



Times Higher Education
**Sustainability
Impact Ratings**

SDG

4

Quality Education



SDG 4.2.1 Proportion of graduates with relevant qualification for teaching

Number of graduates

In 2024, our university had a total of 2,139 graduates (Figure 1). The breakdown is as follows:

1. ISCED 6 bachelor's degree: 1,156 graduates.
2. ISCED 7 master's degree: 902 graduates.
3. ISCED 8 PhD degree: 81 graduates.

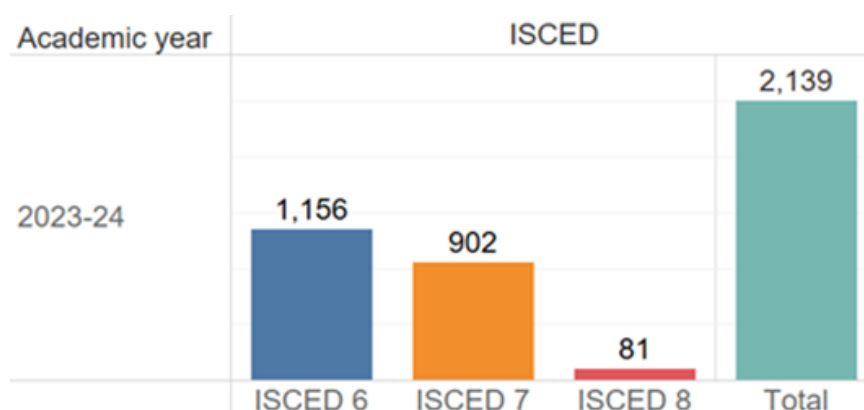


Figure1. Number of NCUE graduates in 2024

Number of graduates who gained a qualification that entitled them to teach at primary school level

National Changhua University of Education (NCUE) is an institution for secondary education teacher training. In 2024, a total of 326 individuals obtained teaching qualifications.

1. ISCED 6 bachelor's degree: 264 people
2. ISCED 7 master's degree: 62 people
3. ISCED 8 PhD degree: 0 people

Supplementary Information (Including Course Content):

Taiwan's Ministry of Education implements a quota mechanism for the total number of students enrolled in Teacher Education Programs across universities and colleges in Taiwan. In 2024, the Ministry of Education approved a quota of 650 pre-service teachers for NCUE. Students must first obtain eligibility as pre-service teachers before enrolling in pre-service teacher education courses, which encompass three major dimensions: General Courses, Professional Education Courses, and Specialized Courses. Only upon completing all required courses can students be granted the "Pre-Service Teacher Education Completion Certificate." Subsequently, students must pass the Teacher Qualification Exam (TQE) and receive a satisfactory evaluation during their educational practicum to obtain their teacher certificates, which confer the formal qualification for teaching as a teacher.

In 2024, 616 graduates in NCUE were pre-service teachers. Among them, 466 students completed the

pre-service teacher education courses required in the Teacher Education Program and obtained the “Certificate of Completion of Pre-Service Teacher Education,” representing 75.6%. Furthermore, a total of 326 students subsequently passed the Teacher Qualification Exam, accounting for 52.9%, as detailed in Table 1.

Table 1: Number of Recipients Awarded the Certificate of Completion of Pre-service Teacher Education and the Teacher Certificates in 2024

ISCED Level	Recipients Awarded Certificates of Pre-Service Teacher Education	Recipients of Teacher Certificates
ISCED 6	386	264
ISCED 7	80	62
ISCED 8	0	0
Total	466	326

To enhance pre-service teachers’ educational professional knowledge and teaching competencies, in addition to offering Professional Education Courses, NCUE implements various initiatives including holding lectures and workshops, organizing reading groups for pre-service teachers, inviting practicing schoolteachers to collaborative teaching, and offering courses in collaborative lesson study (co-planning, class observation, and post-lesson discussion), to strengthen their professional capabilities of pre-service teachers. The details are as follows:

