising in mathematics and science with a six-year high school education program. On completion of this program students receive an NUS High School Diploma. The school sought recognition of this Diploma for admission to undergraduate science programs at the University of Sydney.

I have reviewed the curriculum and the Accreditation Report by the National University of Singapore. In addition the Associate Dean (International) visited the school and his report is attached (Annexure 1). I am satisfied that students who complete this program will be suitably prepared for programs in the Faculty of Science. We have created a schedule (based on UAC schedule T8033) for converting the CAP score from the Academic Transcript of the Diploma to a UAI equivalent. This schedule is attached (Annexure 2). Students in this program also receive a Research Transcript and Testimonials but these will not be used in assessing applicants for admission.

The Science admissions team in the International Office should be advised as soon as possible that the National University of Singapore High School of Math and Science Diploma is accepted by the Faculty of Science and they should use the attached schedule to assess applications.

We will advise the school of our decision.

Best wishes



David Day  
Dean, Faculty of Science

## Annexure 1

### Report on the NUS High School of Math and Science

#### Background

The NUS High School of Math and Science is a Ministry of education initiative. It was initiated following a visit by the minister to Thomas Jefferson High School in the United States. The link to NUS is 'branding' rather than real in the sense that the NUS name was added to give credibility to the project. NUS did not initiate it. The school is thus not a feeder for NUS. NUS has evaluated the program (a summary of their report is in the documents provided by the school) and given it qualified approval. NUS has, however, guaranteed admission to any student who obtains a Diploma from the school.

#### Acceptance in Singapore

NUS has agreed to accept students who complete the Diploma. NUS has indicated it will find places for all graduates, i.e., students who achieve a CAP (see below) of 2.5 but have not indicated how they will match Diploma scores with A levels etc. and are not guaranteeing places in any particular degrees.

Singapore scholarship providers have all agreed to allow the school's graduates to apply for their scholarships. Students must have a CAP of 3.6 to apply for D\*STAR and DSTA scholarships. D\*STAR also have criteria related to the research portfolio. The public service scholarships which are offered to applicants ranging from the very best to the quite ordinary have also agreed to consider applicants but because of the wide range they offer have not set any minimum other than completion of the Diploma.

#### Selection and numbers

The current graduating cohort is ~80, all admitted to year 3. At steady state they plan to graduate 240 students each year. Recruitment is principally at the end of primary school. They are receiving about 2,000 applications each year (from a pool of about 30,000). These applicants sit an admission test (no details) and 400 are selected for a weekend 'science camp' which seems to be a combination of evaluating science aptitude and personal attributes. 150 of these are admitted and 90% of these are in the top 5% academically of those who applied. The others have revealed some special aptitude.

In year 3 another 70 students are admitted (not sure of the process) and the mix here is about 40:30 International:Singaporean. This is the main entry point for international students some of whom have Singapore government scholarships. They come principally from the PRC and Vietnam but there is a sprinkling of others. There is residential accommodation for international students. All students regardless of origin spend their 5<sup>th</sup> year living on campus ostensibly to teach them the reality of all night experiments and the real research life. I thought the motive was very Singaporean but the experience is, I'm sure, excellent for the students.



































