大同大學

TATUNG UNIVERSITY

CONTENTS

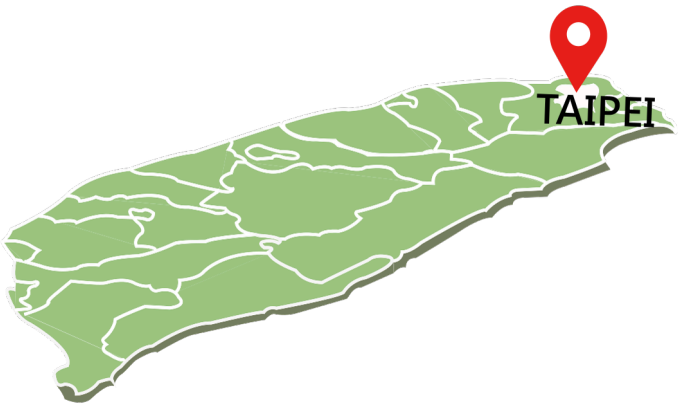
INTRODUCTION TO TATUNG UNIVERSITY (TTU)

ABOUT TTU

Tatung University (TTU) is a teaching and research-oriented private university highly recognized for its engineering and management programs. Having developed side by side with Tatung Company, the leading electric and electronic multinational company with annual sales of 10 billion US dollars and 40,000 employees worldwide, TTU has placed a special emphasis on practical and professional learning. Over the years, it has a proven track of success in educating and training talented engineers, business professionals, and industrial leaders.

LOCATION

Conveniently situated in downtown of Taipei City, TTU can be easily accessed by bus and subway. Also, surrounded by stores, museums and restaurants, TTU members have plenty of opportunities to explore the rich, creative, lively, and colorful aspects of this Asian metropolitan city.



HISTORY

Aware that having a well educated and talented work force is crucial to the long-term success of a business, Mr. Shan- Chih Lin (林尚志), founder of Tatung Company, donated 80% of his personal assets to an association in 1942 to establish what is now known as Tatung University and Tatung Senior High School. Since then, the university has been the principal stockholder and the think tank of Tatung Company. Formerly known as Tatung Institute of Technology, which was accredited firstly as a two-year college and then as a four-year institute, Tatung University adopted its present name in 1999. Throughout the period of its development, it has been cooperating closely with the company to provide a practical and intellectual learning environment to engineers, scientists, business/industrial managers, artists, and experts in many other professional fields.

MISSION

TTU has been working toward its principal mission of educating and training experts and professionals, especially those in the engineering, business management, and industrial design fields, to meet the increasing demands of the society and to satisfy the needs of economic, social, cultural, and other human developments.

CHARACTERISTICS

PERFECT COMBINATION OF THEORY & PRACTICE

Having grown and developed side by side with Tatung Company, Tatung University, from its very beginning, has the tradition of emphasizing and encouraging practical trainings in addition to theoretical teachings. Students are required not only to test their learned knowledge in the equipped laboratories, but also to apply the theories and sharpen their skills through internships sponsored by Tatung Company or its subsidiaries. Moreover, students are encouraged to apply their general and/or specialized knowledge through active participation in local or international humanitarian/voluntary works. The opportunity to acquire substantial hand-on experience during their schooling enables the TTU graduates to be job-ready immediately following the completion of their studies and to remain highly competitive and successful throughout their career life.

WELL-ROUNDED EDUCATION

Aiming to train its students to become experts in their chosen professions, to develop their leadership ability and the ability to work well with others as a team, and to increase their sense of responsibility, TTU has designed a thorough curricula for its students. In addition to the specialized courses, TTU students are required to take courses in different fields and those outside of their own department. Also, to meet the demands of the global economy, students are required to learn English, Japanese, and/or another foreign language.

LEADERSHIP TRAINING

In addition to the specialized knowledge and skills, TTU emphasizes on its students' leadership ability. Through frequently participation in various student activities, special occasions, and international events, TTU students are given a great opportunity to develop their sense of honor, of responsibility, of working and to learn to coordinate, to think independently, creatively, and analytically, and to take initiatives.

PERSONAL ATTENTION TO STUDENTS

Acknowledging that most skills can be best learned through continuous practice and close supervision, TTU maintains a low faculty-student ratio which, in term, enables professors to constantly supervise each student's performance and develop a close relationship with them. Each TTU student is being supervised by two faculty members who monitor his/ her academic and general progress and promptly provide the student with consultation whenever needed. In addition, in his/her junior year (usually the third year of the undergraduate study), each student would be teamed up with a professor who acts as the student's research advisor and provides necessary guidance on research projects and career planning.

HIGHLY QUALIFIED & DEDICATED FACULTY

Emphasizing both on teaching and research, TTU faculty members not only many hours a day in mentoring students, but also actively involve themselves in basic and/or applied researches, international activities (e.g. international conferences, international joint research projects, exchange of faculties), and paper publications. The great majority of them are doctoral degrees holders and have worked and/or studied abroad. Since many of them came from the business or industrial sectors, they are highly experienced both academically and professionally and are closely connected to industrial and business world.

EXTENSIVE RESEARCH EXPERIENCE

I TTU encourages its faculty members to publish quality research results in highly recognized international publications. Graduate students follow their advisors to improve their academic and research skills on a daily basis. Most of the faculty members actively participate in independent or joint research projects sponsored by Tatung University, academic and government agencies and constantly attend international and national conferences or seminars.

FEATURES

DORMITORY

To accommodate international students and students out- of town, TTU has a 10-floor dormitory capable of housing approximately 1000 students. Conveniently located right across the street from the campus, it provides TTU students with a safe, affordable, and comfortable living quarters with Internet connection.

LIBRARY

The library houses more than 187,930 volumes of books and 215 periodicals. Internet, 60 online databases, and 138777 electronic journals are made easily accessible to all TTU members.

COMPUTER CENTER

TTU computer center is equipped with the most updated facilities, such as Gigabit Ethernet Switch (Cisco 6509), a wireless switch (Cisco and Aruba), an IP PBX system (Alcatel Omni Switch), and more than forty rack servers. Combined with two PC classrooms and two distance learning classrooms, the wired and wireless networks at TTU also enable its students and faculties to conduct substantial scientific and scholastic researches.