1. Professional Education Courses: For the Educational Program for Secondary School Teachers, students are required to complete a minimum of 26 credits in professional education courses. The curriculum map is available on the official website (<https://practiceweb.ncue.edu.tw/p/412-1007-675.php?Lang=zh-tw>). The program includes four dimensions: educational foundation courses, educational methodology courses, educational practice courses, and elective courses:
 - (1) Educational Foundation Courses: Students must complete at least 2 courses (4 credits). Course offerings include Introduction to Education/Introduction to Education (Bilingual), Educational Psychology/Educational Psychology (Bilingual), Sociology of Education, and Philosophy of Education.
 - (2) Educational Methodology Courses: Students must complete at least 4 courses (8 credits). Course offerings include Principles of Instruction and Principles of Instruction (Bilingual), Learning Assessment, Classroom Management, Instructional Medium, Curriculum Design, and Principles and Practice of Guidance.
 - (3) Educational Practice Courses: Students must complete at least 10 credits. Among these, at least 1 subject (4 credits) must be taken in Instructional Materials & Methods in Specialized Subjects/Fields (Group) and Teaching Practicum in Specialized Subjects/Fields (Group). Additional course options include Teaching Application and Practice, Practice and Service Learning in Secondary Education, Topics in Education Issues, Teaching Professional Practice,

Cross-Disciplinary Teaching Application and Practice, Teacher Career Planning and Professional Development, and Transdisciplinary Curriculum Design and Teaching.

- (4) Elective Courses: Students must complete at least 2 courses (4 credits), Course offerings include Introduction to Special Education, Remedial Teaching, Adaptive Instruction, Reading Education, Adolescents Psychology, Educational Administration, Techniques of Behavior Modification, School Administration, Science Education, Teaching Practicum in Secondary Education, Computer and Instruction, New Immigrant Families and Education, Scientific Inquiry and Practice, Comparative Education, Introduction to Taiwan' Indigenous Peoples, Ethnographic Fieldwork, Indigenous Education, Multicultural Curriculum and Instruction, Indigenous Languages, Vocational Education and Training, Block-Based Coding, Life Education, Human Rights Education, Local Education, Marine Education, Gender Equity Education, Multicultural Education, and Career Planning.
2. Lectures and Workshops: NCUE regularly organizes lectures and workshops to assist pre-service and student teachers in strengthening their professional competencies from diverse perspectives. For example, on June 11, 2024, NCUE held a lecture titled “Cross-Disciplinary Teacher Education – Teachers as Transformative Intellectuals: Multicultural Curriculum and Teaching,” followed by “Gender Equity Lecture for Student Teachers” on August 21. Furthermore, to equip pre-service teachers with the ability to effectively utilize AI tools and develop competencies in digital distance teaching or hybrid teaching, NCUE conducted 15 digital learning workshops in 2024. Pre-service teachers are also encouraged to actively participate in the Ministry of Education’s Digital Teaching Competency Test to refine and enhance their digital teaching capabilities.
 3. Pre-Service Teacher Reading Groups: NCUE encourages pre-service teachers to autonomously form reading groups. Through peer collaborative learning, pre-service teachers can broaden and deepen their understanding of professional knowledge and competence.
 4. Industry-Academia Collaborative Teaching: To bridge the gap between teaching theories and practical experiences, teachers invite practicing schoolteachers as co-instructors in Educational Practice Courses or Instructional Materials & Methods. This approach enables pre-service teacher to better understand the actual needs in school settings and enhances their ability to apply theoretical knowledge to problem-solving, thereby improving teaching quality and learning outcomes. In 2024, a total of 67 industry-academia collaborative teaching lectures were conducted, with 1,720 participants in total.
 5. Co-Planning, Classroom Observation, and Post-Lesson Discussion: NCUE collaborates with secondary schools to develop educational practice courses, refining pre-service teachers' learning through classroom observation and post-lesson discussions. These courses enhance pre-service teachers’ ability to establish their learning portfolio records, strengthen the growth of their educational professional knowledge and competencies. In 2024, NCUE collaborated with 20 partner schools to conduct 93 such activities.
 6. Student Teacher Return-to-Campus Seminars: To strengthen the effectiveness and quality of

educational practicum for student teachers from NCUE, NCUE organizes return-to-campus seminars to disseminate administrative information regarding educational practicum, and assist student teachers in familiarizing themselves with practicum procedures and matters needing attention to ensure smoothness of practicum. The seminar topics cover critical issues such as classroom management, student guidance, and educational policies, thereby strengthening student teachers' understanding of school settings and professional competencies. In 2024, NCUE held a total of 8 return-to-campus seminars, with 815 participants in attendance.



Figure 2. 2024.03.22 Student Teacher Return-to-Campus Seminars.



Figure 3. 2024.04.26 Student Teacher Return-to-Campus Seminars.



