Introduction To Department and Institute of Civil Engineering and Environmental Informatics

1. Education Objectives

- To educate civil engineering and environmental informatics students to possess professional skills, cross-disciplinary integration and coordination capabilities, humanistic quality, and an international perspective.
- Students are expected to be able to undertake the design, construction, management, inspection, and control of civil engineering and environmental informatics projects.
- To promote the upgrading of domestic industries, strengthen national strength, and benefit society.

2. Specialties

One of the most distinctive features of our department is that under the university's "Whole Person Education" standard, we cultivate students who can balance specialization and general knowledge, academic accomplishment and personality, be able to manage their own whole-person wellness – intellectual, spiritual, physical, and mental/social/emotional during undergraduate years and beyond. We strive to balance and coordinate specialized courses and general courses. We attemt to improve students' specialized and humanistic qualities, and most importantly, cultivate students' employability.

All teachers in the department (institute) are toward applying various modern information tools in teaching and studying processes, and combining the connotation and practice of the

specialized courses in the classrooms. Our educational system breaks away from traditional teaching methods through engineering visits, academic seminars, and project practices. Therefore, the study environment of our students is similar to the actual work environment, thus they can develop their creativity and personal potential. We always pay attention to the interaction between teachers and students. In addition to caring for students through the tutor system, regular academic and recreational activities shorten the distance between teachers and students to achieve better teaching and guidance effects.

Most of our specialized courses have shifted from traditional teaching methods to modern methods to maximize each student's ability, personal potential, and creativity. In this free and diverse independent learning environment, students' employment choices will also be pragmatic, in line with their own aptitude and future development. In addition, most of the teachers in our department are currently actively engaged in many research proposals and industrial cooperations are mainly practice-oriented. By interweaving some parts of those research proposals and industrial cooperations with the content of the specialized courses, we strive to help students to grasp the employment market trends, understand the industry's future development and plan carefully, in line with the social political and economic trends.

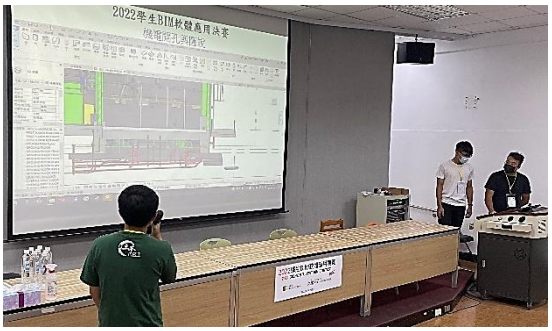
3. Specialized Courses

Our specialized courses include (but are not limited to) in-depth cultivation in the fields of soil mechanics, engineering drawings, engineering surveying, construction project management, and environmental disaster prevention. They can be classified into two disciplines: (1) The basic specialized courses which focus on the theory of specialized knowledge, such as soil mechanics and statics in civil engineering, and also focus on the practical skills such as concrete proportioning, engineering measurement, building information modeling (BIM), engineering computer-aided design (AutoCAD), etc., and (2) the advanced specialized courses which focus on helping students obtain professional certifications that certify their competences and will be helpful to their future

careers.

Compulsory courses: Through flexible teaching methods, supplemented by sufficient and novel teaching aids in the laboratory, compulsory courses emphasize practical tasks and train students through the special projects.

Elective courses: Offered according to the develop direction of the department, including engineering survey practice, water and soil conservation engineering, engineering geology, introduction to environmental engineering, bridge engineering introduction to environmental engineering, bridge engineering.



4. Teaching equipment

Teachers: Our department has 9 professional teachers, of which 2 have the qualifications of assistant professor or above (doctoral degrees). Besides, the department actively invites well-known experts in the industry to be the lecturer for our special elective courses, so that the teaching can combine industry and learning, and pay equal attention to theory and practice.

Equipment: We have 3 professional laboratories, and the equipment belongs to various professional fields, including: soil mechanics experiment /measurement experiment, spatial information experiment, drone operation/ concrete experiment, etc.

5. Graduation vision

Employment: The university is adjacent to the Hsinchu Science Park and Hsinchu Industrial Zone, and has always interacted well with the industry. After graduation, you can find nearby construction

factories, architects, technician offices, construction companies, material suppliers, property management companies, environmental landscape engineering companies, interior design and real estate management.

Graduate programs:

1. Domestic advanced studies: Research institutes in civil engineering, environment, and other fields of public and private universities.
2. Further study abroad: Through the international exchange center of the school, apply for overseas related program.