TTU computer center had passed ISO9000, BS7799 and ISO27001 certifications to reach the worldwide criteria for information security and management. We continuously strive to provide efficient IT support and safe IT environment for teaching, research and administration.

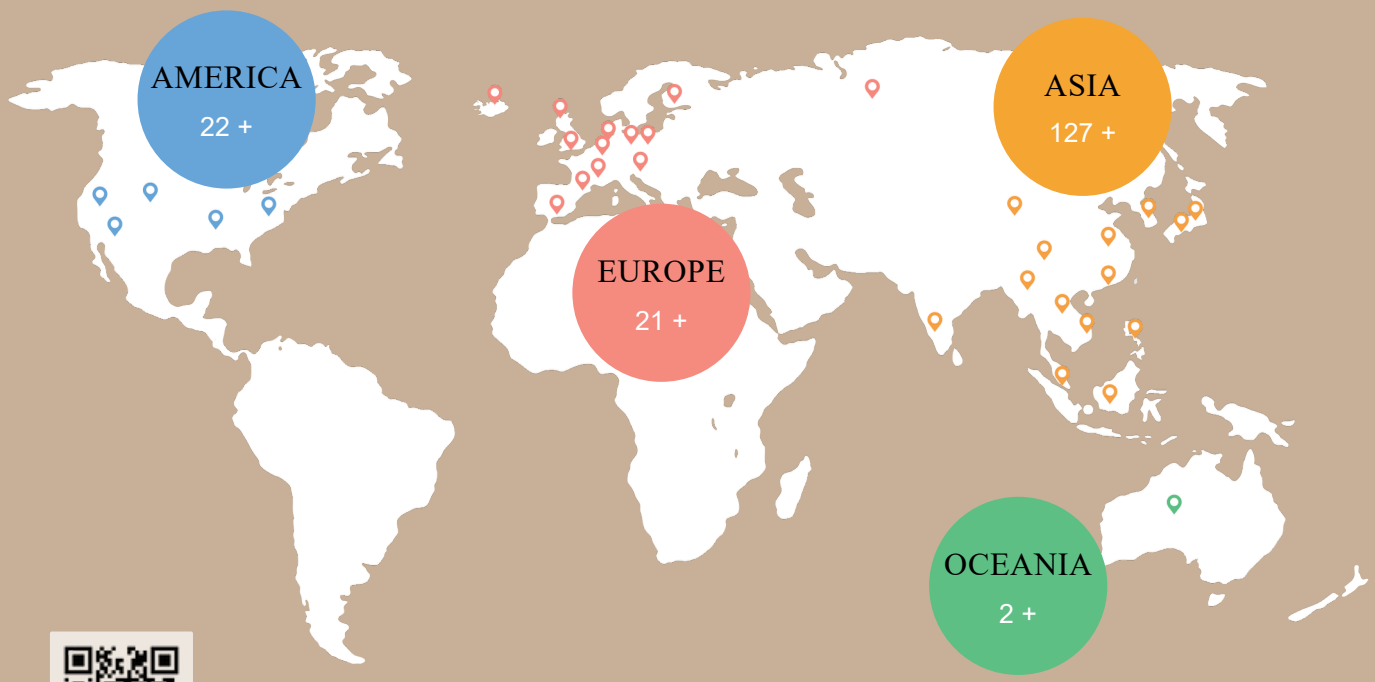
INTERNATIONAL ACADEMIC COOPERATION

To increase the students' ability to compete in the global market, TTU not only requires its students to learn foreign languages, but also has been focusing on globalization of its campus and educational system. By offering a great number of scholarships, grants, and funds to its students and faculty members, TTU has strongly encouraged its members to engage in various exchange programs and international activities, such as international joint research projects, internships, and voluntary tasks. Also, foreign dignitaries, scholars, and researchers pay frequent visit to TTU and periodical participation of TTU regularly participates in international education exhibitions.

PARTNER SCHOOLS

Outbound Exchange Program/ Dual-Degree Program/ Double Degree

- Germany | Stuttgart University of Applied Sciences
- Netherlands | Fontys University of Applied Sciences
- Austria | Upper Austria University of Applied Sciences
- France | Angers Graduate School of Business-ESSCA
- United States of America | Iowa State University
- Japan | Chiba University
- Japan | Kumamoto University



RESEARCH AND DEVELOPMENT

RESEARCH AND DEVELOPMENT

The Office of Research and Development was established for the purpose of elevating the quality of academic research, teaching and school affairs. Comprehensively deal with the matters of industrial-academic collaboration, academic cooperation, innovation, and incubation. Based on the concept of “Integration of Construction and Education, Research and Development” with a global perspective, outstanding researchers are integrated in the school to conduct research with industry. More importantly, TTU was awarded five times as Excellence in Industry-Academic Cooperation by the Chinese Institute of Engineers (CIE) in recent decade. “Energy Storage & Conversion Technology Research Center”, “Smart Internet of Things Research and Development Center”, “Innovative Design and System Integration Research Center”, and “Innovative Chemical Engineering and Biotechnology Center” were developed as university-level to lead academic research toward global industry.

Food Nature Village provides an environment for elders to experience the process of planting and harvest.

RESEARCH CENTERS

Tatung University has established four university-level research centers as follows:

Energy Storage & Conversion Technology Research Center (ESCT)

The ESCT research center was founded in 2009 under the cooperation with Tatung Co. from 2000 to 2007 as a self-sustained research group based on the facilities of the pilot run for cathode materials. Thereafter, ESCT cooperated with Taiwan Textile Research Institute and Chung-shan Institute of Science and Technology from 2006-2008 to develop electrode materials for the next generation of lithium ion batteries and the commercial cells characterization and modeling . After the establishment, with financial sponsorship from Toes Opto-Mechatronics Co. (2008-2015) and National Science Council (2009-2015), ESCT accomplished LiFePO4-based battery manufacturing technology development, high energy density lithium-rich and high-voltage spinel cathode materials, and zero-strain anode materials.