Figure 4. 2024.05.24 Student Teacher Return-to-Campus Seminars



Figure 5. 2024.11.22 Student Teacher Return-to-Campus Seminars

SDG 4.3.1 Public resources (lifelong learning)

NCUE, as an institution for secondary education teacher training in Taiwan, has long been offering **free** in-service training courses for teachers from various towns and cities. We also provide numerous **free** physical and online educational resources for individuals who are not studying at NCUE. Furthermore, NCUE opens its campus spaces, library, sports fields, and courts to the public, allowing external visitors to access these facilities and equipment.

1. **Free** Courses Leading to a Certificate or Award

NCUE regularly and periodically organizes **free** courses and workshops, providing participants with certificates or proof of attendance. The courses and workshops offered by NCUE include professional training for mathematics teachers, training for science education seed teachers, English teaching resources and courses, Science Fun Day, training for novice teachers, and various public lectures.

(1) Professional Training for Mathematics Teachers:

Since 2015, NCUE has been promoting the “New World of Mathematics Rooting Project.” We organize dozens of **free** seed teacher training sessions annually, with all participants receiving certification for their learning hours upon completion. The courses facilitate the integration of mathematical knowledge through observation and practical application, helping teachers understand the context of mathematical concepts and the main ideas behind the knowledge. This enables primary, junior high, and senior high school teachers to guide students in developing concepts more comprehensively and completely during instruction, as well as to adapt their teaching methods more flexibly.

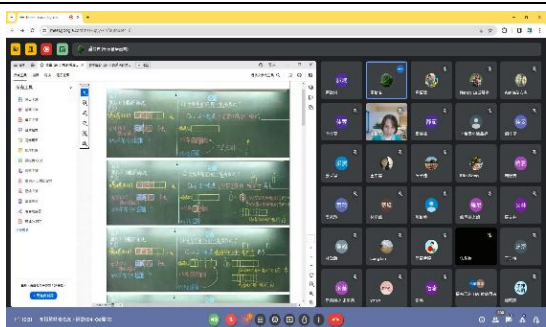
In 2024, we held Literacy Practice Instructor Training Workshops, Literacy Practice Teaching Materials and Methods Instructor Training Workshops, and Teaching Materials and Methods Workshops for Mathematics Teachers from grades 1 to 9, totaling 50 sessions (including both physical and online workshops), with 4,565 primary and secondary school teachers participating. Whether for physical or online courses, teachers can obtain certification for their learning hours upon completion of the training courses (Figure 1-6).

Project website: <http://www.nhmath.com/NH-MATH/>

Facebook: <https://www.facebook.com/nhmath.tw>

Albums: https://www.facebook.com/nhmath.tw/photos_albums

Demonstration Teaching Video: <https://www.youtube.com/@NewHorizonofMathematics/videos>

	
Figure 1. 2024.01.24 Online Workshop	Figure 2. 2024.02.01 Online Workshop
	
Figure 3. 2024.03.01 In-class Demonstration Teaching at a Junior High School	Figure 4. 2024.03.18 Workshop on Teaching Enhancement
	
Figure 5. 2024.09.27 In-class Demonstration Teaching at an Elementary School	Figure 6. 2024.12.12 Workshop on Teaching Enhancement

(2) National Program for Enhancing Inquiry-Based Curriculum Design and Implementation Skills of Science Teachers in Junior High and Elementary Schools:

In alignment with the national policy to promote 12-Year Basic Education, NCUE annually offers several **free** science courses titled “Inquiry and Practice.” These courses aim to assist natural science teachers in Junior High and Elementary schools across Taiwan in continuously improving their integrated teaching professional competencies. The training cultivates teachers’ abilities to design and implement inquiry-based teaching curricula, enabling these seed teachers to embody the spirit of inquiry in their classrooms and achieve the goal of enhancing the scientific literacy of future citizens.

In 2024, a total of 15 **free** courses were held across the country, with 404 teachers participating and obtaining certification for their learning hours.

Website: <https://cirn.moe.edu.tw/Module/index.aspx?sid=1197>

Event pictures: <https://cirn.moe.edu.tw/Module/PhotoDetail.aspx?sid=1197&mid=13636&photoclassid=1021#>

(3) English Teaching Resources:

In alignment with the national policy to promote bilingual education, NCUE has developed English audio-visual digital materials and designed numerous instructional videos for teachers to utilize in their courses. To assist in-service teachers in senior high schools and vocational high schools in using these digital materials and integrating them into English teaching curricula in high schools, NCUE conducted 9 **free** educational training courses in 2024, with 207 teachers participating and obtaining certification for learning hours.

