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Dr. Tsu-Tian Lee, President of NTUT

Awards and Honors

National-Endowed Chair, Ministry of Education, Taiwan, 2003, 2006

Fellow, Institute of Electrical and Electronic Engineers (IEEE), U.S.A., 1997

Fellow, Institution of Electrical Engineers (IEE), U.K., 2000

Fellow, New York Academy of Sciences (NYAS), U.S.A., 2001

Academic Achievement Award in Engineering and Applied Science, Ministry of Education, Taiwan, 1997

Distinguished Research Award, National Science Council, Taiwan, 1991~1998

Distinguished Research Fellow, National Science Council, Taiwan, 1999~2005

TECO Science and Technology Award, Taiwan, 2003

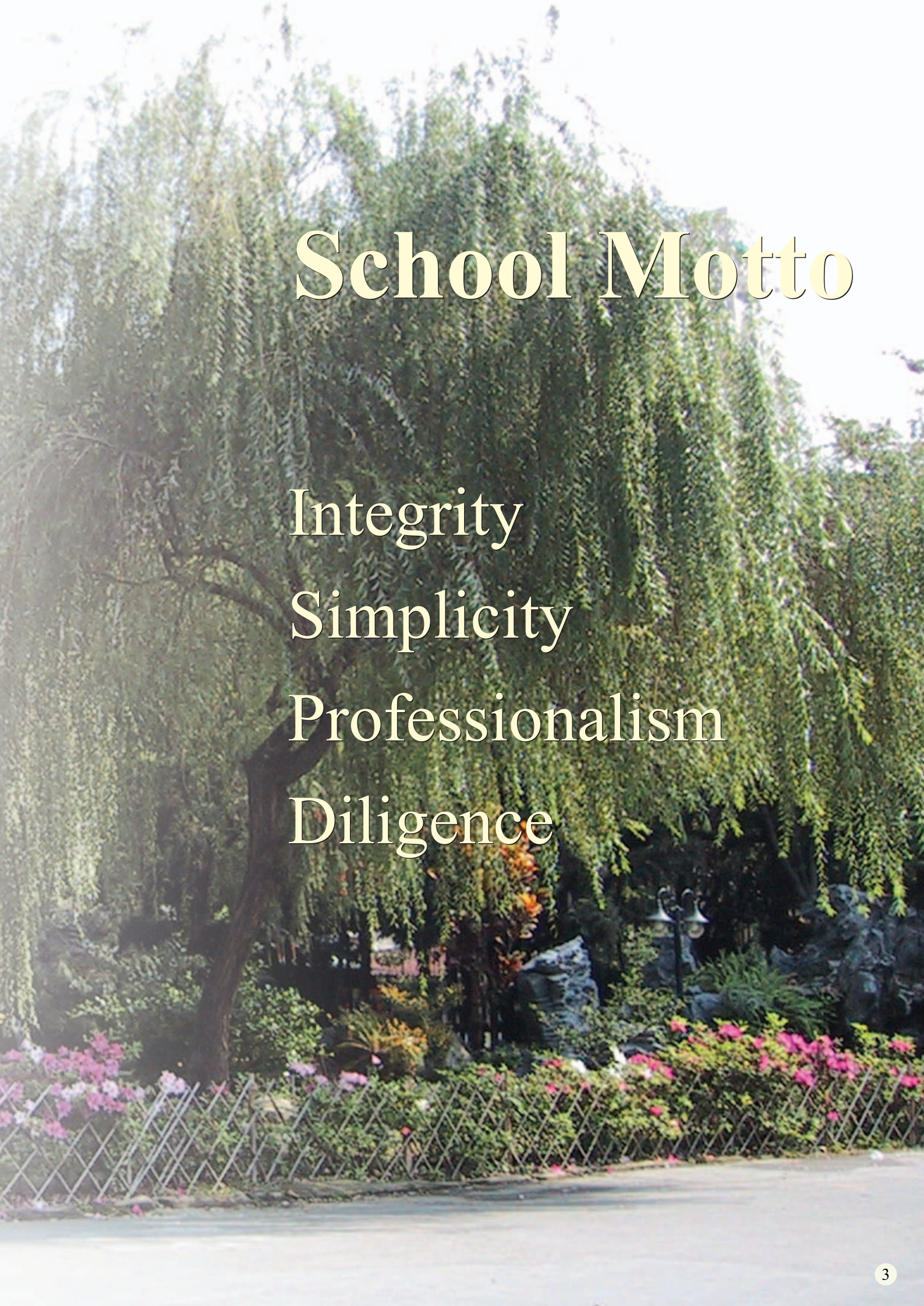
President's Preface

National Taipei University of Technology (NTUT) was founded in 1912, the year when the Republic of China came into existence, as a pioneering academic institute dedicated to industrial education. It has been renamed since then as Taiwan Public Industrial School of Taipei (1919), Taipei First Industrial School (1921), Provincial Taipei Industrial Vocational School (1945), Provincial Taipei Institute of Technology (1948), National Taipei Institute of Technology (1981), and National Taipei University of Technology (1997). Since 1912, over 100,000 students have graduated from the university. At home and abroad, they have demonstrated outstanding achievements in professional fields as well as academic arenas. They are not only the university's but also the nation's assets because of the crucial contributions they have made to Taiwan's technological and economic development.

On February 1, 2004, I was greatly honored to become NTUT's twelfth president. Upon my assumption of this position, I have been compelled by a deep sense of responsibility to lead and develop the university into an internationally renowned and technologically innovative flagship of higher academic institutions. Given our nearly a century of glorious achievements, with the joint efforts of our faculty, staff, students, and alumni, I believe that it will not be long before we achieve the sublime goal we have set for the university, which is developing and expanding to become a first-class institution for learning and research.

Since the school became a university, six colleges have been founded. They are the College of Mechanical and Electrical Engineering, the College of Electrical Engineering and Computer Science, the College of Engineering, the College of Management, the College of Design, and the College of Humanities and Sciences. Currently, the university has 16 departments and 25 graduate institutes. It has been and will still be dedicated to cultivating leading intellectual elites in humanities and sciences as well as innovative technological specialists by promoting academic research and the quality of education on both the undergraduate and graduate levels. It will strengthen the tie between the school and its alumni, endeavor to recruit outstanding scholars to join its faculty, lobby the Ministry of Education with a feasible plan and a cogent rationale for opening the door of technological universities to a higher proportion of senior high school graduates. It will establish unique and pioneering research centers and strategic partnerships with major research institutions at home and abroad to share research resources and results. A fund-raising unit will be set up to substantially improve the university's financial status. The university will greatly enhance its academic research and learning environment, strengthen its cooperation with industries, and expand its continuing education programs and community services. Above all, the university aims to promote international scholarly exchange, and elevate its international academic reputation and status.

NTUT is a university with an honored tradition and widespread acclaim. I welcome your advice, which will surely facilitate our achievement of the aforementioned goals. With your support, I believe, our students, faculty and staff will be better equipped to bear the brunt of any challenges that might accompany our pursuit of an even more glorious future.

A large, leafy tree with a lattice fence and flowers in the foreground.

School Motto

Integrity

Simplicity

Professionalism

Diligence

History

- 1912** The School of Industrial Instruction was established at the current address of National Taipei University of Technology, and began courses in Civil Engineering, Metalwork and Electrical Engineering.
- 1918** The Industrial School of the Japanese Viceroy's Office in Taiwan was added, admitting Japanese students to study Mechanics, Applied Chemistry, and Civil Engineering.
- 1919** The Institute of Industrial Instruction, the Viceroy's Office in Taiwan, was renamed as the Public Taipei School of Industry.
- 1921** The Industrial School of the Viceroy's Office in Taiwan was renamed as State First School of Industry in Taipei, still admitting Japanese students. The Public Taipei School of Industry was renamed as State Second School of Industry in Taipei, recruiting Taiwanese students. Students of both schools still received their education on the same campus.
- 1922** State First School of Industry in Taipei was renamed as Taipei First School of Industry, a five-year school, recruiting Japanese as well as Taiwanese students.
- 1923** Taipei First School of Industry and Taipei Second School of Industry were combined to form State Taipei School of Industry. An Electricity Department was added to the school, which offered five-year and three-year programs.
- 1929** The three-year program of State Taipei School of Industry was converted into a two-year program.
- 1937** The Department of Mining and Metallurgy was established. There were in all six departments then: the Departments of Mechanics, Civil Engineering, Applied Chemistry, Electricity, Architecture, and Mining Metallurgy.
- 1945** Taiwan was liberated from the Japanese Empire, and State Taipei School of Industry was renamed as Provincial Taipei Vocational School of Industry.
- 1948** Provincial Taipei Industrial Vocational School was upgraded to Provincial Taipei Institute of Technology, offering a five-year program, and admitting junior high-school graduates to study in the fields of Mechanics, Electrical Engineering, Chemical Engineering, Mining and Metallurgy, Civil Engineering, and Electronic Engineering.
- 1953** A three-year program was established, admitting senior high-school and vocational school graduates to study in Textiles, Mechanical Engineering, Electrical Engineering, Chemical Engineering, Civil Engineering, Mining and Metallurgy, Electronic Engineering, and Industrial Engineering.
- 1961** A two-year program was founded, admitting industrial school graduates to major in Electronic Engineering, Mechanical Engineering, Electrical Engineering, Chemical Engineering, Nuclear Engineering, and Industrial Engineering.
- 1965** An evening three-year program was established, admitting senior high-school and industrial school graduates who had fulfilled their military obligation or were exempt from military service to complete their education in four years in Mechanical Engineering, Electrical Engineering, Electronic Engineering, Chemical Engineering, Mining and Metallurgy, Civil Engineering, Textiles, Industrial Design, and Industrial Engineering.
- 1972** Started cooperation with public and private enterprises to help train the work force, provided material testing services as well as opportunities for further education and technical cooperation.
- 1977** A two-year supplementary school was established, which recruited high-school and vocational school graduates to complete their education in three years in Mechanical Engineering, Electrical Engineering, Chemical Engineering, Industrial Engineering, Electronic Engineering, Civil Engineering, Textiles, and Architecture.



- 1981** It was converted into National Taipei Institute of Technology.
- 1987** The architecture division of the Department of Industrial Design became the Department of Architectural Design. The Department of Industrial Engineering was renamed as the Department of Industrial Engineering and Management. The Department of Nuclear Engineering stopped recruiting students.
- 1988** The Department of Mining and Metallurgy was renamed as the Department of Materials and Mineral Resources.
- 1994** It was upgraded to National Taipei Institute of Technology with four- and two-year programs. The two-year program began to recruit junior college graduates to the Departments of Mechanical Engineering, Electrical Engineering, Chemical Engineering, Materials and Mineral Resources, Civil Engineering, Electronic Engineering, and Industrial Engineering. The four-year program started to recruit high-school and vocational school graduates to pursue studies in the Departments of Mechanical Engineering, Electrical Engineering, Chemical Engineering, Materials and Mineral Resources, Civil Engineering, Textiles, Electronic Engineering, Industrial Engineering, Industrial Design, and Architectural Design.
- 1996** The Graduate Institute of Mechatronic Engineering was established.
- 1997** National Taipei Institute of Technology was renamed as National Taipei University of Technology. The Department of Vehicle Engineering and the Department of Refrigeration and Air-conditioning Engineering were established. In addition to the Graduate Institute of Mechatronic Engineering, three more graduate institutes were established: the Graduate Institute of Computer, Communication and Control Engineering, the Graduate Institute of Civil and Disaster Prevention Engineering, and the Graduate Institute of Production System Engineering and Management. In the same year, the university began to recruit two-year on-the-job program students.
- 1998** The Graduate Institute of Electrical and Energy Engineering, the Graduate Institute of Technological and Vocational Education, the Graduate Institute of Materials and Mineral Resources Engineering, the Graduate Institute of Commerce Automation and Management were established. The Department of Architectural Design changed its name into the Department of Architecture.
- 1999** Six more master degree programs were added to the original ones. They were: the Graduate Institute of Manufacturing Technology, the Graduate Institute of Air-Conditioning and Refrigeration Engineering, the Graduate Institute of Opto-electronic Technology, the Graduate Institute of Biotechnology, the Graduate Institute of Organic and Polymeric Materials, and the Graduate Institute of Architecture and Urban Design. The Department of Business Management and the Department of Applied English were established in the same year, both of which belong to the two-year program.
- 2001** Two Ph.D. programs and two undergraduate departments were established: the Graduate Institute of Mechanical and Electrical Engineering, the Graduate Institute of Engineering Technology, the Department of Photonics, and the Department of Computer Science and Information Engineering.
- 2006** President Tsu-Tian Lee, along with 29 teachers and students of NTUT, visited The Republic of The Gambia from August 17th to September 1st. President Lee was awarded “National Honor” by the Gambian President Alhaji Dr. Yahya A.J.J. Jammeh. In the same year, one Ph.D. program was established: the Graduate Institute of Design.
- 2007** Thus far, the university has 16 departments and 25 graduate institutes.