At present, the increased deployment of renewable generation of energy, coupled with the high cost of managing peak grid demand, is driving interest in stationary energy storage technologies within the utilities industries. One of the currently under researches of ESCT are cathode materials, aging mechanisms and electrochemical properties, and model of lithium ion batteries for power applications. Other R&D topics includes supercapacitors, fuel cells, solar cells, and smart grids. Along with TTU’s Smart Internet of Things Research and Development Center, further study will focus on the development of battery management system (BMS) and smart grid. At ESCT, we share the vision that electrical energy storage is not only a key driver for the electrification of transport but will also play a vital role in catalyzing the integration of renewable energy sources. To exploit such systems in an efficient and economic manner, ESCT has set up a common research infrastructure for the testing and characterization of electrochemical storage systems.

Smart Internet of Things Research and Development Center (SIRD)

Smart Internet of Things R&D (SIRD) Center was established by Professor Fu-Chiung Cheng of the Department of Computer Science and Engineering in March 2016. The goals of SIRD are to:

- Develop Internet of Things (IoT) and Artificial Intelligence(AI) techniques and apply AIoT patents worldwide
- Design AIoT systems and products
- Study and apply AIoT business models
- Set up university spin-off AIoT business enterprises

Researchers and students work on preparing Li-ion batteries.

5 L fermentation system

SIRD Center is partially supported by the following industry-academic projects in 2016-2020:

- A Study of Mobile Intelligence and Data Storage Architecture for the Internet of Things Applications, Ampacs Co. NT$2,100,000
- Smart IoT Data Center, TISNet, NT$750,000. ● Cloud-Based System Software for IoT Applications, Tatung Co. NT$1,400,000
- Intelligent Gateway Software for IoT Applications, Tatung Co. NT$1,600,000
- Design and Implementation of an IoT-based water quality detection system, Oyatt Co. NT$759,000
- Chabot and IoT integration in Smart Robots, Tatung Co. NT$2,400,000
- Automatic connection of a Wi-Fi tree network, Tatung Co. NT$1,270,000
- Multifunctional spray sterilization module design R&D plan: IoT cloud design and architecture planning, DTF Tech Group, NT$300,000
- Smart Earbud System Development, Tatung Co. NT$1,270,000
- Engineering App Development for True Wireless Smart Earbuds, Tatung Co. NT$1,270,000

Since 2016, we demonstrated our AIoT applications (such as smart home system, smart data center and large scale IoT wireless charging system) to more than 300 worldwide companies, governmental units or academic institutions, including renowned companies such as Sony Mobile, Compal Electronics, and Xiaomi. We owned more than 30 patents, including 4 international IoT patents, and many more are in progress. SIRD center is set up not only for expanding AIoT businesses, but also for AIoT educational programs for all levels of students ranging from primary school to college. Our AIoT IDE tools (http://iot.ttu.edu.tw) are free on line and make developing AIoT applications easy and fun. We expect more funding in the coming year and need you to join us and make a better and smarter world through AIoT technologies.

Innovative Design and System Integration Research Center

Research projects that cross fields will be the trend of the future as they inspire innovative thinking and better service design. For the purpose of integrating product, media and innovation designs research, this research center combines the resources from various TTU departments—in particular, the College of Design–to improve design research and interdisciplinary cooperation. As a result, better results will be generated by experts from diverse fields.

The members of this research center specialize in areas such as: human factor design, design expression, color design, integrated database application, interaction design, product design, interface design, design cognition, research of design behavior, user behavior, indicator system design in public space, human- computer interaction, intelligent space and so forth.

With previous research projects funded by Ministry of Science and Technology (MOST), the Taiwanese government, and legal foundations and industries; this research center is expected to fill the gap between industry and academy in order to gain more opportunities together.

Innovative Chemical Engineering and Biotechnology Center

Cooperate with the government to strengthen the international competitiveness of the chemical and biotechnology industry, and promote the development of five major projects such as bulk drugs, pharmaceuticals, animal vaccines, flowers, and biological pesticides. It also cooperates with the "Taiwan Bioeconomic Industry Development Plan", including strengthening the industrialization R & D role of the value chain, establishing a biotechnology venture capital fund, promoting an integrated breeding mechanism, and establishing the Taiwan Food and Drug Administration (TFDA) to build and internationalize Converged medical regulatory environment, etc. In addition, the "Taiwan Bioeconomic Industry Development Plan" is mainly used in the three major fields of agriculture, health, and industry. Based on this, its application and expansion will be introduced into the fields of health care, industry, green chemistry, medical materials, pharmaceuticals and agricultural biotechnology in order to expand the industrial scale and adjust the industrial structure. By combining government resources and policy support, create an environment in which the chemical and biotechnology industry is conducive to entrepreneurship, investment, and growth. In view of the above-mentioned industry development trends, the University established an Innovative Chemical Engineering and Biotechnology Center in 2017 to assist the development of related industries.

IoT applications demo in Hua-Shan 1914 Creative Park for the 104 Program for Promoting Teaching Excellence Universities

UNDERGRADUATE & GRADUATE PROGRAMS

TTU COLLEGES			
Departments	Bachelor	Master	Ph.D.
COLLEGE OF ENGINEERING			
Chemical Engineering and Biotechnology	● (Chemical Engineering Program) (Biotechnology Program)	●	●
Mechanical & Materials Engineering	●	●	●
First-year Engineering Undeclared Program	●		
COLLEGE OF ELECTRICAL ENGINEERING & COMPUTER SCIENCE			
Electrical Engineering	●	●	●
Computer Science and Engineering	●	●	●
COLLEGE OF MANAGEMENT			
Business and Information Management	●	● (MBA, EMBA)	
COLLEGE OF DESIGN			
Digital Media Design	● (Interaction Design Program) (Digital Game Design Program)	●	
Industrial Design	●	●	
Design Science			●
INTERNATIONAL COLLEGE			
Applied Foreign Languages	●		