<https://www.facebook.com/adledu/posts/883600213780231/>

(4) Cultivation of Science Research Talents among High School Students:

The Department of Physics at NCUE has been running the “High School Students Talent Cultivation Program for Science Research (Physics Division)” for over a decade, providing a comprehensive one-year curriculum spanning the first and second year of senior high school. The first-year curriculum is designed to strengthen students’ fundamental physics knowledge, deepen their conceptual understanding, and cultivate students’ basic skills for conducting physics research projects. The second-year curriculum focuses on guiding students through training for experimental operation and development in research-oriented thinking, fostering students’ independent inquiry abilities. The program also includes study tours and workshops at science-related institutions, allowing students to broaden their learning experiences through diverse contexts.

Facebook: <https://www.facebook.com/NcueGifted>

Project Website: <http://phys5.ncue.edu.tw/gifted/index.htm>

Video: <https://www.youtube.com/watch?v=c8DaaYvdDz4>

(5) Science FUN Day:

To improve the scientific literacy of the citizens, cultivate a scientific attitude in daily life, and provide students in remote areas of Changhua County with the opportunity to learn high-quality scientific knowledge, NCUE holds the “Science FUN Day” for **free** once a year. Exciting and interesting challenge games related to science are set, and the participants can conduct DIY scientific experiments to experience the thrills of science, thereby enabling the public to integrate logical thinking and scientific attitudes into their lives.

In 2024, challenge games related to science were designed for the public and students to obtain knowledge easily and learn science in a fun way. The challenge games covered Science Magic Zone, Science Adventure Zone, and Science Exploration Zone. Given the life-oriented and interesting activities with science breakthroughs and in-depth explanations, the junior high

school and high school students were allowed to operate and experience various fields of science, attracting over 10 partner schools, including junior high schools and senior high schools, with more than 450 people to participate in the event. Notably, in 2024, fees for tour buses were specifically subsidized for remote rural schools, enabling rural elementary and secondary school students to participate in this event. Through a Science Fun Day every year, participants can receive a “certificate of completion” and a “surprise package” as rewards after completing the challenge games as instructed (see Figures 7-9).

NCUE campus headlines: <https://www.ncue.edu.tw/p/406-1000-28558,r93.php?Lang=zh-tw>



Figure 7. 2024 Science FUN Day - Group Photo



Figure 8. 2024 Science FUN Day - Science Experiment



Figure 9. 2024 Science FUN Day - Science Experiment

(6) Resources for Students with Special Educational Needs:

The Special Education Center in NCUE provides comprehensive support both internally and externally. Internally, we offer support, including learning assistance, daily living support, school adaptation, and transition services for students with disabilities. Externally, we provide special education consultation services to schools in our guidance area, community residents, and students, helping resolve issues related to teacher instruction, parental education, and student counseling practice. Meanwhile, we also conduct on-site visits to schools in our guidance area to understand their implementation of special education programs. Additionally, the Special Education Center in NCUE regularly publishes special education publications to support the professional development of special education teachers and related personnel, and organizes

transition coordination meetings for students with disabilities in universities and colleges to actively understand the current status, limitations, and resource needs of transition guidance activities across schools.

In 2024, we provided special education consultation services to 86 individuals, conducted 1 on-site school visit for guidance, published 2 issues of the Special Educators Quarterly, and organized 1 special education work review meeting for our guidance area, 1 transition coordination meeting for students with disabilities in universities and colleges, 6 basic competency training sessions in special education, 6 advanced competency training sessions, 1 advanced curriculum session, and 14 special education-related courses, totaling 27 special education professional competency activities.

Website of Special Education Center in NCUE: <https://spcweb.ncue.edu.tw/>

(7) Training for Novice Teachers:

Since 2017, NCUE has organized several training sessions annually, focusing on career orientation and introduction to teaching practices for novice teachers. These courses target newly appointed teachers as full-time teachers in public schools at the secondary level and below. The training aims to enhance novice teachers' classroom management and innovative teaching competencies, thereby facilitating their adaptation to the teacher position and equipping themselves for it. In 2024, the program adopted a hybrid mode combining a synchronous online session for one day and a physical workshop for two days, conducted from August 5 to August 16 across northern, central, and southern regions in Taiwan. Participation from different educational levels included 430 kindergarten teachers, 2,320 elementary school teachers, 585 junior high school teachers, and 341 senior high school teachers, with a total of 3,676 novice teachers participating in the training (Figures 10-11).