PROGRAMS AND ADMISSION

1. **Doctoral Program:** Applicants must be graduates from a university or college and hold a master's degree, or an equivalent academic qualification, in a related field. Applicants must also pass the entrance exam for the doctoral program.

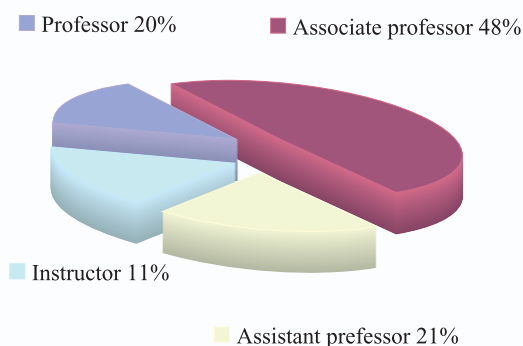
Master's Program: Applicants must be graduates from a university or college and hold a bachelor's degree, or an equivalent academic qualification, in a related field. Applicants must also pass the entrance exam for the master's program.

2. **Two-Year Program:** Applicants must be graduates from a junior college, or have an equivalent academic qualification. Applicants must also pass the university entrance exam or be accepted through the referral system.
3. **Four-Year Program:** Applicants must be graduates from a vocational school, senior high school or

comprehensive high school, or have an equivalent academic qualification. Applicants must also pass the university entrance exam or be accepted through the referral system.

4. **Two-Year Continuing Education Program and the Affiliated College of Continuing Education:** Applicants must be graduates from a junior college and pass the university entrance exam. (The Continuing Education Program conducts classes in the evenings from Monday to Friday; the Affiliated College of Continuing Education conducts classes on Saturdays and Sundays)
5. **Master's Programs for On-the-Job Students:** Applicants must meet the requirements for the Master's Program, and must also have significant professional experience in a related field or present evidence of special service. Applicants must be accepted through the referral system.

FACULTY



The total number of full-time faculty members (including 81 professors, 194 associate professors, 86 assistant professors, and 45 instructors) is 406. Members at and above the level of assistant professor account for 89% of the faculty. 90% of those above the level of assistant professor hold doctoral degrees. Every teacher in NTUT possesses well-rounded educational background and has experience in teaching and doing research.

RECRUITMENT OF INTERNATIONAL STUDENTS

NTUT has been actively recruiting international students in recent years. Currently the international student population amounts to near 200, and continues to increase, with students from more than ten countries and regions in the world. The Office of Academic Affairs develops a website exclusively for international students to assure them of the information updates, as well as an English-language online course selection system and teaching evaluation system. Additional services for overseas students include the International Student Orientation and International Students Handbook, both providing a wide variety of information on academics and student life.

NTUT provides Chinese language courses as well as fundamental courses in English. The Office of Academic Affairs and the Art Center have also collaborated to implement a series of courses related to Taiwanese culture in order to encourage overseas students to experience the culture of Taiwan. The university also assists in student life in many other ways, such as providing dormitory rooms for foreign students. Additionally, scholarships are available for overseas students who excel academically during their time at NTUT.



DUAL CURRICULUM EMPHASES ON THEORIES AND APPLICATIONS

1. To achieve the goal of integrating theoretical knowledge and practical applications, each undergraduate department has created a Practical Project course to ensure each student can apply the theoretical knowledge obtained over their 2 to 3 years of training. Students with outstanding practical project are recommended by their respective departments to participate in national competitions. Not only does this prove the student's ability to combine theoretical knowledge with practical uses, it also displays the student's research abilities through a practical project. This generally proves very useful when the student enters the job market.
2. The NTUT DUET (Dual Expertise Teaching) Project is designed to assist in the development of students who are well suited to the job market. This is achieved by giving students an early opportunity to come into contact with the professional market, as well as giving students the opportunity to authenticate and apply the professional skills learned in school, thus encouraging them to combine theory and practice.
3. The Last Mile Industry and Academic Integration Program provides students with an opportunity for early contact with the professional market, through practical courses by full time faculty and industry lecturers and professors at NTUT. This increases the professional competitiveness of NTUT students and narrows the gap between academia and the professional sector.
4. NTUT postgraduate programs place an equal emphasis on theoretical knowledge and practical applications. NTUT graduate students choose research topics related to the professional sector, which makes NTUT graduates highly sought-after in the job market.
5. NTUT students are well-equipped with the expertise bestowed upon them by the consolidated training of theories and applications in practice. For years, NTUT alumni/alumnae have been considered the most qualified and trustworthy personnel in major local and international corporations. According to a survey conducted annually among major corporations in Taiwan, in each of the past ten years NTUT has stood out from more than 160 universities in Taiwan and was ranked second to ninth of the best universities cultivating first-rate talents.

CONTINUING EDUCATION AND EXTENSION PROGRAMS

Two different on-the-job continuing education programs (i.e. one weekday evening program and one weekend program) were founded in 1995 and 1998 respectively. They were intended to provide the "Third Educational Highway" as the Ministry of Education puts it, to help career people to improve and strengthen their knowledge and skills required in their jobs. Both programs confer master's and bachelor's degrees or issue credit completion certificates. To create opportunities of advanced continuing education, the university offers various postgraduate courses and provides a strong and thorough consulting service.

The extension programs (including two-years bachelor's programs, master's programs, and special programs) are designed to meet the needs of people working in the Taipei Metropolitan area. Being popular and reputable, the programs enroll graduates who hold a junior college degree or above and have relevant working experience.

The courses offered by our programs tend to be more practical and interdisciplinary. Currently, our programs have offered diverse credit and noncredit courses, training courses entrusted by public and private enterprises, and on-the-job training courses entrusted by various levels of government.



COMPUTER AND NETWORK CENTER

The Computer Center of NTUT was founded in March 1971, and renamed as the Computer and Network Center in August 2007. Originally, its major role was to superintend various kinds of computer equipment used in teaching. Now it has been transformed to serve as the bridge of information interchange inside and outside the campus.

As the whole campus is currently linked with optical fibers and a switch network of ATM OC-12 (622Mbps), the computers of all office units on campus can easily link to the center. Network users can log onto TANet and the internet through a dormitory network, the campus network

or a dial-up connection to make a full use of various resources and services.

The center is well equipped with a diversity of highly efficient workstations, servers, and PCs, including peripherals as well as software. All the PC labs are linked with 100 Base-T Ethernet and well supported by the Windows NT operating system, which renders a satisfactory teaching/learning environment for network and multimedia applications. All the labs are open to the faculty, employees and students during free hours.

STUDENT SERVICES

After entering NTUT, students will be introduced to the campus, and given academic and career guidance through the orientation program. Students can easily get information from the Student Counseling Center, which offers personal and group consultation, psychological tests, special topic speeches, and book loans. With these services, students may understand themselves much more, realize their own capabilities, and adapt themselves successfully to the society.

There are two dormitories, including 1,572 beds in total. Every bedroom is equipped with a telephone, internet service and an air conditioner at one's own expense. In addition, there is a student cafeteria which accommodates 400 people. The Student Self-government Committee is in charge of various affairs related to the management of the dormitories and the cafeteria.

All the students, faculty and staff members are offered such services as health consultation and emergency treatment from the Health Center. Moreover, a huge variety

of activities, including Health Education Programs, Hepatitis A/B Preventive Programs and Dining-Related Sanitation Programs take place regularly to enhance health quality for everyone on campus.

There are various scholarships available for students who perform well at academic activities and need financial aid. There are also financial loans and part-time jobs which could be applied for by students to help them accomplish their studies at NTUT.

To develop students' potential, the university authorities launch all kinds of daily activities to train students to become well-rounded persons. Meanwhile, the Student Affairs Office assists students in holding activities. Through activities, they are encouraged to learn to become healthy, elegant, well-rounded and respectable individuals, and to cherish honesty, cleanliness, politeness, and order. We have a Student Activities Center where many instructors work hard to provide professional guidance to student clubs. From such programs and activities, students can learn how to be a successful and effective leader.



Located in the center of the campus, the library is a four-story building. It occupies an area of 6,500 square meters and has a capacity of 1,088 seats for users.

The library has a collection of over 304,000 volumes, 2,900 periodicals, 28,500 online periodicals, 7,900 kinds of audio-visual materials, 330,000 microfiches, and 224 kinds of CD-ROM, and online materials. The services offered by the library are as follows:

I. Purchasing various kinds of research materials:

The library takes the responsibility to purchase books and periodicals recommended by individual departments and institutes as well as various kinds of reference books. The library also purchases books recommended by individual readers within the budget limits.

II. Providing Open Shelves Service:

All the books collected in the library are on open stack shelves. Readers may enter the stack areas to search for materials.

III. Circulating the books:

1. The faculty, staff, students and alumni have an access to the books collected in the library.
2. Readers are able to borrow books either on the circulation desk or through the self-check system in the library.



IV. Consultation:

1. Answering questions with regard to how to make use of the resources in the library.
2. Holding activities, such as the freshmen library tour.
3. Offering books searching service through the CD-ROM and Internet.

V. Audio-visual services:

Readers can borrow the DVDs, VCDs, video tapes, and CDs from the library. In addition, the library provides multimedia service of video on demand through the intranet and internet.

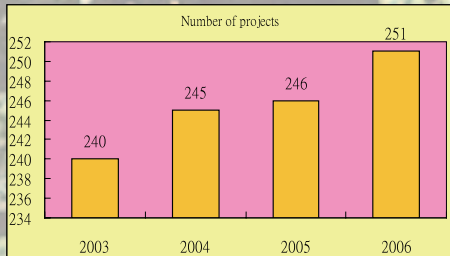


RESEARCH AND DEVELOPMENT

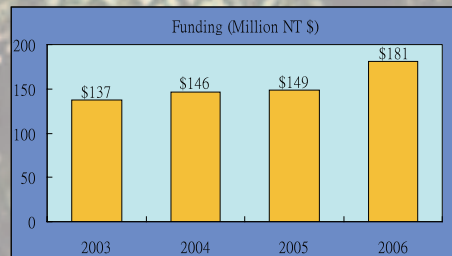
The research and development of the university focuses as much on theory as on practice. The university faculty members are scholars and researchers who combine academic background with professional experiences. Since the school has been upgraded from a junior college all the way to a technological university, its faculty members have been deeply involved in research and development. The number of their research projects sponsored by the National Science Council (NSC), various government sectors, and public as well as private enterprises has increased rapidly in the last few years. Research has become a major component of life within the university. In order to equip our students with up-to-date science and technology, and to help our faculty members become cutting-edge specialists and researchers, persistently conducting and promoting research is quite important. Due to research activities in the university being significant and growing rapidly, the research expenditures of the university were in excess of NT\$400 million in 2006 and increase at the rate of about 15 percent annually. In recent years, the university even subsidizes the journal publication, promotes international academic activities, and develops key research fields with various academic rewards to make the R&D activities more vigorous. Many of the research projects were carried out individually, but now they are more often conducted in an interdisciplinary fashion.

As an entitled “technological university”, the university with the upgraded academic status has to emphasize on the R&D works. This is in line with our vision to become a world-class university. In order to boost research, the university has also taken some steps to elevate research results. The Sunshine-Fund Foundation in the university supports paper publications, international conferences, and outstanding research works.

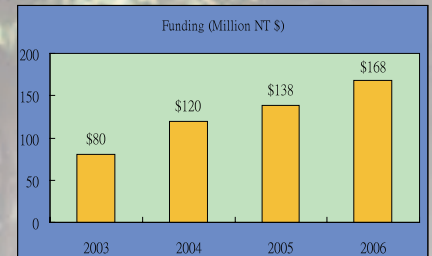
Moreover, the research results of the university have been widely applied to domestic industries. With sound instruments and equipment, the university also provides various kinds of technical services and materials testing to industries. The technical services offered by the university include conducting research projects, holding seminars, and offering training courses and the services entrusted by the Ministry of Education. The university’s faculty members are often invited by enterprises to give speeches, and entrusted by the Ministry of Economics to evaluate the qualification of monopoly rights claimed by enterprises as well. In addition, they accept the requests from enterprises to conduct special case studies, provide professional advice, and develop evaluation systems. Brief overviews of the research conducted are provided in the following figures in terms of different research funding sources.