COLLEGE OF ENGINEERING

DEPARTMENT OF CHEMICAL ENGINEERING AND BIOTECHNOLOGY

ABOUT US

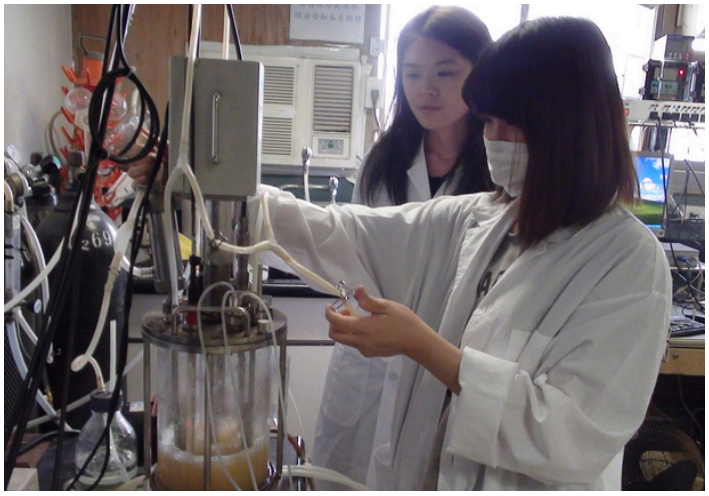
The Department of Chemical Engineering and Biotechnology was founded on the basis of pedagogical ideology in nurturing outstanding talents versed in chemical, biological and engineering related theories and knowledge; and in transferring the technologies to industries. We emphasize on scientific reasoning, with engineering technology training on the periphery, to go in parallel with our ideology of quality education in general. We encourage pursuit of careers to better human living and promotion of harmonious relations between human and nature.

FEATURES

The department has passed the IEET engineering and technology education certification to train students to become excellent scientists, engineers and industry leaders. In order to improve the quality of higher education, cultivate cross-disciplinary talents, improve employment competitiveness, promote cross-disciplinary courses, and integrate international development trends, through the integration of the Department of Chemical Engineering and the Department of Bioengineering, teachers, courses, equipment. The integration of resources such as space enables the new course to complement each other with professional advantages and become more complete, in order to create new courses of high quality, exquisite and cross-disciplinary features.

PRIMARY RESEARCH AREAS

Today, our faculty is involved in research programs not only in the traditional chemical engineering fields, but also actively in developing nanotechnology, high-tech materials science, resources and environmental protection, sustainable energy, biomedical engineering, biological information, food, and agriculture and so on.



CORE COURSES

They include Engineering Mathematics, Organic Chemistry, Physical Chemistry, and Biochemical Engineering. Students may choose a chemical engineering subprogram or biotechnology subprogram. In chemical engineering subprogram, Transport Phenomena and Unit Operation, Polymer Chemistry, Chemical Thermodynamics, and Chemical Reaction Engineering are included. In biotechnology, Molecular Biology, Biomedical Engineering, Food Technology, and Plant Tissue Culture are included. Hands-on experiments are emphasized in all courses.

Course Requirements

- Requirements for Bachelor's Degree of Engineering: 128 credits of courses
- Requirements for Master's degree of Engineering: 36 credits of courses
- Requirements for a PhD. degree of Engineering: 34 credits of courses

CONTACT

TEL: +886-2-21822928 ext.6272

WEB SITE: https://cebt.ttu.edu.tw

EMAIL: ccchan@gm.ttu.edu.tw

COLLEGE OF ENGINEERING

DEPARTMENT OF MECHANICAL AND MATERIALS ENGINEERING

ABOUT US

The Department of Mechanical and Materials Engineering, established in 2021, aims to provide a multidisciplinary program. Students are required to apply hands-on practices to solve real-world problems and to develop teamwork and independent study skills. The length scales of these problems range from tens of meters to nanometers. Our academic program delivers the highest quality education in the fundamentals and applications of mechanical and materials engineering. This is presented in a unique multidisciplinary setting where students can tailor their education and research to their own specialized interests. Our department has been recognized for the quality of its educational program and research activities by IEET (Institute of Engineering Education Taiwan) accreditation since 1996. Equipped with hands-on experience and a teamwork spirit, students prepare themselves for the future job market.

FEATURES

- Hands-on philosophy: The courses emphasize a hands-on approach, focusing on creating and building rather than purely theoretical inquiry.
- Real-world problem-solving skills: Many projects nurture students' ability to solve real-world problems.
- Factory internships: Students are encouraged to spend time in factories or companies to develop the work ethics essential for their future careers.
- Multidisciplinary learning: The department provides many multidisciplinary programs that broaden students' perspectives on knowledge.

Primary Research Areas and Equipment

Energy and Thermo-Fluid Systems

Micro-fluidics, Flow in Porous Media, Hydrogen Technology, Fuel Cell, Electronic Cooling

Control Systems

Intelligent Control, Intelligent Mechatronics, Computer Vision, Automation System Design, Robotics, RFID/SAW, Nature-Inspired Systems, Bio-Inspired Computation

Design and Manufacturing

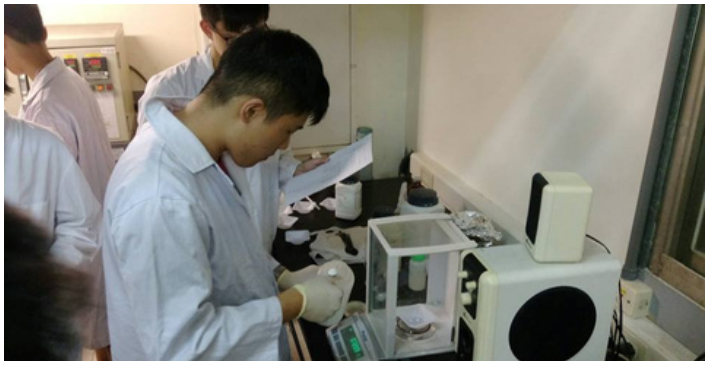
Micro-Electro-Mechanical Systems, Ultrasonic Device, Package Mechanics, Fatigue/Fracture Mechanics, Vibration/Acoustics, Metal Cutting, Reverse Engineering, High Power LED, Sensor, Thin Film, Engineering Optimization, CAD/CAE

Materials Sciences

Metallic materials, Glass and Ceramics, Composite Materials, Polymer Materials, Electronic Materials, Biomedical Materials and Nanomaterials, Advanced ceramics, Biomaterials

Equipment

high resolution field-emission scanning electronic microscope (FE-SEM), transmission electronic microscope (TEM), X-ray diffraction (XRD), thermal analysis instruments (DTA, DSC, TMA), material testing system (MTS)



CORE COURSES

Engineering Graphics, Manufacturing Process, Introduction to Materials Sciences, Thermodynamics, Materials Engineering Experiments, Electric Circuit, Mechanics of Materials, Mechanical Engineering Experiments, Mechatronics, Engineering Mechanics, Engineering Systems Design and Development, Journal Paper Reading Seminar, Senior Projects

CONTACT

TEL: +886-2-25925252 ext. 6171

WEB SITE: https://mme.ttu.edu.tw

EMAIL: yhlee@gm.ttu.edu.tw

DEPARTMENT OF ELECTRICAL ENGINEERING

ABOUT US

The Department of Electrical Engineering (EE) was founded in 1963. The mission of the department is to provide EE students with a fundamental understanding of electrical engineering built on a foundation of physics, mathematics, and computing. Undergraduates are expected to acquire the experimental, design, and communication skills needed for continued study at the graduate level or for the practice of electrical engineering. Our curriculum offers a number of specialization areas, including microelectronics, ICs design, control systems, power systems, computer networking and security, electromagnetics, communications, signal processing, and electro-optical engineering.

