University   :   National Chin-Yi University of Technology
Country   :   Taiwan
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[SDGs 17] Partnership for the Goals 全球夥伴

[17.3.4] Please indicate if your university publishes progress against SDG4

NCUT is committed to ensuring inclusive, equitable, and high-quality education for all students while promoting lifelong learning opportunities for the community. The university integrates inclusive learning initiatives with **Information and Communication Technology (ICT)** innovations to enhance teaching quality, expand access, and support sustainable development goals.

Inclusivity and Equal Access

- **Support for Disadvantaged Students:**

  NCUT offers targeted scholarships, tuition waivers, and learning support programs for economically disadvantaged students, students with disabilities, and those from rural areas.

- **Accessible Learning Environment:**

  Campus facilities comply with universal design standards, ensuring barrier-free access to classrooms, libraries, and laboratories.

- **Lifelong Learning Opportunities:**

  NCUT's continuing education programs, workshops, and online courses are open to community members, strengthening links between the university and society.

Inclusivity & Access Indicators

Indicator	2023	2024	Notes
Scholarships & Tuition Waivers Awarded	1,260 students	1,315 students	Includes disadvantaged and rural area students
Students with Disabilities Supported	38	42	Access to assistive tech and tailored learning plans
Lifelong Learning Participants (community)	2,150	2,320	Through workshops and continuing education programs

ICT-Driven Education Implementation Framework

Stage	Activities/Programs	ICT Utilization	Evidence	Timeline	Responsible Team/Department
Planning	Development of online and hybrid learning models	Moodle, digital curriculum platforms	Course outlines, platform usage statistics	Jan 2024 – Mar 2024	Academic Affairs Office, ICT Center
Implementation	Delivery of digital courses and synchronous/asynchronous e-learning	NCUT i-Learning platform, MS Teams, Google Meet	Class recordings, participation logs	Apr 2024– ongoing	ICT Center, Teaching Resource Development Office
Monitoring	Tracking student engagement and course completion	LMS analytics, online assessment tools	Learning dashboards, grade reports	Ongoing	Academic Affairs Office, Department Heads
Evaluation	Assessing learning outcomes and improving teaching effectiveness	Online survey systems, digital feedback tools	Survey results, teaching performance reports	End of every semester	Teaching Quality Committee, ICT Center

At NCUT, education through ICT is an essential part of the university's academic and sustainability strategies. The school has established a robust digital learning environment using platforms like Moodle and the NCUT i-Learning system to facilitate planning, teaching, and assessment.

- **Planning**: NCUT incorporates ICT tools such as Moodle and Google Workspace to design digital course content. Each department collaborates with the Academic Affairs Office and ICT Center to map curricula that align with sustainability and educational goals.

- **Implementation**: With the support of the ICT Center, NCUT delivers hybrid and online classes through MS Teams and Google Meet. The university encourages faculty to pre-record lessons and engage students through online forums and quizzes.

- **Monitoring**: Student engagement and progress are tracked using LMS analytics. Teachers can monitor login frequency, test completion, and forum activity to adjust their teaching strategies in real-time.

- **Evaluation**: NCUT uses digital surveys and feedback tools to gather student evaluations of teaching effectiveness. These assessments help refine the teaching process and ensure continuous improvement in digital education delivery.

ICT-Related Indicators

Indicator	2023	2024	Notes
Online / Hybrid Courses Offered	320	355	Across all faculties
Students Enrolled in Digital Courses	7,850	8,120	Includes synchronous and asynchronous modes
Average Online Course Satisfaction Rate	87%	89%	Based on digital surveys
Faculty Trained in ICT Teaching Tools	165	182	Includes workshops on Moodle, Teams, Google Workspace

Community Education Indicators

Program Type	2023 Participants	2024 Participants	Focus Areas
Open Public Lectures	620	680	Digital literacy, green energy, entrepreneurship
Skills Development Workshops	480	505	Career readiness, emerging tech skills
Joint NGO/Government Outreach	1,050	1,135	Education access for under-served communities

Impact Summary

- **Access Expansion:** Over 1,300 disadvantaged students receive tuition or living support annually.
- **ICT Integration:** More than 8,000 students benefit from digital and hybrid courses each year.
- **Community Engagement:** Over 2,300 non-students participate in NCUT learning programs annually.
- **Continuous Improvement:** Teaching effectiveness ratings have improved by 2 percentage points in one year through ICT-based feedback loops.

A.   Improvement of Teaching Support Mechanisms

(A)   On-Campus Four-Hour Academic Tutoring for Students

To strengthen academic guidance for students and assist them in resolving academic issues, full-time faculty are required to offer at least four hours of on-campus tutoring each week after the course schedule is set for the semester. This tutoring is provided in designated locations where students can seek advice and academic support.

(B)   Teaching Assistant Support

Each faculty member is assigned a teaching assistant (TA) to assist in preparing course materials and providing support to students during or after classes, enhancing the overall learning experience. Statistics on teaching assistant appointments from the past three years are shown in Table 10.