2003~2006 Research Grants Funded by the NSC



2003~2006 Research Grants Funded by the NSC



2003~2006 Research Grants Funded by Non-NSC Government & Private Sectors

ART CENTER

NTUT has made an enormous effort to promote holistic education. The purpose of the Art Center is to strengthen art education and to integrate art appreciation and practice into the general university curriculum.

The Art Center will acquire resources from government institutions and integrate the following four aspects: education, performance, international interchange, and industry cooperation. Besides, the center will work closely with professors and students to promote Technology Aesthetics.



INTERNATIONAL COOPERATION AND SCHOLARLY EXCHANGE

To promote international cooperation and scholarly exchange, the Office of Research and Development has engaged itself in establishing sisterhood and cooperation with over 60 internationally renowned universities in U.S.A., United Kingdom, Australia, Canada, Korea, Germany, New Zealand, Russia, Ukraine, China, Japan, Turkey, etc.

Since 1997, the university has endeavored to establish a cooperative relationship with academic institutes of non-English speaking countries. Carl Duisberg Gesellschaft, a famous German professional job training institute, has signed a contract with NTUT, and a regular annual scholarly

exchange and cooperation program has been initiated to discuss issues on vocational education and job training held by the government and enterprises.

The university regularly holds Sino-American and Sino-Japanese educational forums to compare notes on various kinds of issues, and provides students with the “Going Abroad and Studying Internationally Exchanging Student Program” to enhance their study experiences as well as broaden their horizons. Besides, it has held international conferences such as IEEE and many cross-strait academic workshops to advance scholarly and cultural exchanges and improve NTUT’s academic reputation.



ALUMNI LIAISON CENTER

The Alumni Liaison Center is to provide a bridge between the alumni all over the world and the university. Our mission is to provide excellent services to our alumni, and at the same time, to promote the development of the university with the assistance from our successful alumni.



JOB PLACEMENT SERVICES

The Job Placement Counseling Division provides job search and career assistance to current students and graduates of NTUT. The division helps students to search for positions in line with their specific interests and needs. The services offered by the division are:

- I. Job-search website: The website offers job listings from enterprises and current labor market information.
- II. On-campus recruitment: The division hosts a group of employers with job opportunities.
- III. Job fairs: The division hosts job fairs in spring annually.
- IV. Career counseling and job search assistance: With the help from enthusiastic faculty members, we offer our students individualized assistance in career development.
- V. Internships: Giving students an overview of occupational fields while providing opportunities to students to develop employment knowledge and skills. The division works collaboratively with allied companies and enterprises to offer students a set of activities which are considered helpful for the student's future employment opportunities.

NTUT is a university with a distinguished past; many of our alumni have worked successfully in industry. Their excellent performance also assists new graduates in obtaining promising jobs. A survey of one

thousand enterprises conducted by the Common Wealth Magazine reveals that the NTUT graduates are enterprise's favorite when recruiting new employees.



INNOVATION AND INCUBATION CENTER

The center provides a nurturing environment, hands-on assistance and a variety of services to start-up enterprises during their first year of development. The center aims to incubate those start-up ventures with prospect and potential, including mechatronic and bio-medical industries. With the joint efforts of our faculty and enterprises in the past 7 years, it is now highly possible to successfully incubate SME.

To promote the collaboration of academic-industry, the university established the center in 1999 to assist start-up entrepreneurs. The objective of the center is to integrate the university's resources, such as professors, laboratories, facilities and space, to assist small and medium enterprises (SME) with various technologies, management, industrial analysis, marketing and financial consultation services.

NTUT has fostered 80 SMEs for the past 7 years. This preliminary achievement includes enrolling up to 110 professors to join the incubation projects, and obtaining 65 NSC projects, 17 Small Business Innovation Research projects, and one Conventional Industrial Technology Development project. The total funds for the incubated enterprises amounted to NT\$ 1,851 millions by 2006.

College of Mechanical and Electrical Engineering



機電學院
College of Mechanical and
Electrical Engineering

<http://www.cc.ntut.edu.tw/~wwwem/english>

- ➔ Graduate Institute of Mechanical and Electrical Engineering
- ➔ Graduate Institute of Manufacturing Technology
- ➔ Graduate Institute of Mechatronic Engineering
- ➔ Graduate Institute of Automation Technology
- ➔ Department of Mechanical Engineering
- ➔ Department of Vehicle Engineering
- ➔ Department of Energy, Refrigeration and Air-Conditioning Engineering



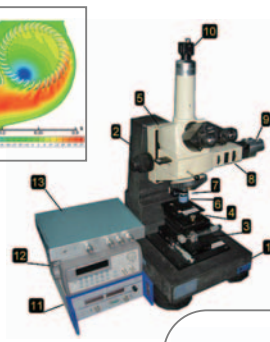
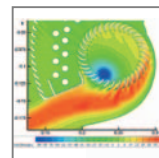
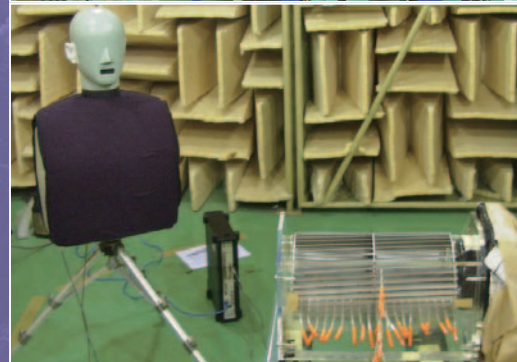
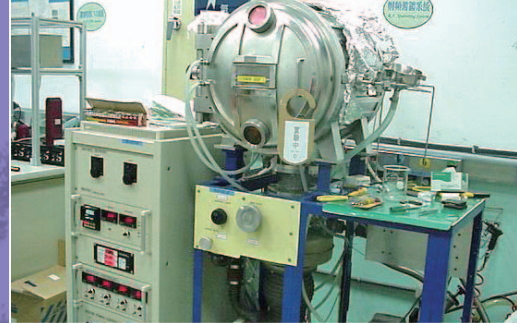
Objectives

- I. To cultivate professional engineers as well as system integration specialists in the areas of mechanical and vehicular technologies, automation, manufacture, energy, refrigerating and air conditioning engineering.
- II. To strengthen academic research, to improve technical research and development, and to raise the technical level of mechanical and electrical technologies.
- III. To develop distinctive research features for the departments and institutes of this college, and to carry out the cooperation between the university and industry through exchange of technical information, joint development of new devices and mutual on-the-job training.
- IV. To cultivate well-rounded engineers by offering them not only professional training but also training in the areas of foreign languages, liberal arts and laws.

Features

There are six graduate institutes and three undergraduate programs in the college. The total number of full-time faculty is 72, and the number of full-time postgraduate students is around 570. Each department in our college provides two different on-the-job continuing education undergraduate programs: a weekday evening program and a weekend program, with 420 and 470 part-time students. In order to provide students with the training of technical integration, our college also offers two interdisciplinary programs, including Automation Technology and Energy Technology.

Each institute in our college also has one on-the-job continuing education master's program. There are about 190 part-time students in these continuing education programs.



GRADUATE INSTITUTE OF MECHANICAL AND ELECTRICAL ENGINEERING

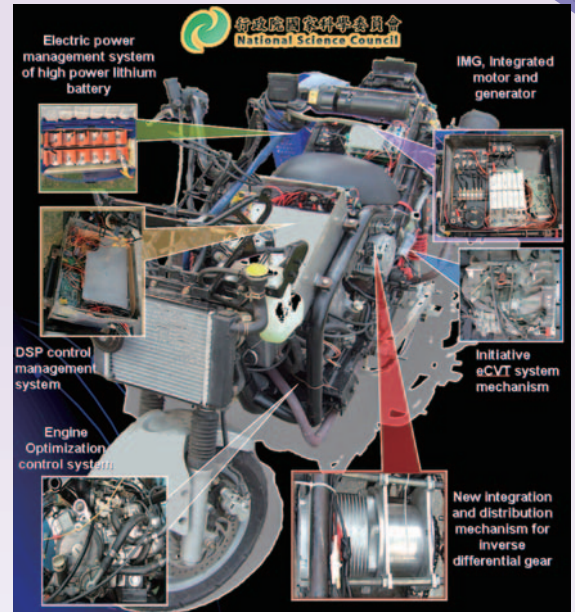
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Objectives

- I. To cultivate advanced research specialists in the areas of mechanical, vehicle, automation, electrical, electronic, energy, refrigeration and air-conditioning engineering.
- II. To enhance academic research, to improve technical research and development, and to raise the technical level of mechanical and electrical technologies.
- III. To integrate the research manpower and facilities in each department and each graduate institute of this college, so as to conduct interdisciplinary research.

Features

- I. To integrate the research and features of all the graduate institutes in this college.
- II. To expand and strengthen research in each graduate institute of the college in order to develop applied technologies in depth.
- III. To emphasize interdisciplinary training to broaden students' view of mechanical and electrical technologies.



GRADUATE INSTITUTE OF MANUFACTURING TECHNOLOGY

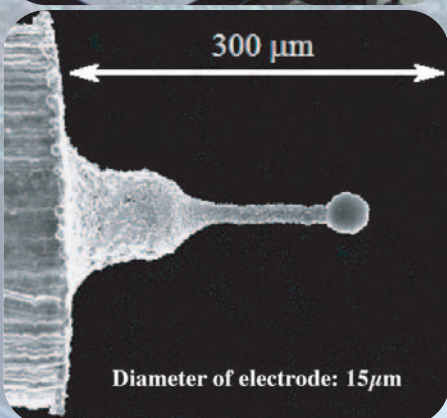
<http://www.cc.ntut.edu.tw/~wwwmt/english>

Objectives

The objective of this institute is to promote research and development of manufacturing technology and to cultivate high-level engineers in practical advanced manufacturing technology.

Features

- I. The main research and development areas of this institute include advanced manufacturing processes, precision machinery and manufacturing equipment, metrology and engineering analysis, and advanced manufacturing automation and e-manufacturing technology. The backbone of our manufacturing technology is the development of related manufacturing processes and equipment for various emerging industries such as semiconductor, photonics, and 3C industry.
- II. This institute engages in industry-oriented research. Integrated design ability, state-of-the-art manufacturing technology, and hands-on experiments are emphasized in its curriculum in order to lay a solid foundation for students and prepare them for a highly competitive manufacturing environment.
- III. This institute endeavors to strengthen its interaction with the manufacturing industry. By utilizing its facilities, manpower, and practical technology developed from its research works, this institute is willing to provide consultation and problem-solving skills in the area of manufacturing technology, so as to further enhance the relationship between this institute and industry.



Objectives

In response to prosperous development in semiconductor, technical information, electronics, communication, and electro-optical, biomedical, precision and electromechanical industries, the goal of the institute is to cultivate advanced manpower of high technology with specialty in mechatronic engineering.

The institute has full-time master's, part-time master's, and doctoral programs to train excellent specialists in high technology. These programs aim at cultivating high-tech manpower specializing in multiple fields, including mechanical engineering, electrical engineering, electronic engineering, and information engineering.

The objectives of the institute are:

- I. To meet the demands of national economic development and the requirements of the industry.
- II. To promote research and development in mechatronic technology, so as to serve the industry.
- III. To provide the industry the advanced specialist training in automation and electromechanical engineering, so as to promote lifelong learning.
- IV. To establish a technological database and a technological center of mechatronic technology.

Features

The institute was founded in 1996 and consists of two divisions, the micro-electro-mechanical control division and the mechatronics design division. As for the part-time master's program, there are two tracks, namely, mechatronic technology and mechatronic research and developing management. This institute cooperates with the Department of Electrical Engineering and the Department of Electronic Engineering to develop research on the design of machinery, mechatronic engineering, automation design and practice, micro-electro-mechanical components, and the electro-mechanical and electronic products.