The graduate program offers degrees leading to either a M.S. or Ph.D. in EE, providing students with advanced coursework, in-depth training, and research opportunities in several fields. Both undergraduate and graduate programs are accredited by the Engineering Accreditation Criteria of IEET (Institute of Engineering Education Taiwan Accreditation Council).

FEATURES

- The department stresses hands-on experience in learning. Right from the first semester, undergraduates take at least one lab course each semester. Each lab is instructed by at least two devoted faculty members, not by teaching assistants.
- The senior project is required for every undergraduate. Students are encouraged to team up and explore in this capstone course. To make sure every student receives a proper guidance, all faculty members are obligated to participate in the senior project.

PRIMARY RESEARCH AREAS

Control Systems: fuzzy systems and their applications, intelligent control, and robotic systems.

Microelectronics and VLSI: analog, RF, digital and mixed-signal ICs design, and embedded systems.

Electro-optical Engineering: nano-photonics technology in surface plasma sensors, fiber-optics bio-sensors, photonic integrated circuit, and advance thin film transistor for display applications.

Electric Power and Energy Systems: power systems, power electronics, renewable energy, smart grid, and power converter applications.

Information and Communication: Artificial intelligent and their applications, internet of things, mobile telecommunication networks, multi-carrier transmission, and satellite communication.

CORE COURSES

Undergraduate

Introduction to computer, programming, logic design, logic design experiments, electric circuits(I)(II), electronics(I)(II), electromagnetics, differential equation, linear algebra, probability and statistics, signals and systems, applications of microprocessor, electrical engineering experiments, programming experiments, electrical and electronic circuits experiments, project experiments.

Graduate

Fuzzy theory and applications, control systems, linear systems, robotic systems, optimal control, random variable and stochastic process.

Power system analysis, power electronics, switching power supply, smart power grid.

Digital ICs, analog ICs, mixed-signal IC design, introduction to VLSI, FPGA system design and practice.

Electro-optical engineering, solid-state electronic device and physics, IC process technology, thin-film technology, nano-technology, integrated optics.

Mobile communication network, multi-carrier transmission, digital communication system, computer network, computer vision, voice signal processing, digital signal processing, digital image processing, artificial neural network, generative artificial intelligence.

Course Requirements

For a B.S. Degree: 128 credits of courses

For a M.S. Degree: 32 credits of courses

For a Ph.D. Degree: 26 credits of courses

CONTACT

TEL: +886-2-21822928 ext. 6389

WEB SITE: http://eettu.ttu.edu.tw

EMAIL: meihui@gm.ttu.edu.tw

COLLEGE OF ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ABOUT US

Founded in 1982, the Department of Computer Science and Engineering at Tatung University offers a fine program that prepares the students to meet the challenges of tomorrow and assume leadership in an ever changing world. To this end, the requisite core courses place equal emphasis on both theoretics of computer science and hands-on training to ensure that students have the necessary breadth of knowledge and skills for their future career. Elective courses such as information and network security, IoT(Internet of Things) application and security, artificial intelligence, computer vision, web programming, computer graphics and animation, embedded systems design, etc. provide additional depth of knowledge from a wide spectrum of fields in computer science.

The mission of the Department is clear: we are here to inspire. Through the synergistic efforts of the faculty and staff, the Department provides a curriculum that aims at cultivating independent thinking, research skills, a desire for continuous learning, and in particular, an ability for applying theoretical findings to engineering applications.

Continuing a history of excellence, the Department strives to promise the students a life that makes a difference, a life that is both enriching and fulfilling when confronted with the challenges and opportunities of a rapidly evolving world.

PRIMARY RESEARCH AREAS

Artificial Intelligence

Machine learning, computer vision, semantic web, and natural language processing.

IoT (Intelligence of Things)

IoT application, IoT security, AIoT, and embedded IoT system design.

Information Security

Cryptography, cybersecurity, network security, and digital forensic.

FEATURES

The Department of Computer Science and Engineering has been certified by the Institute of Engineering Education Taiwan (IEET), and our goal is to place as much emphasis on theory as on application, which closely follows the current state of industry and future development trend in Taiwan. The curricula cover artificial intelligence, IoT, and information security. Currently, the Department offers three programs in information security, IoT, and artificial intelligence. In addition to requiring thorough understanding of the fundamentals, we especially insist on hands-on practice. Software laboratories are well equipped, and not only basic software courses come with lab experiments, required lab work is also provided for such advanced courses as computer vision, image processing, applications of RFID, IoT application, and embedded systems. The Department also offers a master's program and a doctoral program for the students who would like to further their studies in a specific field of study or area.

CORE COURSES

Introduction to computer, Computer programming, Object oriented programming, Data structures, Algorithms, Database systems, Operating systems, Digital electronics, Logical design, Computer organization, Linear algebra, Discrete mathematics, Probability and statistics, Project laboratory.

CONTACT

TEL: +886-2-21822928 ext. 6565

WEB SITE: http://cse.ttu.edu.tw

EMAIL: lgchiu@gm.ttu.edu.tw

COLLEGE OF ENGINEERING

FIRST-YEAR ENGINEERING UNDECLARED PROGRAM (SCHOOL OF ENGINEERING)

ABOUT US

The School of Engineering is committed to promoting an engineering education model that emphasizes "learning by doing" and "project-based learning," encouraging students to learn in an active, practical, and interdisciplinary manner. The purpose of this program is to implement the spirit of postponing the major declaration until the end of the freshman year, facilitating suitable development for students. During the freshman year, students can explore their future development directions based on their interests and abilities. After completing the freshman curriculum, they can freely choose any field within the School of Engineering (Department of Mechanical and Materials Engineering, Department of Chemical Engineering and Biotechnology, Department of Electrical Engineering, or Department of Computer Science and Engineering). In their sophomore year, they will continue to pursue their studies, eventually obtaining a bachelor's degree from the chosen department.

