

04

QUALITY EDUCATION



2019-2023
Publications

161



2019-2023
Percentage of all
Taiwan Publications

4.1%



Course Units

5,473



Student Engage-
ments with Units
on SDG 4

92,009

Research

Open Educational Resources

The 2023 Open Education Global Conference was held from October 16 to 18 at the Edmonton Conference Center in Canada. The conference theme was "Building a Sustainable World Through Open Education." Professor Ta-Wei Li from the Department of Applied Chemistry at our university presented a teaching method for the interdisciplinary course "Principles and Practice of Virtual Chemistry Laboratories" during the conference. He also introduced using ChemCollective Virtual Lab to design new virtual chemistry experiments. This software, developed by Professor Yaron and his team at Carnegie Mellon University, allows students to conduct and create engaging chemistry experiments via computer. This method promotes a deeper understanding of the relationship between chemical reactions and fundamental scientific principles, making it a recommended open educational resource.

The World's First Chinese-Language Open Textbook

Professor Shu-Chen Chiang from our College of Hakka Studies published an important paper introducing the Hakka-language multimedia open textbook "Self-Healing of a Youngster—A Hakka Youth Book Adaptation of Kan Yao-ming's 'Killing Ghosts'." This textbook, adapted by student Xu Guang-zhi and illustrated with Zhang Wan-ru's picture book, is the first of its kind in Taiwan and globally in Chinese. It preserves Taiwan's Hakka linguistic heritage and includes important geographical, historical, and cultural concepts related to the Hakka community. The material is supplemented with Hakka language readings and CC-licensed historical audiovisual resources to promote the localization and decolonization of Hakka language courses, making it suitable for upper elementary students and older youth.



Social Impact

Partnering with Local High Schools to Promote AIoT Smart IoT Digital Education

To align with the government's curriculum guidelines for national education in the field of technology, our university's Social Responsibility Promotion Office has signed an educational partnership memorandum with Private Chung-Hsin School, Zhong-xiao Junior High School, and Dong-xing Junior High School in Hsinchu County. The goal is to advance technology education and talent development. Professor Kuei-Ann Wen, Executive Director of the Social Responsibility Promotion Office, shared our university's experiences in AIoT smart IoT digital education at Chung-Hsin School. In the initial phase of the collaboration, Chung-Hsin School provided venues and equipment, focusing on the "AIoT Smart IoT Digital Education Promotion Project," which integrates practical sensor courses with Scratch interactive game design. This initiative aims to enhance students' technological literacy and innovative thinking skills, injecting new vitality into Hsinchu County's education and cultivating young talent with technological creativity.

Hosting the "Semiconductor and Chip Design Science Camp"

In collaboration with Synopsys, our university's Alumni Association hosted the inaugural "Semiconductor and Chip Design Science Camp," attracting 160 high school students from Taiwan and abroad. The event featured a keynote speech by Taiwan's semiconductor authority, Professor Jack Sun, current Dean of the School of Industrial Academic Innovation. The camp also arranged for students to visit cleanrooms, practice soldering circuit boards, and engage in programming activities. The event aims to cultivate future semiconductor talent, helping students gain in-depth industry knowledge and inspire their interest. Taiwan's semiconductor industry is currently facing a talent shortage, and this camp is part of a long-term solution. The program will continue to expand in the future.

