

Student Affairs: From Admission to Graduation

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This paper deals with the admissions procedure and method of streaming NTU students into the various disciplines of engineering. The campus activities and residential life of the students, including the counselling service to cater for their needs, are described. Lastly, the establishment of an endowment fund and an office to look after our alumni affairs is discussed.

INTRODUCTION

THE NANYANG Technological University (NTU) currently has an undergraduate student population of about 13,000. Out of this about 5,000 students read courses in engineering leading to a Bachelor of Engineering degree, while another 1,000 students read courses in computer engineering and materials engineering leading to a Bachelor of Applied Science degree. The remaining 7,000 students pursue courses in accountancy, business, communication studies, arts, science, education and physical education. The majority of our students stay on campus. The NTU strives to be a residential university despite the rapid growth in its student population, because it is our firm belief that staying on campus helps in character building and enhances the quality of university life. Through living in halls of residence and participating in campus activities the students receive an all-round education beyond that provided by pursuing their specialty of study. A department known as the Student Affairs Office not only runs the halls of residence but also advises and assists the students in organizing their activities.

Special attention has always been given to student counselling. Two counselling schemes have been evolved, one in the schools of engineering and the other in the halls of residence. The former concentrates more on academic counselling and career guidance, whereas the latter caters to matters arising out of living in the halls of residence.

The NTU has a relatively young alumni: our first batch of students graduated in 1985. Our alumni are therefore small in number compared to older universities and we have little tradition to build on. However, we have established a department known as the Endowment Fund and Alumni Affairs Office to promote alumni relations and to raise funds for the university. We intend to nurture all our undergraduates from the day they matricu-

late through to their graduation and beyond. We hope to establish a sense of belonging to the University through caring for our students during their university days, and when they graduate to maintain our links with them. We thus hope to succeed in time to build a tradition of a strong bond between the University and its alumni.

ADMISSIONS AND ASSESSMENT OF STUDENTS

The majority of students enter the university through a joint admissions exercise conducted annually by the NTU and the National University of Singapore. The Joint Admissions Selection Committee consists of all the deans of the schools and faculties of the two universities and is jointly chaired by the President of the NTU and the Vice-Chancellor of the National University of Singapore. Applicants are required to submit only one application to the Joint Admissions Office, indicating their preference for the courses for which they wish to be considered from a list of courses offered by both universities. Guidelines for the number of places to be offered in the various degree courses are provided by the Council for Professional and Technical Education. This government body looks into the manpower planning for the needs of Singapore both in the short as well as in the long term. The growth in our undergraduate enrolment in the engineering courses over the past ten years is given in the Table 1. The growth reflects the need of engineering manpower for national development. The selection of the students are based on the results of the Singapore Cambridge GCE A-level examination or equivalent examination. (The A-level is equivalent to the completion of the 12th grade in US high schools.) In addition to passes in the General Paper and in languages, the engineering course requires

Table 1. Student enrolment in engineering and applied science courses (undergraduates)

Academic year	Engineering	Applied science		Total
		Computer engineering	Materials engineering	
1982-83	582	—	—	582
1983-84	1267	—	—	1267
1984-85	1945	—	—	1945
1985-86	2078	—	—	2078
1986-87	2202	—	—	2202
1987-88	2341	—	—	2341
1988-89	2539	—	—	2539
1989-90	3126	157	—	3283
1990-91	3538	412	—	3950
1991-92	4461	660	49	5170
1992-93	4701	832	103	5636
1993-94	4727	846	162	5735
1994-95	4873	834	202	5909

two passes at advanced level in a mathematics subject and in physics or physical science.

All students reading for the degree of Bachelor of Engineering follow a common first-year course. At the end of the first-year course, they are streamed into the respective disciplines of civil, electrical and mechanical engineering for the remaining three years of study. A smaller number, approximately 25%, of students are polytechnic graduates who enter directly into the second-year course. These students are required to have good academic records and to have obtained a relevant diploma from one of the polytechnics in Singapore. Their working experiences are usually taken into account in the admission exercises. The Bachelor of Engineering degree courses in civil, electrical and mechanical engineering are of four years duration. Honours and 'pass with merit' are awarded to engineering students who have performed well academically throughout their course of study. The students reading for the degree of Bachelor of Applied Science follow a course of three years duration in either computer engineering or materials engineering. The programme offers an optional fourth-year study leading to an honours degree. The admission exercise is similar to that for the engineering course.

Assessment of student performance is based mainly on written examinations held at the end of each academic year. From the academic year 1994/95, when our University adopts a semester system, the main written examinations are to be held at the end of each semester. Continuous assessments where applicable are given weightings of less than 30%, except for laboratory and design-based subjects where continuous assessments are naturally given greater emphasis.