FEATURES

Exploring Interests and Enriching Learning Experiences

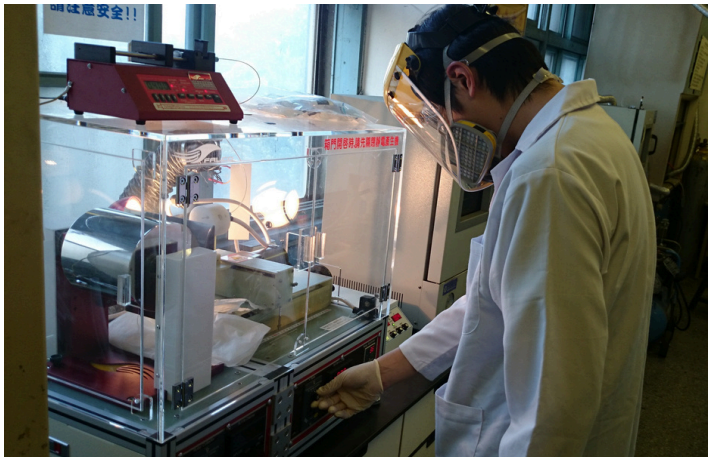
Students can utilize diverse elective and self-arranged courses or actively participate in campus activities to discover their interests, gain a deeper understanding of various departments, and enrich their learning experiences.

Professional and Interdisciplinary Teaching System

In response to industrial upgrading and the professional demands of Industry 4.0 intelligent production, the Talent Cultivation Program in the School of Engineering offers a professional and interdisciplinary teaching system that integrates theory with practice.

Focus on Engineering Innovation and Creative Engineer Cultivation

Major selection is conducted entirely based on students' preferences and interests, with no restrictions or conditions applied, ensuring a personalized and interest-driven educational path.



PRIMARY RESEARCH AREAS

For details, please refer to the information of the four major professional fields within the School of Engineering: the Department of Mechanical and Materials Engineering, the Department of Chemical Engineering and Biotechnology, the Department of Electrical Engineering, and the Department of Computer Science and Engineering.

CORE COURSES

"Introduction to Engineering Education," offered as a cornerstone course in the first semester, introduces the overall structure of the School of Engineering. This course guides students to understand the characteristics, development directions, research, and employment prospects of each professional field, thereby assisting them in making informed decisions when declaring their major.

CONTACT

TEL: 02-21822928 #6332

WEB SITE: https://ecf.ttu.edu.tw/p/412-1055-227.php

COLLEGE OF MANAGEMENT

DEPARTMENT OF BUSINESS AND INFORMATION MANAGEMENT

ABOUT US

Our department cultivates interdisciplinary professionals with both management and information technology competencies, focusing on corporate digital transformation. We emphasize cross-disciplinary communication and digital tool application through a comprehensive and diverse curriculum. Graduates from our program leverage information technology and management expertise to assist enterprises in resolving operational challenges, enhancing competitiveness, and adapting to evolving market dynamics.

PRIMARY RESEARCH AREAS

- AI Big Data：Big Data Analytics, Business Intelligence, Data Warehousing, Data Mining, Social Network Analysis, Artificial Intelligence, Computational Intelligence, Deep Learning, Internet of Things, Chat Robot, Cloud Computing
- E-Business ： Service Science, Electronic Commerce, Information Security, Customer Relationship Management, Enterprise Resource Planning, Robot Process Automation
- Digital Marketing ： E-Marketing, Consumer Behavior, Marketing Research, Advertising, Retailing Management, Application Of Statistical Methods
- Management ： Investment , Financial Market, Analysis Of Financial Statements, Global Industrial Analysis, International Business, Quality Control

CORE COURSES

Undergraduate

Accounting, Economics, Statistics, Marketing Management, Production and Operation Management, Financial Management, Human Resource Management, Organizational Behavior, Strategic Management, International Business, Computer Programming, Data Structure, Management Information Systems, Database Management, System Analysis and Design, Business Data Communication, Information Security, Business Intelligence System, Cloud Computing, Big Data Analytics

MBA and EMBA Program

Managerial Economics, Consumer Behavior, Marketing Research, Human Resource Management, Production and Operation Management, Corporate Finance, Strategic Management, Management Science, Research Methods, Digital Marketing Analytics, Deep Learning, Text Mining, Block Chain

Course Requirements:

- Undergraduate: 87required credits plus a minimum of 41 optional credits.
- MBA degree: 10 required credits plus a minimum of 30 optional credits.
- EMBA: 10 required credits plus a minimum of 27 optional credits.

CONTACT

TEL: +886-2-21822928 ext.6787

WEB SITE: https://mis.ttu.edu.tw

INTERNATIONAL COLLEGE

DEPARTMENT OF APPLIED FOREIGN LANGUAGES

ABOUT US

The Department of Applied Foreign Languages, established in 2008, is an academic department in the College of Business Management at Tatung University (TTU), which is renowned for its science, engineering, and business education. The Department aims to nurture students to acquire language skills with a special focus on skills applications in professional areas through a variety of courses designed. It also aims to strengthen students' interdisciplinary skills and interpersonal abilities developed upon their awareness of their roles in relation to others, and to help students develop a global view.

Key Objectives for the Students

- To possess the ability to use foreign languages proficiently and professionally.
- To possess cross-cultural awareness and the ability to work as a team.
- To be socially aware and caring, and to recognize the globe as a whole community.
- To be able to think independently and critically, and to learn continually.

PRIMARY RESEARCH AREAS

Students should choose one of the four areas as the focus to prepare for their future career and continue to strengthen their abilities. Please note that courses in the module of "Interdisciplinary Science and Technology" are mainly taught in Chinese.

The professional curriculum consists of four modules

- Foreign Language for Business and Professional Communication
- Translation and Interpretation Studies
- Foreign Language Teaching
- Interdisciplinary Science and Technology

CORE COURSES

Introduction to Linguistics, English Conversation, English Pronunciation and Oral Practice, Writing in English, Reading in English, Introduction to Literary Works, Aural-oral Training in English, Japanese Grammar and Sentence Patterns, Japanese Conversation.