	
Figure 10. Teaching Session on “Teaching Power × Leadership”– Case Studies in Effective Teaching Strategies and Classroom Management	Figure 11. Teaching Session on “Character Power” – Social Emotional Learning (SEL) and the Practice of Character Education

(8) Chinese Language Tutors Training Program:

NCUE's Language Center is committed to promoting open educational access by regularly

hosting language lectures **free** of charge to the public. These lecture covers topics such as Chinese teaching, German, Japanese culture, and English proficiency tests, providing **free** opportunities for external participants to enhance general language literacy among the public. Simultaneously, the Language Center maintains an active presence on social media platforms, continuously promoting language knowledge by providing learning resources and cultural introductions through posts and interactive engagement.

Furthermore, NCUE has long organized the “Chinese Tutors Training Program,” which provides **free** training for students interested in Chinese language teaching. The program also welcomes offering auditors and observers, enabling non-NCUE participants to access Chinese language teaching resources. In 2024, two training sessions of the Chinese Language Tutors Training Program were conducted, totaling 30 hours with 50 participants (Figure 12).



Figure 12. Online Lectures on 2024 Chinese Language Tutors Training Program (**Free** of Charge)

(9) Public Lectures:

NCUE holds many lectures or activities every academic year, which are also open to the public.

In 2024, we held at least 103 themed lectures open to people not studying on campus.

Please refer to the attachment for the event list 4.3.1A-List of public lectures.

2. **Free** Access to Campus Facilities and Equipment:

The campus in NCUE is **freely** open to the general public. Spaces and facilities such as the library, sports fields and courts, art exhibitions, and restrooms are also available for **free** use by the public. NCUE places great emphasis on the accessibility of campus facilities. All buildings and campus facilities are inspected and improved in accordance with accessibility regulations. We have installed accessible elevators, accessible restrooms, accessible ramps, and accessible guidance facilities to facilitate easy access for individuals with disabilities.

(1) Campus Spaces:

NCUE’s two campuses are surrounded by 43.5 hectares of beautiful green space. The campuses

are open to the public to enter **freely** to take a walk around. Pedestrian trails are specially built for people to walk through the flower gardens or around Baisha Lake. Visitors can also use facilities such as water dispensers and toilets (see Figure 12-15). NCUE places considerable emphasis on building a campus environment with accessible facilities. There are 23 major buildings on the campus, each of which is equipped with accessible elevators and accessible toilets, with a 100% installation rate. The buildings and campus facilities are inspected and enhanced in accordance with the accessibility regulations, with accessible elevators, toilets, ramps, and guide services installed for people with disabilities (see Figures 13-18).

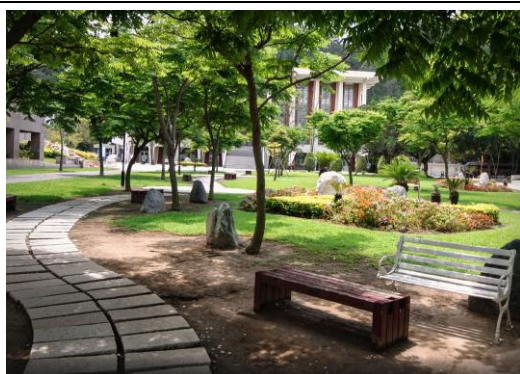


Figure 13. **Free** Access to Campus Facilities and Equipment



Figure 14. **Free** Access to Campus Facilities and Equipment

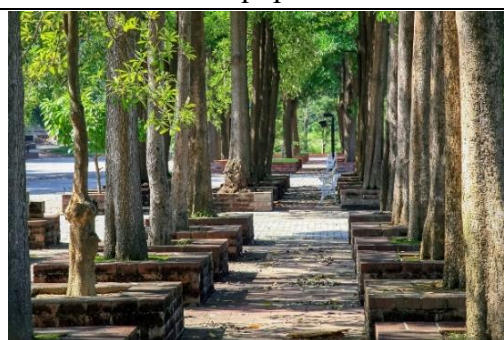


Figure 15. **Free** Access to Campus Facilities and Equipment



Figure 16. **Free** Access to Campus Facilities and Equipment



Figure 17. Accessible Ramp



Figure 18. Accessible Restroom

(2) Sports Fields and Pitches:

The sports venues and facilities of NCUE are **freely** available not only to teachers and students but also to the general public. For example, the tracks and fields of the university, and the volleyball court, basketball courts, and football fields on the Baoshan campus, are open to enable work with the community and promote exercise for all (see Figures 19-20).