CAMPUS ACTIVITIES AND RESIDENTIAL LIFE

The University facilitates the organization of a great variety of recreational, sports and cultural activities through over 40 clubs and societies that cater to a multitude of diverse student interests. The Student Affairs Office provides advice and assistance for the organization of these activities. It also assists the student bodies to raise funds from foundations and other private establishments for educational and meaningful projects.

All matriculated full-time undergraduate students of the University are members of the NTU Students' Union. The main objectives of the Students' Union are to safeguard the interest of the students in the University and to promote their social, cultural, educational and recreational activities. Each year, the Students' Union elects its own Executive Committee which is responsible for the execution of the Union's policies.

Nanyang House is the centre for student activities. The three-storey building, located at the top of a hill and overlooking the NTU campus, provides an ideal place for students to interact and relax. It is well equipped with modern facilities and equipment such as a photography dark room, music rooms, a dance room and an indoor range. Offices of the Students' Union, clubs and societies are housed in this centre, and many of the students' meetings and gatherings are held in the function room. In short, Nanyang House is the hub of student activities throughout the year.

Despite the many leisure activities competing for NTU students' time, they have consistently found time to show their concern for the environment and for the less privileged members of the community. They are extremely active in raising funds for the needy, not only at home but also abroad, volunteer-

ing their help for the disabled, old folks and orphans and participating in many community service projects.

The Sports and Recreation Centre is responsible for the organization of various sporting activities and games for the students. There is a comprehensive sports complex which offers both indoor and outdoor facilities.

Our wide ranging intra-mural programme offers students an opportunity to participate actively in sports. Some of these activities include the annual track and field and swimming championships, cross campus race, inter-school games and individual championships for badminton, tennis, squash, etc. The more talented sportsmen and sportswomen are selected to represent the University in the Intercollegiate Games (locally known as the Inter-Varsity Polytechnic Games) which comprise 21 disciplines.

In the international scene, our University participates in the Asean University Games. Together with the National University of Singapore we have also formed a combined University team to compete against our Asean neighbours. Sports activities are also prevalent at the halls of residence level. The Students Sports Club, together with the Sports and Recreational Club, organizes courses in canoeing, life-saving, scuba-diving, tennis and squash for beginners and many others to encourage participation in sporting activities.

The NTU aims to be a residential university. Students and staff live in a campus village nestled among hills, valleys, green fields and a lake. They enjoy high-quality facilities that cater to almost every taste. In addition, a host of recreational, cultural and intellectual activities organized by the various student clubs add zest to campus life throughout the year.

At present, there are 11 halls of residence, providing accommodation for about 6,500 students. The facilities and amenities in these halls are designed to provide a pleasant environment conducive to study and to promote community life in the University. All accommodation is in the form of fully furnished single/double bedrooms.

The halls of residence are run by the Student Affairs Office. In addition, there is a Board of Counsellors for each hall of residence. It consists of at least five resident and three non-resident counsellors. The 'hostelites' of each hall elect the Junior Common Room Committee (JCRC) to look after the interest and well being of the residents of the hall. Every year the JCRC organizes an orientation camp to welcome new residents to the hall. The orientation activities, which last for about a month, culminate in a night of dinner and dance. Throughout the year, the JCRC organizes inter-hall and inter-block sports and recreation games, cooking competitions and other social activities to foster a spirit of camaraderie among the residents.

STUDENT COUNSELLING AND CAREER GUIDANCE

Ever since the establishment of the NTU, much thought was given to the various kinds of counselling services that could be provided for the students. It was generally felt that the University should provide a counselling service that possesses its own characteristics relevant to the NTU context and at the same time cater to the needs of the students. Two counselling schemes have been evolved, one in the schools and the other in the halls of residence.

Efforts have been taken to define the roles of the two counselling schemes in the University in order to avoid confusion and conflict. Although the two schemes may have different functions and operate within different framework, they are interrelated and form part of the integrated plan of the University to cover a wide range of student needs.

Student counselling in the schools

The counselling scheme in the schools was initiated at the suggestion of Dr John Brown, in his capacity as an advisor to the University. He expressed the need for the schools to formulate a good counselling scheme that would enable students to discuss their problems with the academic staff freely and also enhance good staff-student interaction.

Under the scheme, the students in each school are divided into groups of 10-15 and allocated to a member of the academic staff whom they can have easy access to. It is intended that the staff retain the same students throughout their course of study so that a good rapport can gradually be built up. Regular meetings are held between the students and their staff. During these meetings, the staff check on the progress of the students and at the same time give advice and guidance on academic and, to some extent, other personal matters, including career guidance.

However, the counselling scheme in the schools is not meant just to help students solve their problems; neither are staff expected to take on a restricted, problem-oriented role. Under this scheme, the staff also hold discussions of current technical interest with the students so as to encourage them to read widely on engineering topics and keep abreast with technological developments.