Course Requirements

Requirements for a degree of Bachelor of Arts in Applied Foreign Languages: 128 credits of courses

FEATURES

- The development of English and Japanese language skills is heavily emphasized.
- Students are allowed to select courses interdisciplinarily. We encourage, but do not require our students to participate in courses offered by other departments and colleges to enhance their adaptability and versatility.
- We encourage our students to actively be part of the international community. By taking advantage of our collaboration with our sister schools worldwide, students may participate in both domestic and international exchange programs.
- AFL is in an industry-government-institution collaboration contract with the local government of Yokote City, Akita Prefecture, Japan. Each year, the Yokote City Government offers a range of international internship opportunities for our students.
- To strengthen knowledge-action integration to boost students' competitiveness in terms of employability, AFL invites professionals from the industries to jointly develop the curriculum for the practical courses.

CONTACT

TEL: +886-21822928 ext.7542

WEB SITE: https://afl.ttu.edu.tw

EMAIL: pychen@gm.ttu.edu.tw

COLLEGE OF DESIGN

DEPARTMENT OF INDUSTRIAL DESIGN

ABOUT US

Founded in 1966, our Industrial Design department fosters creativity and equips students with the skills to design solutions that address real-world challenges. Our postgraduate program offers a comprehensive exploration of industrial design. Students learn to design products that meet consumer needs and succeed in the marketplace, explore how design can create positive change and address social issues, and dive deep into the latest research areas in industrial design.

Tatung's Industrial Design program is recognized for its excellence. We're ranked **4th in Asia Pacific and 18th in the World**.

We are **regular winners** in local and global design competitions and **4-time winners** of the prestigious "Best of Best" award in the Red Dot design competition.

Many of our alumni working in top consumer electronic companies, car and UI/UX industries are invited as guest lecturers and mentors and offer students real-world insights and **industry-relevant skills**.

FEATURES

- Balance between theory and practice
- Small group teaching and individual guidance
- Diverse fields of learning
- Actively promoting international exchanges
- Competency-Based Education to meet industry needs
- The very first and most operative Makerspace in Taiwan

PRIMARY RESEARCH AREAS

- Human Factors
- Product Form
- Design Thinking
- UI/UX
- Design Strategy and Management
- Service Design
- Circular Ecosystem Design

CORE COURSES

Undergraduate

Drawing, Human Factors, Design Methods, Product Design and Development, Computer-Aided Design, Color Theory, Workshop Practice, Graphic Design, Mechanical Design, Manufacturing Processes.

Postgraduate

Research Methods, Design of Experiments, Perception and Preference Study, Universal Design, Color-design Study, Design Management.

Course Requirements

Requirements for a B. Des. degree of Science: 128 credits of courses

Requirements for a M. Des. Master degree of Science: 38 credits of courses

CONTACT

TEL: +886-2-21822928 ext.6720

WEB SITE: https://id.ttu.edu.tw

EMAIL: chsu@gm.ttu.edu.tw

COLLEGE OF DESIGN

DEPARTMENT OF DIGITAL MEDIA DESIGN

ABOUT US

The Design College of Tatung University was ranked as Top 10 design school in the Asia Pacific region and Top 20 in Global. The Department of Digital Media Design is located in the elite section of the city center of Taipei, with convenient transportation and rich cultural gatherings, such as Taipei Fine Arts Museum, National Palace Museum, Huashan 1914 Songshan Cultural and Creative Park.

The Department of Digital Media Design offers two tracks: Interaction Design and Game Design. The curriculum includes Basic Design, Design Aesthetic, Interaction Design, HCI, UI/UX design, Augmented Reality/Virtual Reality, Color Design, Game Design, Table-Game design, 2D/3D Animation, Scenario Design, Design Method, Photography, Handheld Application Design, Digital Music, etc.

Various domestic and international performances, exhibitions, and design competitions are provided to enhance competitiveness and gain industry-university exchanges.

Many invited and visiting professional designers join the faculty to develop students' humanistic and artistic accomplishment and information technology integration capability.

FEATURES

Diverse and advanced design disciplines gather together, including Human-Centered Design, UI/UX Design, Interaction Design, Game Design, Kansei Engineering, Color Science, Design Methodology, Service Design, Design Management, most notably together with artificial intelligence and extensive data application.

Students have various opportunities to exchange with famous design schools in Euro, US, and Japan, aiming to cultivate advanced media designers with a global vision for future needs.

PRIMARY RESEARCH AREAS

- Interaction Design
- UI/UX Design
- Game Design
- Visual Design

CORE COURSES

Interaction Design, Game Design, UI/UX Design, Service Design, Design Sketch, Color Science, Photography, 2D/3D Animation, Digital Music, Design Methods, Portfolio Design, Project Design

Course Requirements

128 credits for a Bachelor of Design.

CONTACT

TEL: +886-2-77364851

WEB SITE: https://dmd.ttu.edu.tw

EMAIL: pylin@gm.ttu.edu.tw

COLLEGE OF DESIGN

THE GRADUATE INSTITUTE OF DESIGN SCIENCE

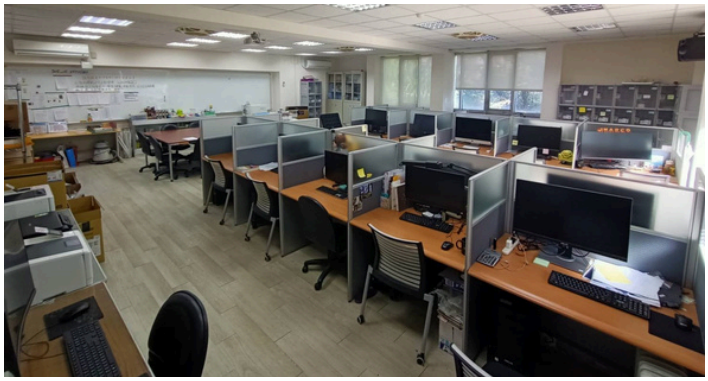
ABOUT US

The Graduate Institute of Design Science offers doctoral degree with the specific goal of increasing the leaders of next generation with ability not only in developing creative, comprehensive, and scientific design of solutions to solving the complex problems, but also creating a better world for human beings.