The research themes of the institute are:

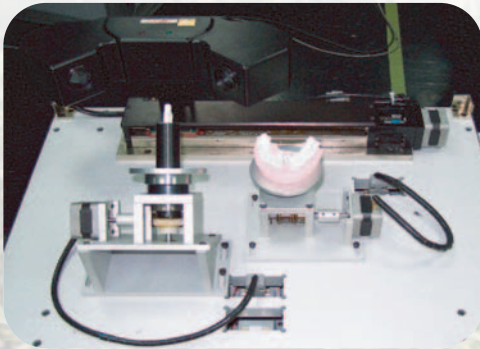
- I. Mechatronic technology including mechanism system technique, electronic system technique, control system technique, mechatronic system technique, machine vision and image process, automated optical inspection technique, and interactive recreation equipments.
- II. Micro-electro-mechanical optical systems including microsystem design integration, micromanufacturing and machining technique, micro-sensors and micro-actuators, electro-optical precision measurement, micro-thermal fluid technique, microsystem packaging and testing, micro-electro-mechanical radio frequency communication components, radio frequency communication IC design, micromold, and micro-injection.
- III. Precision machinery, including precision mechanism and dynamic analysis, structural vibration and noise control, precision transmission design, precision driving system, precision machine design and control, and rapid prototype technique.
- IV. Semiconductor and biochip technique including semiconductor component design, advanced IC process technique, IC packaging technique and testing, and production of DNA chips, protein chips, and biochips.
- V. Advanced thin film and nanometer technique including coating engineering, diamond film, surface analyzing technique and application, nanometer measuring technique, nanometer materials technique, nanometer thermal fluid technique, nanometer biomedical technology, nanometer process technique, nanometer silicon component technique, nanometer mechanical/electrical technique, and nanometer packaging and testing.
- VI. Mechatronic research and developing management including long-term research of mechanical/electrical technology, maintenance and management of intellectual property for mechanical/electrical technology, invention of new mechatronic technique, and establishment of knowledge economy for mechatronic technique.

GRADUATE INSTITUTE OF AUTOMATION TECHNOLOGY

<http://www.cc.ntut.edu.tw/~wwwatc/english>

Objectives

The main objective of this institute is to integrate engineering and software technology and to raise the technical level of automation to meet the requirements of modern industrial development.



Features

In order to cultivate automation engineers required by the modern industrial society, this institute focuses on the following two fields:

- I. Mechanical related automation technology: To integrate the computer technology and mechanical design, this institute lays emphasis on the following research areas: automatic optical inspection, machine vision and image processing system, intelligent robots, design optimization, dynamic model and simulation design, computer aided engineering analysis, computer-aided design and manufacture, and computer-aided engineering test.
- II. Electrical and electronic engineering related automation technology: In order to promote the technique of automation engineering design, creating a friendly and intelligent interface between human and machine is very important. To meet this requirement, the institute devotes itself to intelligent home appliance technology, embedded real time system design, intelligent agent technology, intelligent network SCADA systems, distribution system automation, and intelligent techniques (expert system, fuzzy control, neural network, and soft computing system).

DEPARTMENT OF MECHANICAL ENGINEERING

<http://www.cc.ntut.edu.tw/~wwwme/english>

Objectives

The department aims at assisting the establishment of domestic precision mechanical industry and cultivating manpower specializing in design, manufacturing, utilization and maintenance of precision machinery and in integration and control of mechanical, optical and electrical systems. The objectives of the department are:

- I. To cultivate specialists and engineers with expertise in advanced theories and applied skills of mechanical and electrical engineering.
- II. To offer training which combines foreign languages, liberal arts, laws, and management.
- III. To elevate the level of mechanical and electrical research and to improve the ability of developing new engineering technology for the industry.

Features

The department pays equal attention to both fundamental theories and their applications. We promote the education and research related to design, thermodynamics and hydrodynamics, manufacturing, mechanics, materials, control and mechatronics engineering, and manufacturing technology.

The two main research and development divisions of this department are the Mechatronics Engineering division and Manufacturing Technology division. The former focuses on micro-electromechanical control and mechatronics design; the latter puts an emphasis on machinery equipments, process exploration, and development of new materials required for manufacturing industrial products.

The department has master's and doctoral programs in mechatronics engineering and manufacturing technology. We endeavor to cultivate advanced specialists to research and develop mechatronic engineering and manufacturing technologies.



DEPARTMENT OF VEHICLE ENGINEERING

<http://www.cc.ntut.edu.tw/~wwwve/english/>

Objectives

The aim of the department is to cultivate professional engineers for vehicle-related industries. Our teaching and research focuses include vehicle component development, design, manufacturing and assembly, marketing management, maintenance service, driving safety and accident reconstruction technologies. Students can work on their preferred topics and build up professional skills in the development of advanced vehicle components, in sales and service management or in vehicle driving performance and safety analysis.

Features

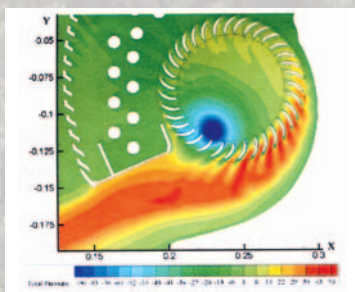
The department lays emphasis on engineering theory, practical knowledge and the implementation of special projects. The major research topics of our graduate institute are:

- I. Advanced power technology: hybrid power, restriction of engine exhaust gas, new fuel, motor driving technology, and energy management.
- II. Technology for improving safety and maneuverability performance: structure safety, collision avoidance system, ABS system, driving control, four-wheel drive, four-wheel rotation, and active suspension control.
- III. Noise and vibration prevention technology: engine, transmission and exhaust system, reduction of train noise and vibration, and vehicle dynamic simulation and vibration suppression.
- IV. Intelligent vehicle: collision avoidance system, turn-over prevention system, vehicle lane keeping system, auto-pilot and auto parking assistant system, GPS, and car alarming system.
- V. Accident reconstruction technology: vehicle collision dynamics, vehicle maneuverability, and vehicle damage simulation.



Objectives

- I. To integrate the engineering practice of refrigeration, air-conditioning and energy into theory so as to produce high caliber engineers for the industry.
- II. To provide professional training to assist students in obtaining professional licenses.
- III. To design a curriculum that can help students obtain a certificate of minor in Energy Engineering program.
- IV. To establish a manpower and information center for refrigeration and air-conditioning research, and to collaborate with international societies in related fields.
- V. To develop leading technologies in the fields of energy and refrigeration, with an emphasis on the following areas: energy technology, cryogenic and low temperature system, air-conditioning energy conservation, clean room technology, heat driven air-conditioning system, and fire and smoke control.



DEPARTMENT OF ENERGY, REFRIGERATION AND AIR-CONDITIONING ENGINEERING

<http://www.cc.ntut.edu.tw/~wwwar/english>

Features

- I. The department equips students with a broad base of knowledge in mechanical, electrical and engineering technologies, so as to build a solid foundation for conducting state of the art research.
- II. Since the issue of global resources and energy is one of the government's main concerns regarding sustainable development, this department incorporates energy technology into its curriculum to broaden the academic scope and to meet the society's need.
- III. The emphasis is put on the collaboration with industries, and on training students to meet industrial needs.
- IV. We provide students with opportunities to get involved in international technical activities offered by the American Society of Heating, Refrigerating and Air-conditioning Engineering.
- V. Major research facilities include computer software for thermal and flow dynamics (Fluent, etc.) and dynamic energy simulation of buildings, cryo-freezers, CNC particle counters, laser particle counters, three-dimensional ultrasonic speedometers, clean rooms (class 1, class 1000), thermal chambers, mini-environment test chambers, SMIF, FOUP, ultrasonic flow meters, gas detectors, electric power analyzers, etc.
- VI. Our distinctive laboratories include clean air technology laboratory, advanced refrigeration technology laboratory, food refrigeration and low temperature laboratory, thermal system laboratory, vacuum and cryogenic laboratory, fundamental refrigeration laboratory, energy and thermal-fluid laboratory, and air-conditioning and flow simulation laboratory.

College of Electrical Engineering and Computer Science

<http://www.cc.ntut.edu.tw/~wwweecs/english>

- ➔ Graduate Institute of Computer and Communication Engineering
- ➔ Department of Electronic Engineering
- ➔ Department of Computer Science and Information Engineering
- ➔ Department of Electro-Optical Engineering
- ➔ Department of Electrical Engineering

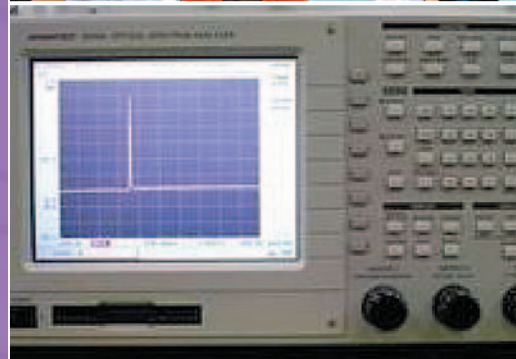


Objectives

- I. To provide students with a sound and solid knowledge in the professional disciplines of electrical engineering and computer science, along with the required supporting knowledge of mathematics, science, and liberal education.
- II. To equip students with the skills needed in designing experimental projects, solving problems, and organizing and presenting information effectively.
- III. To train our students to become future leaders in academia, government, and industry with a deep awareness of ethical responsibilities to our profession and to society.
- IV. To emphasize multidisciplinary and international activities in both teaching and research.
- V. To maintain a friendly, supportive and diverse environment so as to help students and faculty members to achieve their best.

Features

Our Electrical Engineering program was established in 1912, and it is one of the electrical engineering programs first established in Taiwan. Today, the College of Electrical Engineering and Computer Science (EECS) is home to four departments, 97 faculty members and more than 2,700 students. About one quarter of all NTUT students are enrolled in this college. The four academic departments under this college are Departments of Electrical Engineering, Electronic Engineering, Computer Science and Information Engineering, and Electro-Optical Engineering. Each of them offers Ph.D., Master of Science (MS) and Bachelor of Science (BS) degrees. We emphasize quality in teaching and research. All of our undergraduate and graduate programs will soon be accredited by the Institute of Engineering Education Taiwan (IEET), recognized by the Washington Accord. These programs provide students with knowledge of fundamental principles and innovative technologies through a rigorous curriculum of theory and application. In particular, the graduate program has over 100 Ph.D. students and about 700 master students. EECS is a broad and expanding field. We have strong research and industrial programs. The faculty members are actively developing technologies ranging from devices to systems, from software to hardware, and from algorithms to implementation.



GRADUATE INSTITUTE OF COMPUTER AND COMMUNICATION ENGINEERING

<http://www.cc.ntut.edu.tw/~wwwcce/english>

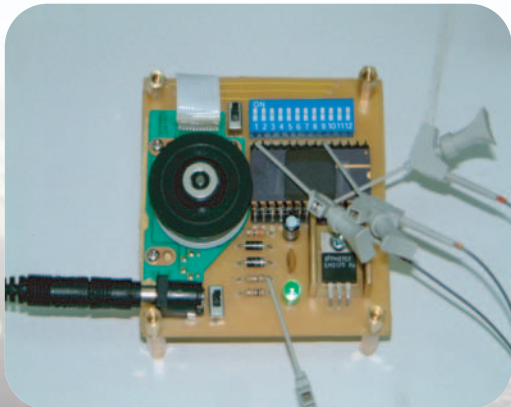
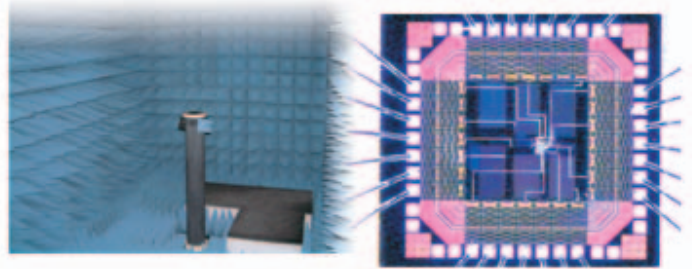
Features

This institute concentrates on the development, integration and application of the following four areas:

- I. Computer engineering: software, hardware, firmware, human interface, microcontroller, micro-electronic application, information application, embedded system, image processing, and electro-medical engineering.
- II. Wireless communication: spread spectrum communications, mobile communications, data communications, signal processing, information theorem, error-code correction, speech recognition, and network application.
- III. Electro-wave and electro-optic: high-frequency circuit and measurement, RF integrated circuit, antenna design and measurement, electro-wave propagation, high-speed digital transmission techniques, microwave IC design, microwave components, electro-optics system, optic communication, and optic-fiber cable TV.
- IV. Integrated circuit and systems: mixed-signal chip design, digital communication chip design, IP design, analog IC design, electronic design automation, hardware-software co-design, embedded system, and SOC platform design.

Objectives

This institute focuses on the integration of computer and communication technologies. It is oriented toward the development of practical technologies to meet the needs of the industrial specialists in computer and communication engineering, as Taiwan is developing its Asia-Pacific Operation Center as well as its national information infrastructure. It will also promote substantial cooperation between the university and the industry.



DEPARTMENT OF ELECTRONIC ENGINEERING

<http://www.cc.ntut.edu.tw/~wwwen/english>

Objectives

The department aims to develop specialized knowledge in electronic engineering and to cultivate electronic specialists. It offers courses with equal emphasis on theory and practice in order to develop students' knowledge and skills in electronic designs, manufacturing, and applications. Every graduate of this department is expected to acquire professional skills and possess creative ability.