Special attention has been given to our first-year students who attend a common engineering course. As it is their first year in University, it is felt that they need the most guidance on how to study and manage their time, and generally to adapt to university life. They will also require special guidance on the choice of career and courses as they are streamed at the end of their first year into the Schools of Civil, Electrical and Mechanical Engineering. Group counselling by counsellors drawn from all three engineering schools is therefore provided for each group of students. The student groups generally number about 30 and they

are counselled by a team of three counsellors, one from each school of engineering. This enables our first-year students to have access to student 'mentors' who are well versed in the three main engineering disciplines which they can specialize in during their subsequent years of study.

Counsellors in the halls of residence

The 11 halls of residence are run on a system that has been modified from the halls of residence in other institutions. The hall counsellors have the individual and collective responsibility of looking after the welfare of the student residents in the halls and assisting and guiding them in their activities.

Attention is focused on the personal and social problems confronted by the student residents, rather than on academic matters, which are left to the schools. There is a need to help the student residents adjust to the new environment in the University, and to overcome the stresses in their studies by stimulating corporate life and fellowship in the halls.

In each hall, there are five residential counsellors and three non-resident counsellors appointed from among the teaching and administrative staff. Each counsellor takes charge of a few hostel blocks and is required to pay regular visits to the hostel blocks so that any problems or grievances within the blocks can be dealt with without delay. In addition, the counsellors also hold regular meetings with the Junior Common Room Committee, consisting of student representatives in the halls who are responsible for the organization of the hall activities.

There is a Head of Counsellors for each hall, and these sit in the Hall Delegacy to consider matters relating to the management of the halls. The Head of Counsellors and counsellors do not get involved in the day-to-day running of the halls, which is left to the Student Affairs Office.

Student counselling service

To complement the student counselling in the schools and the halls of residence, a Student Counselling Service has been set up by the Student Affairs Office to assist and advise students in areas other than those of an academic nature and hall matters. It aims to provide support and assistance to students who face personal, social and situational anxieties. The counsellor, who is trained in psychology, primarily works towards helping students understand a problem better. All such counselling services are conducted in the strictest confidence.

UNIVERSITIES ENDOWMENT FUND

The Universities Endowment Fund (UEF) was launched in October 1991 by former President Wee Kim Wee. That same year, the Endowment Fund Development and Alumni Affairs Office was set up in the NTU. Working together with the

National University of Singapore, it aims to raise \$1 billion for the UEF.

With a sizeable endowment fund generating steady revenue, each university will be able to plan and execute new and innovative projects and programmes that will not only stimulate research and scholarship but also enable the universities to become better known internationally as centres of academic excellence. At the NTU, students will therefore be able to receive the best education Singapore's resources can provide.

The Singapore Government has contributed \$500 million to the Fund: \$250 million each for the NTU and the NUS. In addition, it will match all donations dollar for dollar up to \$250 million. Therefore, both universities have the task of raising \$250 million.

Staff members and students at the NTU are encouraged to support the UEF and to share the University's commitment and responsibility to higher education. They are involved in various UEF fund-raising projects, and have participated in events like the NTU Walkathon and the UEF Ultramarathon. Furthermore, students have initiated their own projects like Charity Week '93 in which a portion of the proceeds raised was donated to the UEF. The student's efforts and contributions have brought the NTU closer to the target amount to be raised.

ALUMNI AFFAIRS

The other aspect of the Endowment Fund Development and Alumni Affairs Office is cultivating undergraduate and alumni relations.

The first batch of alumni graduated in 1985. Now, the figure has increased to 12,000 and grows by about 3,000 every year as new graduates join this growing family of alumni. Graduation does not signify the end of a graduate's relationship with the University. Regular gatherings and reunions are organized for alumni, who appreciate the opportunity to see their old lecturers again, and to catch up with ex-classmates.

A quarterly magazine, *NTU Link*, is sent free of charge to all alumni, and serves as a channel of communication between the University and its alumni, and among alumni themselves. The magazine features the latest developments at the University, news on lecturers and alumni, as well as articles written by them.

Through the many alumni activities organized by the University and the publication of the alumni magazine, the link between the University and its alumni has been further strengthened.

CONCLUSIONS

The number of students reading engineering and applied science, determined according to the manpower requirements of Singapore, has grown from

about 2,000 to 6,000 over a period of 10 years. Rapid expansion of the university facilities and increases in staff number were made to cater for this growth.

The engineering students come mainly from the junior colleges after taking their A-level examinations. Some polytechnic graduates with good academic records and relevant working experience are admitted directly to the second-year course. Despite the rapid growth in student population, the NTU aims to be a residential university. Priorities are given to the first year undergraduates as well as those who are active in the clubs, societies and other extra-curricula activities. A vibrant campus life and extra-curricula activities are viewed as

important components to the provision of a balanced education.

The students are provided with counselling on academic matters and career guidance through a student 'mentor' scheme in the Schools of Engineering, as well as guidance related to living on campus by hall counsellors. The Universities Endowment Fund and Alumni Office actively supports and promotes alumni activities and serves as a link to strengthen the bonds between the University and its alumni.

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