(C)   Mentors for International Students

To assist international students in adjusting to campus life, a mentor system has been implemented to understand students' personalities, interests, talents, learning attitudes, backgrounds, language abilities, and adaptations in school. Mentors help international students integrate into school life by facilitating participation in group activities, solving problems, and providing referrals or support for various aspects such as clubs, daily life, academia, and career development. This system reduces the cultural and language barriers that international students face and promotes multicultural exchange within the campus, fostering a more inclusive environment.

Table 10: Statistics on Teaching Assistant Appointments

Academic year	Semester	Total appointments	Total subsidy funds (NT$)	Notes
2021	2021-1	592	3,704,840	Includes labor and health insurance fees for Sept-Dec 2021.
	2021-2	647	4,112,651	Includes labor and health insurance fees for Feb-Jun 2022.
2022	2022-1	646	4,145,662	Includes labor and health insurance fees for Sept-Dec 2022.
	2022-2	698	4,541,433	Includes labor and health insurance fees for Feb-Jun 2023.
2023	2023-1	685	4,415,832	Includes labor and health insurance fees for Sept-Dec 2023.
	2023-2	767	4,940,242	Includes labor and health insurance fees for Feb-Jun 2024.

(D)   One-on-One Assistance

A class teacher is assigned to each class to ensure proper assistance and better connection between teachers and students. The teacher must actively engage in class activities, maintain positive interactions, and take care of and assist with life and learning progress through individual consultations and group work. To further enhance assistance, the Consultation and Assistance Center conducts annual classes on teacher competence studies and class-teacher meetings to share techniques and tips to assist students.

▲Teacher Competence Workshop: Transforming Perspectives – How to Easily Assist Students with Emotional Distress Using Multiple Personality Disorder Case Studies

▲Class Teacher Meeting: Crisis Management for Adolescent Self-Injury

(E)   Freshman Bridge Courses and Support for Specialized Courses

To support freshmen in transitioning to their majors, NCUT organizes preparatory bridging courses, such as refresher sessions for calculus and other specialized subjects, during the summer or at the beginning of the semester.

These courses are tailored to meet the needs of students from different backgrounds and levels, and are designed to help students smoothly transition into their academic studies in specialized fields.

▲Freshman Bridge Course Support Workshop

B. Education Quality Accreditations

To enhance and elevate teaching quality, we adjust our curriculum planning to align with industry and international standards to facilitate the certification of department courses through professional education bodies, including the Institute of Engineering Education Taiwan (IEET), the Higher Education Evaluation Center Foundation (HEEACT), and the Taiwan Assessment and Evaluation Association (TWAEA), as illustrated in Table 12.

Table 12: Departments and Schools Providing Accredited and Quality-Assured Education

College	Department	IEET Accreditation	Higher Education Council Accreditation	Taiwan Assessment and Evaluation Association (TWAEA) Accreditation
College of Engineering	Mechanical Engineering	●2019/8/1-2025/12/31	●2023/7/1-2029/6/30	
	Refrigeration, Air-Conditioning and Energy Engineering	●2019/8/1-2025/12/31	●2023/7/1-2029/6/30	
	Chemicals and Materials	●2019/8/1-2025/12/31		
	Intelligent Automation Engineering [Note 1]	To be certified by the end of 2025		
	Graduate Institute of Precision Manufacturing		●2020/7/1-2026/6/30	
	Ph.D. Program, Intelligent Machinery, and Smart Manufacturing			●2024/8/1-2029/7/31
College of Electrical Engineering and Computer Science	Electrical Engineering	●2019/8/1-2025/12/31	●2023/7/1-2029/6/30	
	Electronic Engineering	●2019/8/1-2025/12/31	●2023/7/1-2029/6/30	
	Computer Science and Information	●2023/1/1-2028/12/31		
	Department of Artificial Intelligence and Computer Engineering [Note 1]	To be certified by the end of 2025		
	Prospective Tech. of E.E.C.S.			●2024/8/1-2029/7/31

College	Department	IEET Accreditation	Higher Education Council Accreditation	Taiwan Assessment and Evaluation Association (TWAEA) Accreditation
College of Management	Industrial Engineering and Management	●2019/8/1-2025/12/31		
	Business Administration			●2024/8/1-2029/7/31
	Distribution Management			●2024/8/1-2029/7/31
	Information Management	●2022/1/1-2024/12/31		
	Department of Healthcare Industry Technology Development and Management [Note 2]	Self-evaluation by the department completed on Nov. 28, 2023		
	Master program in Smart Manufacturing and Applied Information Science [Note 1]	To be certified by the end of 2024		
College of Humanities and Creativity	Applied English		●2020/7/1-2026/6/30	
	Cultural and Creative Industries		●2020/7/1-2026/6/30	
	Landscape Architecture		●2020/7/1-2026/6/30	

Notes:
1. The International Master's program in Smart Manufacturing and Applied Information Science is scheduled to undergo IEET (Institute of Engineering Education Taiwan) accreditation by the end of 2024. The Department of Intelligent Automation Engineering and the Department of Artificial Intelligence and Computer Engineering, both established in August 2022, plan to seek IEET accreditation in 2025.
2. The Department of Leisure Industry Management was renamed to the Department of Healthcare Industry Technology Development and Management in August 2023. The department completed its self-evaluation on November 28, 2023. After 1-2 years of operation, the department plans to commission a professional evaluation agency for accreditation.