Features

The instruction of this department focuses on computer engineering (including hardware/software, multimedia, micro-electronics, electro-medical, embedded system, and VLSI design) and communication engineering (including electromagnetic waves, electro-optics, mobile communication, and signal processing). It stresses the integration and application of these subject areas.



Objectives

- I. To assist our faculty members in conducting cutting-edge research and technology developments in multimedia systems, network systems, and software systems.
- II. To cultivate advanced IT professionals to meet the strong demands of the industry, government and other sectors.
- III. To serve the computer and information industry through partnerships.



Features

This department focuses on three major research areas: multimedia systems, network systems, and software systems. Via projects, internships or scholarships, we provide students with many research and enterprise-collaboration opportunities. We also seek to establish close partnerships with industry leaders through various types of training, research and development projects.

The department commits itself to teaching excellence. Many of our faculty members have obtained distinguished teaching awards honored by the university. Students can obtain extensive training with a rigorous curriculum covering three main domains: software and hardware systems, languages, and mathematics and algorithms. Theoretical knowledge and engineering skills are equally emphasized.





Features

Optoelectronics is an integrated study of optics, mechanics, electronics, electrical engineering, and material science. This subject has been widely applied to such fields as fundamental science, industry, business, national defense and medical treatments.

The department put emphasis on the following research areas:

- I. Optoelectronic Devices: We focus on new product technology in the fields of optical information control, telecommunications and electro-optical semiconductors.
- II. Applied Technology of Photonics: We mainly focus on two relevant applied skills. One is the skill in optical signals, which are required in industrial testing, communications, information control, and medical treatments. The other is the skill in optical energy, which is immensely used in laser reprocessing manufacture and medical treatments.

Our current research and development themes are: optoelectronic materials and devices, optical communication, optical information (including electro-optical system design), optoelectronic engineering, flat panel display, and biophotonics.

Objectives

This department aims to equip students with adequate knowledge of electro-optical theories, and to help them master skills required in this field and become well-trained engineers with the aim of meeting the needs of the industry-based business in Taiwan. All the courses focus on the indispensable skills in the photonics. Our objectives are:

- I. To develop new technologies, components, and systems.
- II. To cultivate advanced technologists with courses of theory, design, and experiment.
- III. To cultivate advanced specialists to meet the requirements of the industry.

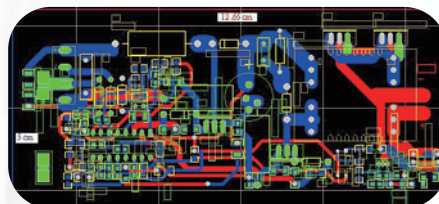
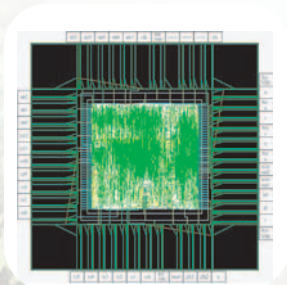


Objectives

In response to the advancement in Taiwan's economic and industrial development scheme, the main objectives of this department are to equip students with professional knowledge and expertise in electrical engineering, and to provide high-quality teaching, with the aim of producing cutting-edge electrical engineers.

Features

The department offers a variety of B.Sc., M.Sc., and Ph.D. programs in Electrical Engineering. Currently, there are five main research clusters within the Department: power system engineering, power electronics, control systems, communication systems, and computer systems. Our courses and research place a strong emphasis on practical training, senior projects, and collaboration with the industry. The department also offers a wide range of continuing education courses to practicing engineers and part-time students, who can pursue a B.Sc. or M.Sc. degree in Electrical Engineering.



College of Engineering

<http://www.cc.ntut.edu.tw/~coeng/English/>

- ➔ Graduate Institute of Engineering Technology
- ➔ Graduate Institute of Civil and Disaster Prevention Engineering
- ➔ Graduate Institute of Organic and Polymeric Materials
- ➔ Graduate Institute of Environmental Engineering and Management
- ➔ Graduate Institute of Biotechnology
- ➔ Department of Chemical Engineering and Biotechnology
- ➔ Graduate Institute of Chemical Engineering
- ➔ Graduate Institute of Materials Science and Engineering
- ➔ Graduate Institute of Mineral Resources Engineering
- ➔ Department of Materials and Mineral Resources Engineering
- ➔ Department of Civil Engineering
- ➔ Department of Molecular Science and Engineering



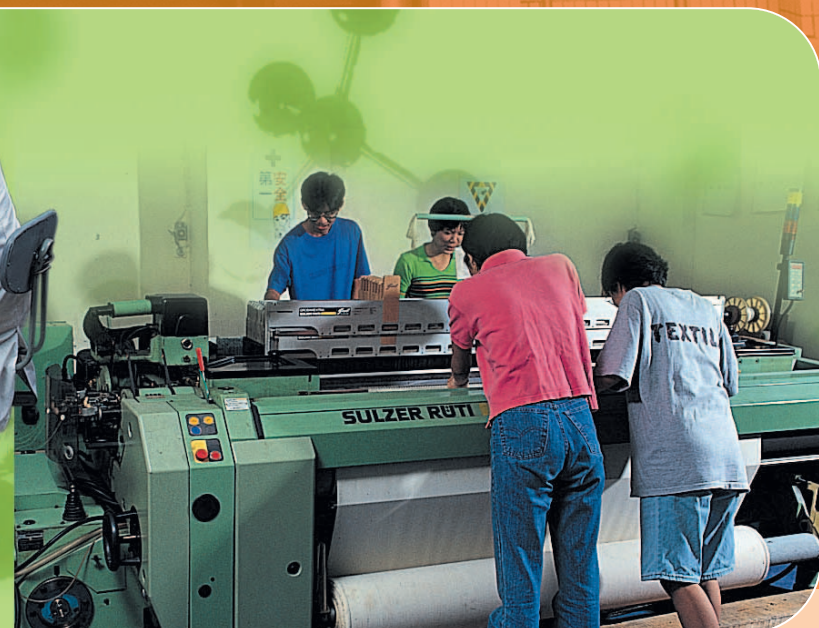
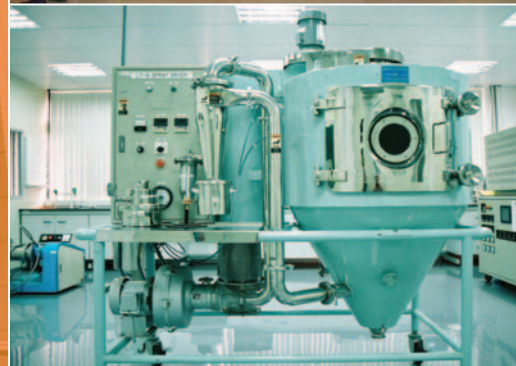
Objectives

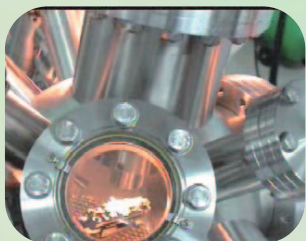
- I. To carry on our excellent tradition of integrity, simplicity, professionalism and diligence.
- II. To cultivate advanced specialists with both theoretical and practical skills in civil and disaster prevention engineering, material and mineral resources engineering, organic polymeric engineering, chemical engineering, environmental engineering and management, and biotechnology areas.
- III. To develop unique characteristics of our departments and institutes, and to cooperate closely with the industry through technological interaction to develop engineering specialists and new products.
- IV. To help students keep abreast of current international views as regards engineering fields.
- V. To comply with the government's policy of sustainable development, and to foresightedly develop new areas of research.
- VI. To incorporate world trends into our education to train construction specialists with environmental morals, wisdom and virtue to meet the national construction needs.
- VII. To emphasize both human sciences and technology, and to improve students' computer and language skills.
- VIII. To apply academic research and technological developments to elevate the level of engineering technology of our country.

Features

The college offers eight graduate institutes--the Graduate Institutes of Civil & Disaster Prevention Engineering, Materials Science & Engineering, Chemical Engineering, Organic & Polymeric Materials, Environmental Planning & Management, Biotechnology, Mineral Resources Engineering, and Engineering Technology. Our undergraduate programs consist of the Departments of Civil Engineering, Chemical Engineering & Biotechnology, Materials & Mineral Resources Engineering, and Molecular Science & Engineering. The total number of our full-time faculty is 106. The eight institutes within the college have full-time and part-time master programs and doctoral programs with a total of 505 master students and 120 doctoral students enrolled in the academic year of 2006. Our four departments offer 4-year and 2-year programs having a total of 1,569 students. In addition, the four departments also have 2-year weekday evening programs with 517 students as well as weekend programs with 281 students.

To meet the needs of our teaching and research, there are various instruments and facilities in each department to provide students with adequate training and the capacity for academic research. This college continually cultivates practical, hardworking and vigorous specialists to meet the demands of economic construction and industrial development of Taiwan in the future. As for academic research, this college has laid a firm foundation. We continually elevate the level of research, and enhance the interaction between academic communities internationally. Concerning industrial service, this college enhances continual cooperation between the university and industry to fulfill engineering education and research achievement. In order to conduct more advanced academic research, this college cooperates with other research institutes regularly, and strives to engage in technological developments for related significant infrastructures in Taiwan so as to become a first-class academic research institute.





GRADUATE INSTITUTE OF ENGINEERING TECHNOLOGY

<http://www.cc.ntut.edu.tw/~wwwet/english>



Objectives

- I. To cultivate advanced specialists with both theoretical and practical skills in civil and disaster prevention engineering, material and mineral resources engineering, organic polymeric engineering, chemical engineering, environmental engineering and management, and bio-technology.
- II. To provide students with superior training in their chosen fields of study, to enhance their development of creativity, critical thinking and global outlook, and to prepare them for lifelong learning.
- III. To pursue knowledge in both fundamental and applied areas, and to collaborate closely with the industry to promote technological innovation and economic development.
- IV. To integrate the research manpower as well as the facilities in each department and graduate institute of the College of Engineering to develop interdisciplinary research.
- V. To comply with the government's policy of sustainable development, and to incorporate world trends into our education to train construction specialists with environmental morals, wisdom and virtue to meet the national construction needs.



Features

The graduate institute supported by the departments and graduate institutes in the College of Engineering offers doctoral programs. The institute has seven divisions. The major research areas are as follows:

- I. Civil and disaster prevention engineering, including structure, materials, geotechnical engineering, architecture, transportation, and disaster prevention management.
- II. Materials science and engineering: electronics and bio-ceramics, thin films material, nano-structured material, semiconductor, steel and iron materials, material casting, powder metallurgy, and ceramics.
- III. Organic polymeric engineering: organic materials, polymer materials, opto-electronic polymer materials, bio-medical materials, and aero-space materials.
- IV. Chemical engineering: separation process, nano-material and nano-technology, fine chemicals, electrochemistry, cleaner production, semiconductor manufacturing, and process engineering.
- V. Environmental engineering and management: environmental engineering, water resource engineering, environmental management, and resource recovery.
- VI. Bio-technology: bio-chemical engineering, gene engineering, and bio-information.
- VII. Mineral resources engineering: synthesis and application in mineral materials, solid waste resources recycling and reutilization, application of engineering geology, and rock mechanics in geo-technical engineering.



Objectives

- I. To accumulate knowledge in construction and disaster prevention and to cultivate highly qualified professionals in these areas.
- II. To study causes of disaster, disaster prevention measures, and reconstruction technologies.
- III. To establish a leading research institute of civil and disaster prevention engineering.



Features

This institute emphasizes the development of practical technologies. In the past few years, in order to meet the needs of the society, we have been integrating faculty members with various expertise to form research teams to study such subjects as debris-flow prevention, structure seismic retrofitting, post-disaster spatial analysis, environmental protection, hillside hazard mitigation, construction safety, planning management, and supporting system of disaster prevention. Currently, our main focus is on consolidating and strengthening the research projects conducted by our research teams. We will then cooperate with scholars and experts in relevant fields to explore new research areas. Our long-term goal is to become a leading institute in civil and disaster prevention engineering in Taiwan.



GRADUATE INSTITUTE OF ORGANIC AND POLYMERIC MATERIALS

<http://www.cc.ntut.edu.tw/~wwwiopm/english>



Objectives

Excellent polymer research is the key factor in promoting the optoelectronic industries in Taiwan. In order to achieve this goal, this institute is devoted to elevating the research in polymeric materials. A close link with the industry for research cooperation and development is one of its unique characteristics. The goal of the institute is not only to make students strive for academic excellence but also to provide postgraduate students with a solid training in the organic and polymeric industry.