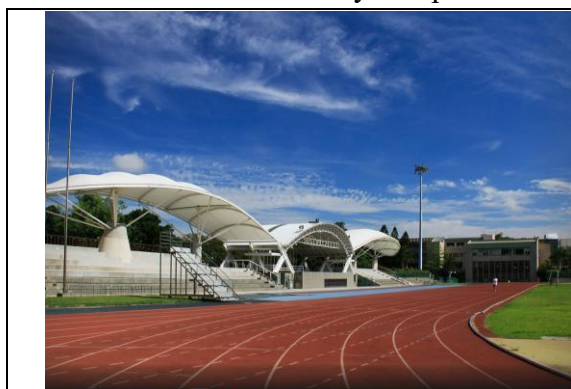


Figure 19. **Free** Access to Campus Facilities and Equipment – Sports Venue



Figure 20. **Free** Access to Campus Facilities and Equipment – Courts and Fields

(3) Library:

The library in NCUE implements Guidelines for the Management of Visiting and Reading for Outsiders (<https://olis.ncue.edu.tw/public/data/011916282971.pdf>). Non-university members can hold valid credentials in exchange for a temporary visitor's card to enter the library for **free**. They can avail of the library's rich collection of resources comprising more than 420,000 Chinese and English books, electronic databases, e-books, periodicals, newspapers, and audio-visual materials (see Figures 21-24). Please refer to the library collection resources in NCUE for details: <https://olis.ncue.edu.tw/np.asp?ctNode=1037&mp=1>

Guidelines for the Management of Visiting and Reading for Outsiders can be seen in Annex 4.3.1B-Library Regulations.



Figure 21. Library Resource of NCUE – Abundant Collection of Resources

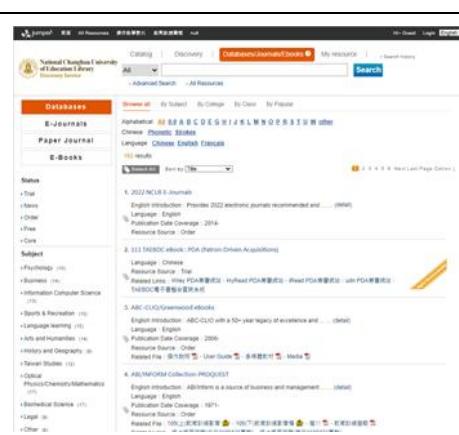


Figure 22. Library Resource of NCUE – Digital Resource



Figure 23. Reading Area in the Library



Figure 24. Reading and Computer Area in the Library

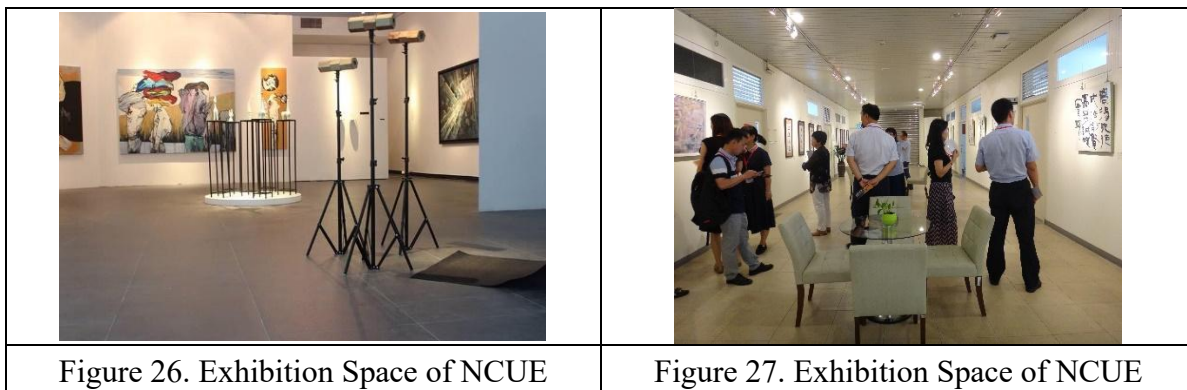
- (4) **Free** Access to Materials for the Visually Impaired: NCUE established the “Audio Book Center for Universities and Colleges” in 1989, initiating the recording of audiobooks for visually impaired users and offering collection and circulation services. In 1991, the Center expanded its service targets to serve visually impaired readers nationwide. Anyone requiring access to Braille books, large print books, or audiobooks can apply for membership at the Visual Impairment Materials Center for the Visually Impaired in NCUE by completing a membership application form and providing relevant documents. Upon approval, members can gain **free** access to services provided by NCUE for visually impaired readers, including audio book borrowing and return services, online reference services, monthly new books announcements, regular provision of book catalogs and audio book updates, reader recording requests, book recommendation and acquisition services, audio textbook surveys, production and distribution of audio textbook, general audio book recording, and dissemination of audio textbooks for students with visual impairment. As of August 2025, a collection of 18,716 audiobook resources in total is available for loan (Figure 25). Website: <https://visual.ncue.edu.tw/index.php?do=rule&pid=2>