FEATURES

The Graduate Institute of Design Science is a leading doctoral degree program for highly creative and motivated professionals who wish to conduct rigorous, intensive design research. The Graduate Institute of Design Science research is often multidisciplinary and encompasses a broad range and combination of theoretical, applied and technological topics that represent the cutting edge of applied design investigation. Research topics are proposed during admission and are decided upon entry into the program. Student research should align with current faculty research interests, allowing for affiliations with faculty and, possibly, the research labs. Applicants are expected to clearly articulate their research topics in the application by submitting a concise and well-structured research proposal.

If you are prepared to embark on a challenging, focused, and meaningful experience, we invite you to explore the possibilities in our PhD Program.



PRIMARY RESEARCH AREAS

- Design and Image Communication
- Ergonomics of Design Cognition
- Design Strategic and Management
- Interactive Media and Space Design
- Technology Integration of Interactive Design
- Virtual Reality
- Universal Design
- Design Culture & History
- Service Design, Marketing and Management

CORE COURSES

Virtual Reality, Design Image, Perception and Preference Study, Universal Design, Color-design Study, Design Information Management, Cultural Product Creativity, Design Management, Topics on Design Science

Course Requirements

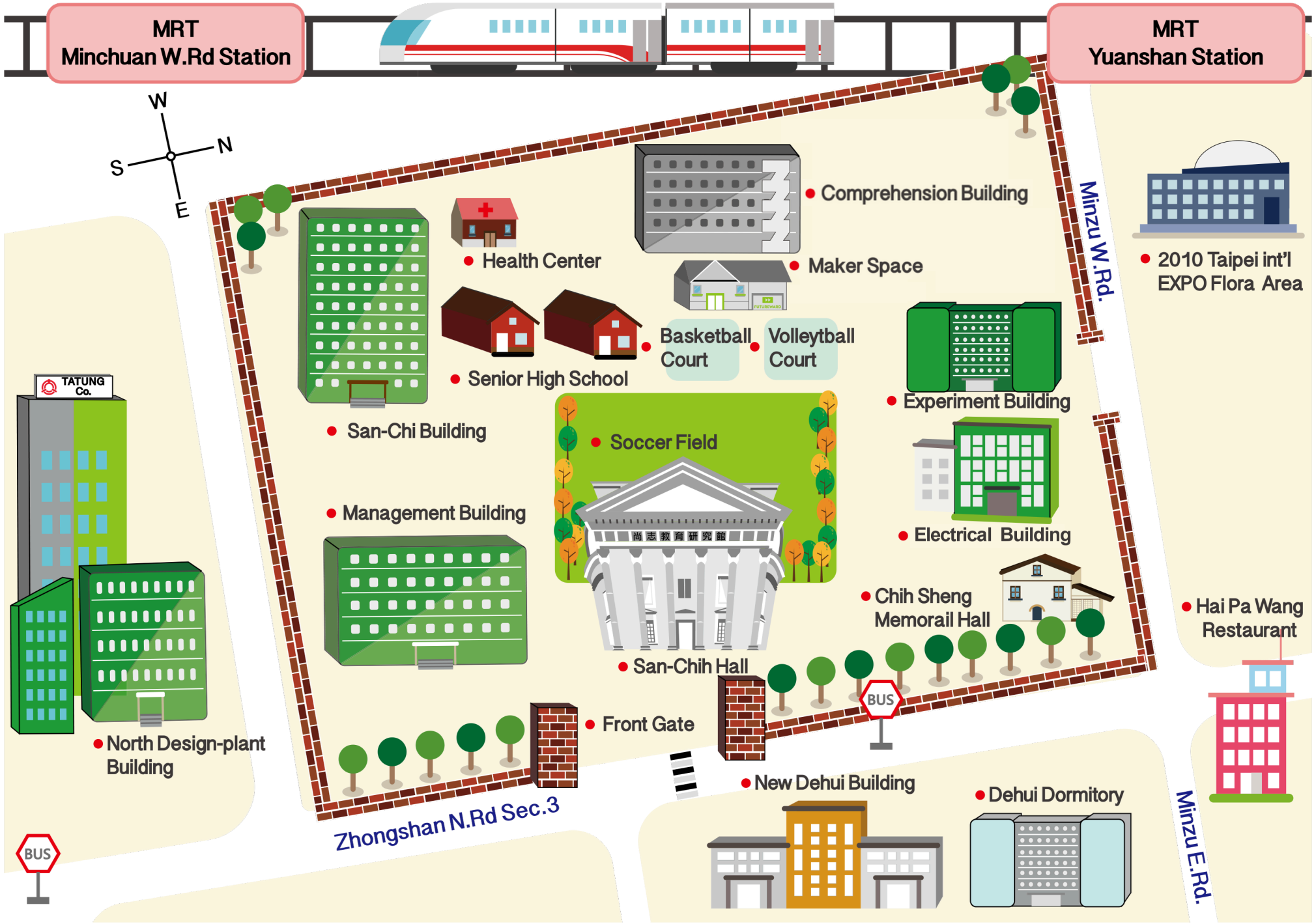
Requirements for a PhD. degree of Design: 37 credits of courses

CONTACT

TEL: +886-2-21822928 ext.6232

WEB SITE: https://ds.ttu.edu.tw

EMAIL: cyfan@gm.ttu.edu.tw


MRT
Minchuan W.Rd Station
MRT
Yuanshan Station
W
S
N
E
Comprehension Building
Minzu W.Rd.
2010 Taipei int'l
EXPO Flora Area
Health Center
Maker Space
Basketball
Court
Volleyball
Court
Senior High School
Experiment Building
San-Chi Building
Soccer Field
Electrical Building
Management Building
Chih Sheng
Memorail Hall
Hai Pa Wang
Restaurant
San-Chih Hall
BUS
Front Gate
New Dehui Building
Dehui Dormitory
Minzu E.Rd.
TATUNG
Co.
North Design-plant
Building
BUS
Zhongshan N.Rd Sec.3

- College of Engineering
- College of Management
- International College
- College of Design

Tatung University

No.40, Sec. 3,Zhongshan N. Rd., Taipei City 104, Taiwan(R.O.C)
http://www.ttu.edu.tw/