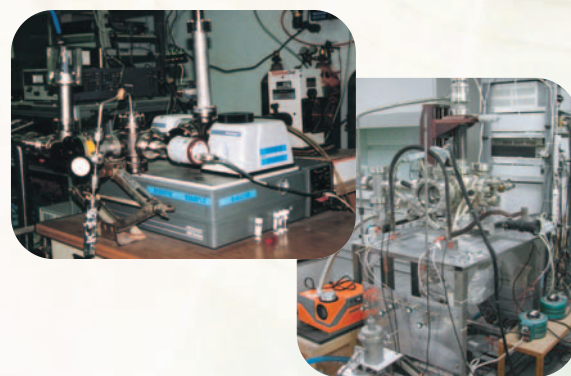


Features

The Institute focuses on the following three fields of study:

- I. Organic materials in opto-electronics and fuel cells applications: light emitting diodes, low K materials, nanometer materials, dyes for solar cell, and dyes for ink-jet printing.
- II. Organic materials in aerospace applications: composite materials, flame retardant materials, near IR absorbers, high strength fiber, and plasma technology.
- III. Organic materials in bio-medical applications: biodegradable polymer, dialysis membrane, nontoxic dyes and pigments, super-absorbing materials, biomedical non-woven materials, biosensors, biochips, and biosynthetic technology.

The institute currently has 12 research laboratories equipped with many state-of-art instruments. We will offer the best opportunities for our students who desire to understand the beauty of organic materials.



GRADUATE INSTITUTE OF ENVIRONMENTAL ENGINEERING AND MANAGEMENT

<http://www.cc.ntut.edu.tw/~wwwiepm/english>



Objectives

- I. To promote the education of environmental engineering and management, and to train students to become outstanding high-tech engineers.
- II. To conduct research on innovative environmental technologies to solve global environmental problems, and to meet the requirements of environmental sustainability.
- III. To conduct research on systematic management, including practical auto monitoring and computerized planning, with an aim to create environmental benefits for current and future generations.



Features

Striving and realization are the essential educational characteristics of this institute. Based on the in-depth engineering background, the institute offers a series of education programs, which cover the following fields:

- I. Pollution prevention and reduction.
- II. Resources recycling and industrial ecology.
- III. Systematic civil and environmental management.

Apart from general courses of civil and environmental engineering, some specialized topics are also covered, such as the environmental geographic system, computerized planning, sustainable development indicators, and the system of integrated environmental management.

The aim of this institute is to advocate a life-suitable environment. Therefore, all courses provided are related to environmental sustainability. Our courses are intended to increase students' knowledge for conducting relevant research, and to prepare them for upcoming jobs.





GRADUATE INSTITUTE OF BIOTECHNOLOGY

<http://www.cc.ntut.edu.tw/~wwwbio/english>

Objectives

The goal of our institute is to provide an excellent environment and faculties for practicing biotechnology-based technologies and training industrial personnel. We emphasize the balance of theory and practice as well as independent research ability.

Features

Our research interests are as follows: genetic and protein engineering, protein chemistry, applied microbiology, biomaterials, biosensor, biomolecular simulations, tissue engineering, and biomedical engineering. Research funding and experimental facilities are expanded and strengthened rapidly. Currently, we have seven faculty members, six of whom hold Ph.D. degrees. There are many advanced instruments and facilities in our institute, including circular dichroism (CD), atomic force microscopy (AFM), scanning electron microscopy (SEM), FTIR, and electron spectroscopy for chemical analysis (ESCA). We also take the responsibility of offering basic biology courses for most of the NTUT students. Currently, both master's and Ph.D. programs are offered.



DEPARTMENT OF CHEMICAL ENGINEERING AND BIOTECHNOLOGY

<http://www.cc.ntut.edu.tw/~wwwch/english>

Objectives

The goal of our department is to build up on the solid background in chemical and process engineering a bridge between the new concepts involved in nanotechnology, biotechnology, and the process technology needed to turn them into practical applications.

Features

Based on the current trends and demands of Taiwan's industries, our department puts an emphasis on the application of relevant chemical engineering theory in biotechnology, nanotechnology, special chemical products, pollution prevention, and high-tech. materials. In addition, it aims to develop key technologies for pollution-free production processes.

The faculty members of the department have demonstrated strengths in chemical engineering and biotechnology. We provide courses related to bio-system and chemical-system, from the design and synthesis of molecules up to the process technology of mass-production. The department's research interests cover functional and bio-materials, membrane transport and separation technology, nano-composite materials, electrochemistry, environmental colloids and bio-molecular interfaces, computational fluid dynamics, electro-analysis and bio-electrochemistry, polymer processing, cleaner production technology, applied microbial technology, molecular biotechnology, biochemical engineering and molecular biology, systems biology, and nano-optoelectronic systems.

The department currently consists of 35 faculty members, 5 professional staff members and 6 teaching assistants.



GRADUATE INSTITUTE OF CHEMICAL ENGINEERING

<http://www.cc.ntut.edu.tw/~wwwch/english>

Objectives

The graduate program of our institute provides an excellent environment and facilities and emphasizes a balance of theory and practice as well as the development of independent research ability. The instructional focus of the institute is upon specialized knowledge of chemical engineering, biotechnology, nanotechnology, energy-related materials, fine chemicals for semiconductor, separation technology, cleaner production, electrochemical engineering, polymer materials, process engineering, catalyst and reaction engineering, and environmental engineering.

Features

Thesis-writing and seminar courses are required in this institute. In addition to core courses related to process engineering, the institute offers elective courses and research in the areas of transport phenomena, polymer materials, semiconductor materials, nanomaterials, biomaterials, optoelectronic materials, separation technology, biotechnology, biochemical process, fine chemicals, cleaner production, environmental protection and pollution prevention, electrochemistry, phase equilibria, thermophysical property, molecular interface technology, and process engineering.

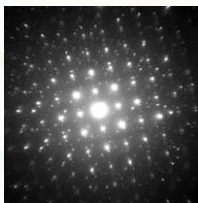
The graduate institute has laboratories equipped with special instruments. Our faculty members have set up distinctive laboratories based on their research interests, including the functional and bio-materials lab., thermophysical property lab., membrane transport and separation technology lab., nanocomposite materials lab., electrochemistry lab., environmental colloids and biomolecular interfaces lab., computational fluid dynamics lab., electroanalysis and bioelectrochemistry lab., EMO nanomaterials lab., flame-retarded materials lab., polymer process lab., cleaner production technology lab., applied microbial technology lab., molecular biotechnology lab., biochemical engineering and molecular biology lab., systems biology lab., applied chemistry lab., electroless copper plating lab., nano-optoelectronic materials lab., material processing lab., nano-materials lab., crystallization technology lab., biomaterials and surface engineering lab., and protein chemistry lab. In addition, the institute consolidates several precision instruments for thermal analysis, chemical analysis, and material characterization, including SEM, AFM, FTIR, DLS, RM, LS, CD, TGA, and ESCA. The laboratories provide services to all our faculty members and students to meet their research and teaching needs.

GRADUATE INSTITUTE OF MATERIALS SCIENCE AND ENGINEERING

<http://www.cc.ntut.edu.tw/~wwwmm/english>

Objectives

The institute emphasizes on both traditional and contemporary materials science and engineering. We provide students with core concepts in materials processing, properties and characterization, and an excellent environment to pursue advanced research related to new developments and novel applications in materials science and engineering. We also work to establish a close relationship with industry. Our students are trained to master effective skills in communication and leadership.



Features

Our faculty members show their research strengths in the following three areas: electronic ceramics, bio-materials, and metallic materials for electronics. Research in the field of electronic ceramics focuses on dielectric thin film, nano-fluorescent powder, fuel cell, and solar cell. Research in the area of bio-materials focuses on surface treatment of bio-materials, nano-bio technology, and processing of bio-materials. Packaging in electronics and optical electronics, applications of metal in semiconductors, and amorphous metal are the main research areas of metallic materials for electronics. The institute strives to provide students with a range of flexible plans of research and advanced knowledge of development.

GRADUATE INSTITUTE OF MINERAL RESOURCES ENGINEERING

<http://www.cc.ntut.edu.tw/~wwwimre/english>

Features

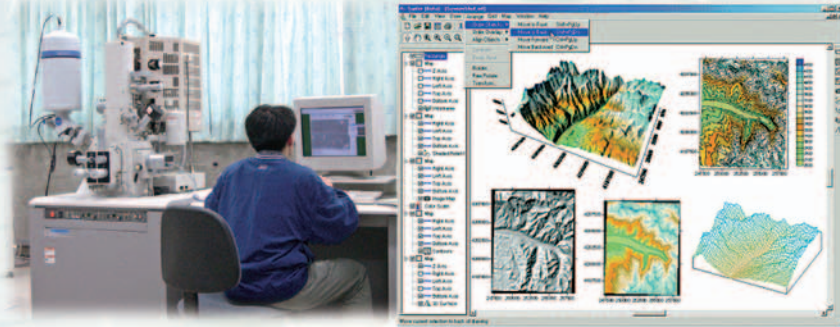
The research of the institute has gone beyond classical mining or mineral processing, and has been oriented towards various interdisciplinary and specialized studies. We emphasize practical aspects of new technology in natural resources utilization, and also devote to exploring creative solutions for global resources development and environmental sustainability. The institute encompasses diverse research interests in the following three fields:

- I. Raw materials and mineral resources reutilization.
- II. Synthesis and application of advanced materials.
- III. Applied geology and geotechnical engineering.

Objectives

Our postgraduate programs focus on multidisciplinary fields of study and are designed to provide both career-oriented skills and academic research.

- I. To develop innovative technologies to reutilize various global resources.
- II. To study advanced knowledge of materials science in synthesis, characterization, and exploring further applications.
- III. To develop new research topics and to train students to face challenges in their future careers.



DEPARTMENT OF MATERIALS AND MINERAL RESOURCES ENGINEERING

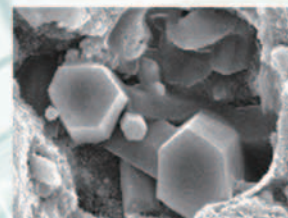
<http://www.cc.ntut.edu.tw/~wwwmm/english>

Objectives

The department aims to produce highly qualified graduates through an educational program that fosters excellence. Students will be taught to realize their ethical and practical responsibility, and will receive both in-depth and broad knowledge. There are two divisions in this department: the materials engineering division and the mineral resources division. The former integrates science and engineering principles relevant to all the major classes of materials in the context of processing, structure, properties, characterization and selection; the latter combines geology and engineering for mineral exploration, exploitation and recycling. Students of the department will be able to have effective interactions with external communities through industrial collaborations and educational outreach.

Features

The courses provided cover mining, manufacture, application, and recycling of materials. Programs in the material engineering division specifically focus on refinement, synthesis, processing, properties, structure and applications of metals, ceramics, polymers and semiconductors. Courses of various material categories are offered to enhance students' research and development capability. The mineral resources division emphasizes mineral processing, applications, and crystal synthesis. Core courses including geological engineering, mineral processing and recycling, and synthesis of materials are provided.



DEPARTMENT OF CIVIL ENGINEERING

<http://www.cc.ntut.edu.tw/~wwwce/english>

Objectives

- I. To establish favorable cooperative relationships with the construction industry.
- II. To apply information technologies to the education of civil engineers.
- III. To strengthen educational training in construction and environmental protection so as to cultivate highly qualified disaster prevention specialists and to meet the future needs of public construction.

Features

This department aims to cultivate civil engineers who can accomplish the work of planning, investigating, testing and drawing, designing, constructing, examining, and managing engineering projects. Students are expected to be able to conduct academic research and to elevate public construction technologies.

DEPARTMENT OF MOLECULAR SCIENCE AND ENGINEERING

<http://www.cc.ntut.edu.tw/~wwwmse/english>

Objectives

- I. The department emphasizes on both teaching and research in the areas of molecular science and engineering. The goal is to prepare students for advanced study of molecular science and molecular engineering to equip them with proficiency both in theory and practice.
- II. Organic, polymeric, and high added-value textile materials have been identified as our three major themes in both teaching and research.
- III. In order to be in tune with the development of science and technology in Taiwan, the following areas are also emphasized: biotechnology, nanotechnology and opto-electronic technology.
- IV. To hold integrated research activities with other research institutes and departments in related disciplines, such as Taiwan Textile Research Institute, Academia Sinica and Industrial Technology Research Institute.