D. Self-Directed Learning

(A) Self-Directed Learning Under Pressure

A three-hour anti-stress self-directed learning course to develop students' ability to adapt to the workplace, improve communication and coordination skills, and develop basic abilities to relieve and manage stress. Statistics on self-directed learning under pressure courses over the past two years are shown in Table 13.

Table 13: Statistics on Self-Directed Learning under Pressure

Academic year	Number of courses	Participants	Total course hours
2022	9	351	25
2023	40	1332	40

▲ Calm and Embrace Life: Meditation, Healing, and Stress Relief

▲ Emotions Reflect Our Existence!

▲ Turning Life's Challenges into Motivation: Transforming Stress into Strength

▲ Workplace Experiences and Balancing Life with Leisure

(B) Social Integration through Self-Directed Learning

Students are encouraged to utilize their skills and talents by volunteering for various service roles to support university-organized activities, service camps, and teaching or administrative tasks. Students are required to complete a total of 24 hours of self-directed learning services or activities before graduation. Service hours are recorded and certified online by the relevant units. Recent statistics are summarized in Table 14 below.

Table 14: Statistics on Social Integration through Self-Directed Learning

Academic year	Certified participants	Certified hours
2022	1,500	24
2023	2,500	24

▲ IT Volunteers Serving Rural Areas

▲ Volunteering at Pinglin Police Station

▲ Beach Cleanup Volunteers

▲ Community Environmental Protection Volunteers

▲ Caring for Stray Animals Volunteers

(C) Enhancing Self-Directed Learning

A three-hour online training course on electronic resources offered by the library to help students understand the types, search methods, and usage of electronic resources, improving their information literacy and independent research capabilities. It aims to develop self-directed learning and problem-solving skills. Statistics from the past two years are shown in Table 15.

Table 15: Statistics on Enhancing Self-Directed Learning

Academic year	Number of courses	Participants
2022	10	366
2023	10	738

▲ Poster for Electronic Resource Training – Fall of Academic Year 2022

▲ Poster for Electronic Resource Training – Spring of Academic Year 2022

▲ Poster for Electronic Resource Training – Fall of Academic Year 2023

▲ Poster for Electronic Resource Training – Spring of Academic Year 2023

NCUT, along with 11 universities participating in a cross-school course selection program in collaboration with Taiwan National University, recently formalized a significant partnership by signing a cooperative agreement.

In recent years, NCUT has intensified its commitment to enhancing the quality of education. In addition to actively engaging in information exchanges and collaborations with foreign sister universities, the university has also embarked on partnerships and course planning with domestic institutions.

鼓勵措施 Incentivizing Measures

本校研究發展處以「鼓勵教師進行多元化之學術研究」、「推動學校與公民營企業產學合作與技術研發」、「協助在地產業發展與升級」、「強化校內外實習功能，力求學校教育能與產業技術結合」、「落實課程與實務結合，培養學生創意發明及實作能力」為目標，期透過與企業界之結合，一方面培養學生實用的專業技術，一方面整合學校與業界資源，建構技術研發平台，共同研發新產品或新技術，以厚植學生、學校與企業之共同競爭力。

籌組跨領域教師研發團隊：鼓勵不同專長教師與企業共同成立跨領域專案特色研發團隊，提供技術研發、諮詢、輔導及技術移轉等服務，以新興技術研究發展為目標，並簽訂合作備忘錄來強化產業鏈整合。

本校參加臺灣國立大學系統（https://nust.edu.tw/exchange.php），為增進與本系統其他各校學生跨校學習交流，善用各校之專業特色，培養跨領域專業人才。

The Research and Development Office of NCUT encourages faculty to engage in diverse academic research, promotes industry-academia collaboration, and supports local industry development. It also enhances internships to integrate education with industrial technology, aiming for curriculum-practice integration to cultivate students' creativity and practical skills.

Through collaboration with businesses, NCUT helps students develop hands-on expertise while leveraging academic and industry resources to build a technology R&D platform. This facilitates the development of new products and technologies, enhancing the competitiveness of students, the university, and enterprises.

The Research and Development Office has also established regulations and guidelines to support faculty in advancing research and technology. It encourages teachers and enterprises to form interdisciplinary R&D teams to provide technology development, consulting, mentoring, and technology transfer services. These teams focus on emerging technologies and sign cooperation memorandums to strengthen industrial chain integration.