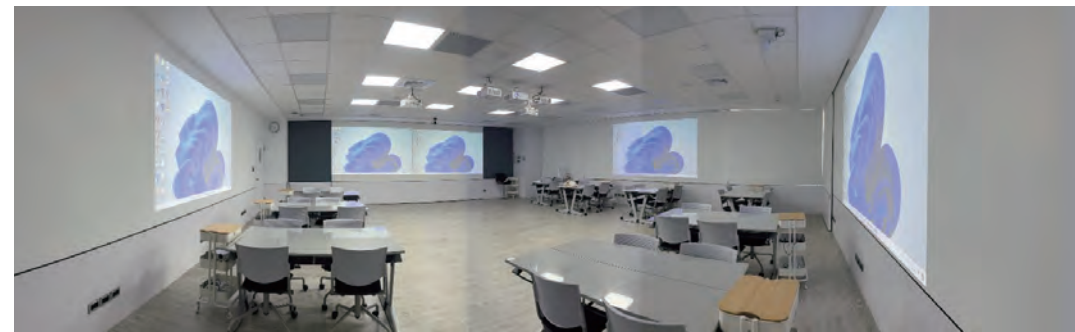
Education & Cultivation

Cross-campus Distance Learning

Since the merger in 2021, the school has made significant progress in information system integration and campus infrastructure construction, and it strives to provide a high-quality teaching and research environment to promote further development of academia and industry. The school has unified the wireless network services of the nine campuses, improved the network facilities at the Beitou campus, and increased the network speed in the dormitories to 1Gbps. In addition, the school is committed to cross-campus and cross-field learning. Through distance teaching classrooms and video conferencing software, it overcomes geographical limitations and supports cross-learning in medical biology and information engineering.

"Hakka Society and Culture Master's Credit Course" Opened

The School of Hakka Culture of our school collaborated with the Hakka Affairs Committee of the Taichung City Government to open the "Hakka Society and Culture Master's Credit Class" at the Shancheng Hakka Center in September 2023. Professor Hung-Yu Chang will offer the "Hakka Documentary Planning and Production" course, benefiting students from mountain cities. It is the first time the Hakka Culture Institute has launched a master's degree in-service class outside the school. The course covers practical techniques such as digital photography and editing and will produce Hakka-themed videos. This move provides opportunities for students in Taichung City to further their studies, promotes research on Hakka culture, and deepens the Hakka ethnic economy in Taichung.



04 QUALITY EDUCATION

Stewardship

The Affiliated Senior High School of National Yang Ming Chiao Tung University

Our university has signed a memorandum of cooperation with National Chu-Pei Senior High School to transition to the Affiliated Senior High School of National Yang Ming Chiao Tung University, which has officially entered the legal process. Our university, with its advanced facilities, resources, and outstanding faculty, along with a wealth of reputation and alumni resources, will use its strengths in the humanities and social sciences, biomedical sciences, AI, and engineering fields as a foundation in the future. Through a series of courses and research projects, we will extend higher education to high school students, helping them become more familiar with emerging fields and explore their interests and career directions early on. Additionally, this initiative will assist high school teachers in accessing advanced academic and technological achievements. Starting from the 113th academic year, the "Yang Ming Chiao Tung University Master Classes" (covering international humanities, electronic information, and biomedical sciences) will be gradually launched. These classes aim to strengthen Chu-Pei Senior High School in areas such as social humanities, biomedical fields, cutting-edge AI, bilingual literacy, international mobility, STEAM education, and industry-academia co-creation, balancing local care with an international perspective, and emphasizing both scientific inquiry and humanistic cultivation.



Winning the "Industry Co-Creation Model Award" at the Global View USR University Social Responsibility Awards

Our university participated for the first time in the 2023 Global View USR University Social Responsibility Awards and won the "Industry Co-Creation Model Award" with the project "Linking Industry, Government, and Academia to Enhance Technological Competence—Talent Cultivation in the Semiconductor and Key Technology Industries." In 2023, there were 120 competing projects, but only 23 were awarded, resulting in a win rate of just 19.1%. Through curriculum teaching, employment guidance, and career counseling, our university has established local connections with businesses, creating a lifelong learning environment. In collaboration with the Taoyuan-Hsinchu-Miaoli Branch of the Workforce Development Agency under the Ministry of Labor, this project provides training for talent in the semiconductor and key technology industries. The project aims to address the talent shortage in the high-tech industry and improve salary conditions. Our university is committed to nurturing top engineers while also assuming social responsibility, and through talent development, it has become a vital force in promoting sustainable development for local communities and industries.