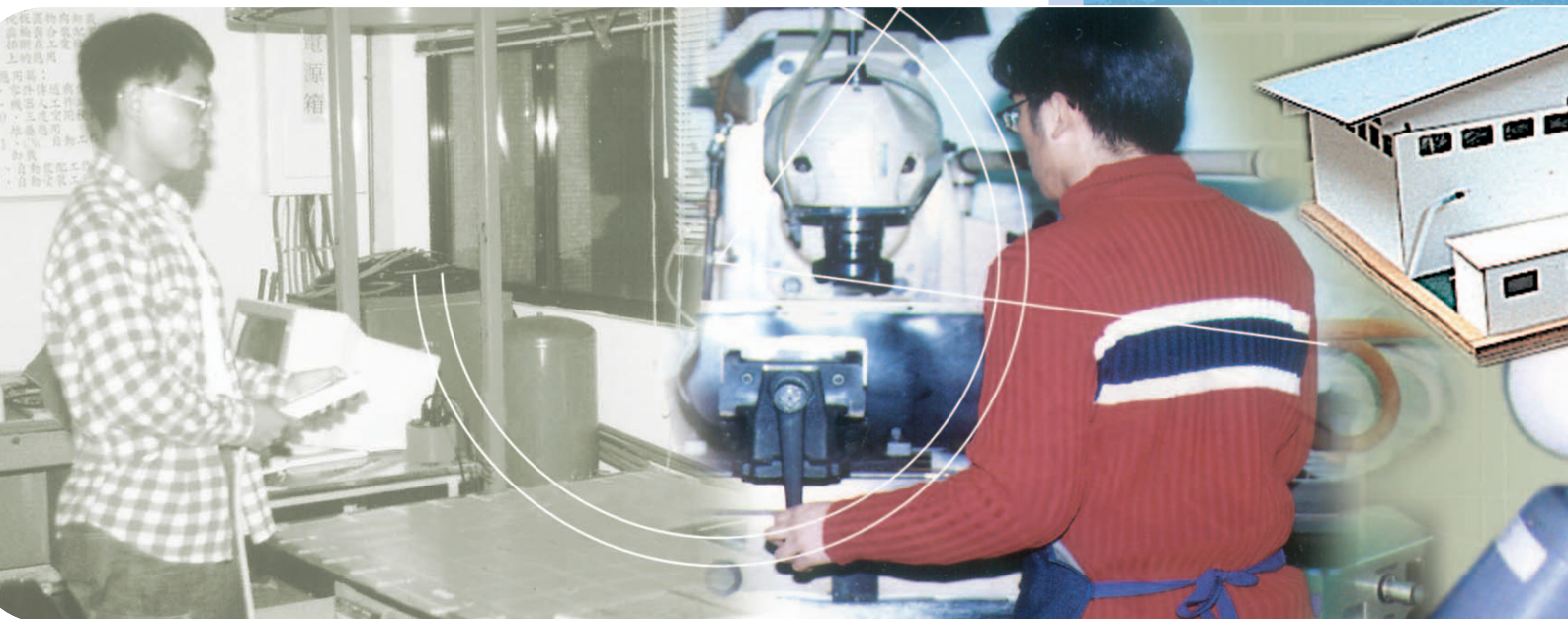
Features

Excellent polymer research is a key factor in promoting the optoelectronic industries in Taiwan. Therefore, the main feature of the department is to cultivate highly-trained professionals in molecular science and engineering, especially in the fields of organic, polymeric and textile materials. Our teaching focuses on theory as well as on practice. The department endeavors to refine traditional sub-disciplines (chemistry and chemical technology), develop interdisciplinary molecular materials, and design added-value textile products. Our current research areas include opto-electronic materials, nanomaterials processing and related technology, and biotechnology. The department has also established an advisory committee to assist with the teaching and research development of our department.

College of Management

<http://www.cc.ntut.edu.tw/~wwwcom/english>

- ➔ **Graduate Institute of Commerce Automation and Management**
- ➔ **Department of Business Management**
- ➔ **Graduate Institute of Industrial and Business Management**
- ➔ **Department of Industrial Engineering and Management**

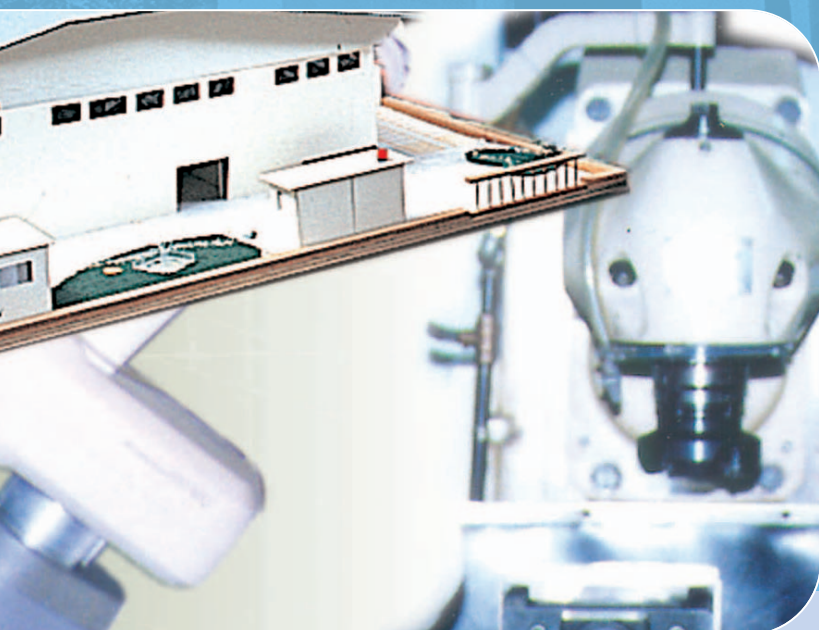


Objectives

- I. To nurture prospective managers and experts in the development of Taiwan's economy.
- II. To conduct teaching and research on business management and technology management so as to enhance the efficiency and overall competitiveness of Taiwan's industry in the international market.
- III. To strengthen international collaborations with management organizations and academic institutions with the aim of achieving higher research productivity and more effectiveness in management education.
- IV. To promote cooperation among industries, the government, and universities through cooperative programs so as to facilitate the policy of industrial enhancement as set by the government.

Features

Currently, the college offers a Ph.D. program in the Graduate Institute of Industrial and Business Management, and master's programs in the Graduate Institute of Industrial Engineering and Management, and the Graduate Institute of Commerce Automation and Management, which also provide EMBA programs. Moreover, undergraduate courses are provided in the Department of Industrial Engineering and Management, and the Department of Business Management. The former offers both 2-year and 4-year courses, while the latter a 4-year course only. These two departments also offer two different continuing education undergraduate programs: a weekday evening program and a weekend program. There are around 31 full-time faculty members, 500 full-time students, and 800 part-time students in the college. In the future, the college will set up master's programs in Business Management, Technology Management, and Information Management, respectively. In order to develop students' knowledge for technology integration, the college offers inter-departmental courses in integrated manufacturing and commerce.



GRADUATE INSTITUTE OF COMMERCE AUTOMATION AND MANAGEMENT

<http://www.cc.ntut.edu.tw/wwwicam/english>

Objectives

- I. To develop a distinctive curriculum focusing on the fields of commerce automation, marketing management, and business management.
- II. To implement e-learning, on-line discussion, and to carry out case studies.
- III. To become a renowned institute by promoting research quality.



Features

- I. Integration of teaching and research resources with those in other relevant departments.
- II. Enhancement of cooperation between academia and industry.
- III. A well-organized curriculum to train top managers for business and industry.
- IV. Promotion of application of electronic commerce to manufacturing and service industry.

DEPARTMENT OF BUSINESS MANAGEMENT

<http://www.cc.ntut.edu.tw/wwwicam/english/>

Objectives

- I. To develop a distinctive curriculum focusing on professional development, application and dissemination of managerial knowledge.
- II. To implement e-learning, on-line discussion and internship, and to carry out case studies.
- III. To become a renowned management department in Taiwan.
- IV. To offer training programs and consultation to for-profit and non-profit organizations.



Features

- I. To integrate our teaching and research programs with those in other relevant departments.
- II. To provide a well-organized curriculum to train top managers for business organizations.
- III. To emphasize computer knowledge and applications so as to keep pace with the development of information technology.



Features

The Graduate Institute of Industrial and Business Management, supported by the Department of Industrial Engineering and the Management and Graduate Institute of Commerce Automation and Management, mainly offers the Ph.D. program. This institute was established with the aim to integrate the research strengths and features of all the graduate institutions under the College of Management.

The institution's three main research directions are:

- I. Manufacturing management, including collaborative design, enterprise resources planning, logistics and supply chain management, and manufacturing execution systems and automatic inspection systems.
- II. Electronic business management, focusing on the information service industry.
- III. Service system design and management, including customer relationship management, marketing management, human resources management, and financial management.



Features

- I. Information management: to offer students knowledge and techniques of industrial engineering and management, and to enable them to increase skills in computer system planning, analysis, and design.
- II. Production management: to offer students knowledge and techniques in production management, and to enable them to do the work of planning, analysis, and evaluation in digital management.
- III. Business management: to offer students knowledge and techniques in creativity and problem solving, and to enable them to do the work of planning, operation, and evaluation in running a business.

GRADUATE INSTITUTE OF INDUSTRIAL AND BUSINESS MANAGEMENT

<http://www.cc.ntut.edu.tw/~wwwiibm/english>



Objectives

- I. To cultivate Ph.D. level research specialists in the area of integrated manufacturing and commerce.
- II. To provide high-level managerial manpower to keep up with the development of Taiwan.
- III. To combine the research capabilities and facilities within the College of Management so as to create a competitive advantage for Taiwanese businesses.



DEPARTMENT OF INDUSTRIAL ENGINEERING AND MANAGEMENT

<http://www.cc.ntut.edu.tw/~wwwie/english>



Objectives

- I. Based on the needs of economic development, national policies and society, the department offers courses to cultivate the manpower specializing in industrial engineering and management of human, material, equipment, and information resources.
- II. To train students to undertake the work of production planning and control, materials management and quality control, so as to lead to a more competitive advantage, broader market, better living quality and environment.
- III. To provide the manpower required by knowledge-based industries, and to meet the needs of economic construction, industrial and business development, and global logistics.
- IV. To offer to industry advanced manpower possessing innovative ideas, technological skills and a willingness to promote lifelong education.



College of Design

<http://www.ntut.edu.tw/~wwwdc/english>

- ➔ Graduate Institute of Design
- ➔ Graduate Institute of Innovation and Design
- ➔ Graduate Institute of Architecture and Urban Design
- ➔ Department of Architecture
- ➔ Department of Industrial Design



Objectives

- I. To cultivate advanced design professionals and to meet the needs of national economic construction and of the development of Taiwan as the Asia-Pacific Regional Operation Center.
- II. To focus on the research and professional training of sustainable environment design, urban design, architectural design, industrial design, creative design, and furniture and interior design to compete with the domestic and international industries.
- III. To strengthen scholarly exchange with international design organizations and academic institutes, and to improve research and education of design.
- IV. To carry out teaching and research, and to maintain an intimate tie with the government, industries, and research institutions so as to promote the government's policies of upgrading all industries in Taiwan.
- V. To promote the principles of sustainable environment management so as to maintain healthy and comfortable living environments.

Features

The college offers one Ph.D. program, two master's programs and three undergraduate programs: the Graduate Institute of Design, the Graduate Institute of Architecture and Urban Design, the Graduate Institute of Innovation and Design, the Department of Architecture, the Department of Industrial Design, and the Undergraduate Program of Creative Design. In order to increase research capacity and to integrate design teaching resources effectively, the college has established two research centers. One is the Sustainable Environment and Green Building Research Center, and the other is the Taiwan Culture Luxury/Design Teaching & Learning Resource Center. Both centers offer training programs and research resources. There are around 800 students and 45 faculty members in this college.



GRADUATE INSTITUTE OF DESIGN

<http://www.cc.ntut.edu.tw/~wwwgid/english>

Features

Our Ph.D. program is divided into two divisions: design of sustainable environment and design of cultural creativity.

The followings are the skills and knowledge that our students will develop while engaged in doctoral work.

Skills for:

- ! Literature searches
- ! Collaborative work
- ! Writing
- ! Presentation
- ! Teaching
- ! Network building
- ! Creative thinking
- ! Reasoning
- ! Organizing experiment
- ! Validating research

Knowledge of:

- ! Conducting and assessing research
- ! Various research methods

Objectives

Doctoral students are expected to explore a variety of research methods and become adept at organizing and evaluating various kinds of research. For those interested in teaching, appropriate teaching experiences will be provided.

Our Ph.D. program is research oriented and is designed to advance theoretical foundations through developing better theories, methods and tools.

Our program focuses on international sustainability and cultural issues rather than on superficial aspects such as history or criticism. The act of planning and design of sustainable environments or cultural creativities also take human concerns and world issues into consideration.

GRADUATE INSTITUTE OF INNOVATION AND DESIGN

<http://www.cc.ntut.edu.tw/~wwwid/english>

Objectives

Graduate Institute of Innovation and Design emphasizes theoretical study as well as practical application. The Institute takes into account the characteristics of vocational education in its curriculum and instruction so as to cultivate advanced specialists to meet the needs of national economic development. Our curriculum consists of Innovation Design Strategy and Management, which stands as our main focus, and other four areas, including Product Design Digitization, Human Factors/ Interaction Design, Life Style Studies, and Design for Fashion/Living.

Features

- I. To strengthen the education and research of Strategy and Management of Innovation and Design.
- II. To combine internet and multimedia techniques to create new product designing paradigms.
- III. To study cognitive behavior and interaction between human and product.
- IV. To emphasize human concern and to integrate theory of design into technology and arts.
- V. To apply new technology to develop high value-added products.
- VI. To promote cooperation between government, industry and academia so as to elevate competitiveness in industry design.
- VII. To organize and participate in international activities and contests.



Objectives

The main objective of the institute is to provide the highest quality of instructional and research programs.

The aim of our institute is to offer well-structured courses which will help students develop integrated skills and build up academic qualifications in the field of planning and design.

Our research goal is to develop the following specialties: comprehensive planning and design, hill slope planning and development control, environmental planning and management, landscape planning and management, urban development and regeneration, high-rise building and construction, public safety and architecture.

GRADUATE INSTITUTE OF ARCHITECTURE AND URBAN DESIGN

<http://www.cc.ntut.edu.tw/~wwwad/english>

Features

This institute offers an accredited master's program to students who hope to become qualified senior planners and designers with expertise in program integration within the fields of architecture, urban design and engineering techniques.

- I. Architecture Division: This division emphasizes theory and practice in the fields of professional discipline of architecture, conservation areas and historic buildings, architectural planning and post occupancy evaluation, safety and disaster prevention, regional landscape, and ecological design.
- II. Urban Design Division: This division emphasizes theory and practice in the fields of urban design, planning permission system, urban planning and regeneration, urban landscape, environmental planning and design, urban safety and disaster prevention, land-use and public facility planning, housing policy and development, and geographic information system.
- III. Engineering Technique Division: This Division emphasizes theory and practice in the fields of integration of construction technology and testing, technology innovation and management, green-architecture technology, and computer-aided design and simulation.

DEPARTMENT OF ARCHITECTURE

<http://www.cc.ntut.edu.tw/~wwwad/english>

Objectives

The department aims to provide the highest quality of teaching and research programs, and advanced specialties in the areas of architectural inquiry and urban design. It places equal emphasis on both theory and practice. The current research themes include: architectural history and theory, architectural design, construction and building, site planning, environmental planning and control, building automation, community planning and development, housing development, landscape planning and studies, environmental behavior, urban design, urban and regional planning, and geographical information systems. These themes are incorporated into the instruction to help students develop specialist skills in these areas through elective courses and special projects.

Features

The department offers a wide range of related disciplines to nurture a deep understanding of the conception, shaping and implementation of architectural projects, programs and policies. The curriculum is constantly updated to meet social, economic, cultural, technological, and environmental changes.

Teaching and research are deemed complementary in this department. The features of the department thus include:

- I. To equip students with a high standard of excellence in professional study and practice.
- II. To enhance domestic and international academic cooperation and exchange.
- III. To establish a close tie with the alumni, governments, academics and local industries.



Objectives

In view of the needs of national economic development and social development, the department is devoted to cultivating advanced design specialists who possess creativity and can engage in research, planning and management. The department now offers a 4-year undergraduate program with two divisions. The Product Design Division focuses on transportation design, 3C product design and design for fashion products. The Furniture and Interior Design Division emphasizes all kinds of furniture innovation and issues related to the improvements of human environments.

DEPARTMENT OF INDUSTRIAL DESIGN

<http://www.cc.ntut.edu.tw/~wwwid/english>

Features

- I. To emphasize creativity and the application of new materials and new technologies.
- II. To provide students with various kinds of specialized knowledge through core courses conducted by a team of instructors in seminar format.
- III. To offer unique furniture and interior design courses. Students can learn how to make the finest furniture by combining the classic Chinese furniture and by renovating the Chinese style.
- IV. To establish a close tie with the government, industry and academic sector so as to offer on-the-job training to designers.
- V. To offer a master's program with emphasis on the integration of product design, furniture and interior design, and design digitalization.
- VI. To promote domestic and international scholarly exchange programs.



College of Humanities and Sciences

<http://www.cc.ntut.edu.tw/~wwwhs/english>

- ➔ Graduate Institute of Technological and Vocational Education
- ➔ Department of Applied English
- ➔ General Education Center
- ➔ Teacher Education Center
- ➔ Office of Physical Education



Objectives

- I. To cultivate manpower in higher technological & vocational education and provide in-service teachers with training opportunities.
- II. To develop required English abilities and nurture professional English manpower.
- III. To reinforce general education curricula and to enrich cultural spirit and disposition.
- IV. To emphasize physical education programs and to enhance teachers' and students' energy and vitality.
- V. To offer teacher education programs and to foster professional teachers for middle high schools.

Features

The College of Humanities and Sciences currently consists of five units: Institute of Technological and Vocational Education, Department of Applied English, Center of General Education, Office of Physical Education, and Center of Teacher Education. The Institute of Technological and Vocational Education offers a master's program for full-time students, and a special in-service program for a master's degree and a Ph.D. program. The Department of Applied English offers a four-year bachelor's program and a master program. This department is also responsible for English curriculum planning and teaching in this university. The Center of General Education plays a major role in planning the curriculum of general education, which covers the following three fields: humanities, social studies and natural sciences. The Office of Physical Education assumes the responsibility of physical teaching and activity planning, and helps design athletic and leisure activities for faculty and students. The Center of Teacher Education aims to organize and offer training programs for middle school teachers.





GRADUATE INSTITUTE OF TECHNOLOGICAL AND VOCATIONAL EDUCATION

<http://www.cc.ntut.edu.tw/~wwwved/english>

Objectives

The institute is devoted to academic research in three main fields: technological and vocational education, human resource development, and instructional technology. By cultivating our master's and doctoral students in these three areas of studies, our program assists them in gaining an advanced understanding of both practical and theoretical aspects of technological and vocational education, improving their professional ability. In addition, the curriculum offered by the institute is closely tied to the needs of our developing society as well as to the predictable changes of worldwide trends in technological and vocational education.

Features

- I. The institute is the first graduate institute of technological and vocational education in Taiwan, offering both master's and doctoral programs since 2004.
- II. Our institute offers graduate programs of advanced technological and vocational education for full-time and part-time students; we encourage full-time students to elevate their theoretical research, and part-time students their practical research.
- III. With an emphasis on the use of computer in teaching and the use of the internet to acquire information of technological and vocational education, the institute has its own computer lab offering students with an excellent research environment.
- IV. Our qualifying examinations cover different fields of study. Thus, students from diverse academic backgrounds can all have opportunities to pursue research in technological and vocational education in this institute.
- V. Full-time students have opportunities to study in the teacher education program by passing the admission examination for the program and completing required credits. Students will obtain a master's degree and a secondary teacher certificate upon graduation.
- VI. The institute offers a wide variety of courses. Students may take courses which suit their needs in their specialization and career development. Students may also take elective courses provided by other departments or institutes in this university.

DEPARTMENT OF APPLIED ENGLISH

<http://www.cc.ntut.edu.tw/~wwwae/english>

The Department of Applied English was founded in August 1999. Its goal is to cultivate English majors who will help promote the development of Taiwan's economy and culture after graduation. To achieve this goal, it is dedicated to developing students' creative and critical thinking ability, communication skills, international cultural vision, and proficiency in foreign languages.

The program of study for English majors places equal emphasis on theory and practice. It aims to develop students' listening, speaking, reading, writing, and independent thinking ability. To that end, the department offers a wide range of courses including critical approaches to literature, cinema, popular culture (e.g. music, television), cultural studies, gender studies, linguistics, and social issues. It encourages faculty to apply audio/visual facilities and online

resources to reinforce the students' learning in the English language, culture, literature, as well as second foreign languages (Japanese, French, Spanish, German) and commercial and business English. In addition, the department hosts regular colloquia in theory. Recent colloquia have included discussions of de Saussure, Levi-Strauss, and Lacan. The purpose of these colloquia is to allow faculty and interested students to become familiar with influential (and often difficult) texts and theoretical trends that are a part of the current intellectual landscape.

The department has been dedicated to recruiting distinguished native as well as non-native English-speaking scholars to join its faculty. It aims to construct a creative, free, and open research community to reinforce its pedagogy, to enhance students' competitiveness in the job market or in advanced academic pursuits, and to elevate its academic reputation.





GENERAL EDUCATION CENTER

<http://www.cc.ntut.edu.tw/~wwwgen/english>



Objectives

- I. To provide students with broader and deeper knowledge in the fields of humanities, social studies and natural sciences, which will undoubtedly help develop their professional studies in their respective majors.
- II. To cultivate students' better language abilities, and to help students develop critical thinking and appreciate fine arts.
- III. To help students develop sound personalities.
- IV. To help students become professional specialists who care for humanity, society and natural environments.
- V. To equip students with an adequate background in social sciences so as to upgrade their ability to adjust to the society, to serve people and to lead.



Features

- I. All the courses are categorized into three groups: humanities, social studies and natural sciences. Each of the groups consists of core courses and general courses.
- II. The core courses are set to develop students foundational knowledge and skills in general education, while the general courses, aiming to achieve the goal of holistic education, are set to help students meet the demands of modern life in our multi-dimensional society.
- III. Through various interactive activities between students and teachers, we promote the kind of general education which can nurture each student's potential to the fullest. We would like to equip our students with humanity literacy in addition to their professional capabilities.

TEACHER EDUCATION CENTER

<http://www.cc.ntut.edu.tw/~wwwged/english>



Objectives and Features

The Teacher Education Center was founded in 1995 and aims to provide pre-service education to students who are willing to devote themselves to high school teaching careers. Students interested in teaching must pass the admission exams held by the center. An oral exam is carried out to evaluate students' personal traits and their beliefs about education. The exam is designed to select those who will be devoted to education and who demonstrate the characteristics of promising teachers.

The admission is quite competitive, because the Ministry of Education sets a limit on the number of students that can be admitted to our program. On average, only one-fourth of the applicants will be admitted. The mission of the center focuses on teacher training and education for secondary school teachers. The center also focuses on cultivating students' ability in computer applications and multimedia instruction.

To ensure a quality internship program, the center has established partnerships with approximately 80 secondary schools. The coordinator of internship and several experienced teachers are in charge of internships to provide guidance and counseling. Students will learn to become knowledgeable and skillful secondary school teachers through the internship program.



Objectives

- I. To teach physical education and to organize extracurricular activities:
 1. To cultivate mind as well as body so as to bring about the balanced development of these two aspects.
 2. To promote sportsmanship so as to enhance team spirit.
 3. To increase the knowledge of physical education so as to build up good exercise habits.
- II. To carry out academic research in physical education:
 1. To encourage academic research in physical education.
 2. To elevate research standards of physical education.
 3. To promote academic development of physical education teachers.
- III. To offer physical education and recreation programs:
 1. To assist our faculty members and students in setting up sports and recreation clubs.
 2. To hold sports contests and recreational activities to enhance fellowships among the faculty members and students.
 3. To help our faculty members and students maintain good health and to enrich their sports and recreational life.

Features

- I. To actively get involved in the establishment of sporting and recreational facilities of this university, in order to uplift the standard to that of a first-rate university.
- II. To take initiative in designing new programs for our faculty and students with an aim to enrich their recreational life.
- III. To promote extracurricular activities and amateur contests for the faculty members and students to cultivate harmonious relations.



Taipei Campus Map



- 1 Administration Building
- 2 Library
- 3 First Teaching Building
- 4 Second Teaching Building
- 5 Third Teaching Building
- 6 Fourth Teaching Building
- 7 Fifth Teaching Building
- 8 General Studies Building
- 9 Design Building
- 10 Material Resources Building
- 11 Civil Engineering Building
- 12 Chemical Engineering Building
- 13 Textile Engineering Building
- 14 Chiang Kai-shek Gymnasium and Memorial Hall
- 15 Complex Building
- 16 Chemistry Building
- 17 Memorial Hall for Dr. Sun Yat-Sen's One Hundredth Anniversary
- 18 Science and Technology Research Building
- 19 Student Dormitory
- 20 Tennis Court
- 21 Basketball Court
- 22 Volleyball Court
- 23 Track and Field Ground
- 24 Innovation and Incubation Building
- 25 Cooperative Education Building
- 26 Kuang-Hua Building