Figure 25. Catalogue of Audio Book Collection for the Visually Impaired

(5) Exhibition Venues:

NCUE has set up exhibition venues such as the Yi-Hui Building (Baisha Art Center), the Art and Culture Corridor of the College of Extension Education, and the School History Museum. The exhibitions are held on a regular or irregular basis each year, and are open to the public for **free** (see Figures 26-27).



3. **Free** Access to Online Resources

NCUE provides a wealth of **free** online resources, including digital learning MOOCs courses; we have established the English language learning website: Yincal.com, which provides **free** English textbooks for the 10th grade to 12th grade students in vocational high schools; the **free** learning resources website – New World of Mathematics – for elementary and junior high school/high school teachers and students; the academic research institution data collection website, which permanently preserves the research results NCUE’s faculty and students, and provides users with **free** access; we have also established Educational Internship Information to provide **free** access to educational internship-related resources for intern students, internship institutions, and mentoring teachers.

(1) “Adaptive Learning Platform” English learning website:

NCUE implements the “2021–2024 Experimental Project of the Development of Adaptive Instruction Materials for Senior High School English Language Teaching” by the Ministry of Education. The project focuses on developing English audio-visual teaching materials for Grade 10–12 students at senior high schools and vocational high schools, and provides adaptive diagnosis and promotion on the platform. It emphasizes augmenting students’ autonomous learning ability and eliminating the M-shaped learning divide in the English language due to gender, family socioeconomic status, education level, and urban-rural differences among schools with **free** and high-quality educational content. The objective is to achieve the 4th goal of sustainable development: ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all.

(2) Elementary and Secondary School Mathematics Learning Resources Provided by the “New Horizon Mathematics Project”: Since 2015, NCUE has conducted the “New Horizon of Mathematics Project.” In addition to training seed teachers and visiting classrooms to teach

students in elementary and secondary school, the project focuses on improving the mathematical teaching resources of elementary and secondary schools, with materials such as over 500 instructional videos offered by mathematics experts, worksheets for learning units, teachers' handbooks, and teaching materials for the core literacy of students. All resources are available online and on the website. Visitors (regardless of their identities) can download the materials for **free** (see Figures 28-29).

Project website: <http://www.nhmath.com/NH-MATH/>

Teaching and learning materials downloads zone: <https://www.nhmath.com/NH-MATH/resources>

Video section: <https://www.nhmath.com/NH-MATH/video>



Figure 28. Mathematics Teaching Materials Are Available for **Free** Downloads



Figure 29. Mathematics Teaching Videos Are Available for **Free** Download

(3) Teaching Resources in Science Education for Elementary and Secondary School Teachers:

Graduate Institute of Science Education in NCUE implements the “National Project for Enhancing Inquiry-Based Curriculum Design and Implementation Skills of Science Teachers in Elementary and Junior High Schools,” commissioned by the K-12 Education Administration of the Ministry of Education. This project trains seed teachers and coaching teachers in inquiry-based teaching, forms professional teacher development teams, establishes community networks, and promotes inquiry-based curricula nationwide to enhance the inquiry competencies of elementary and junior high school students.

The seed teachers and coaching teachers in this project participate in the development of teaching module prototypes and compete in teaching plans and professional teaching competitions. Subsequently, professors specializing in inquiry-based education review the teaching plans and instructional videos developed by these seed teachers and coaching teachers, selecting outstanding inquiry-based teaching plans and videos.

These excellent teaching resources are made available on the CIRN website for **free** downloads and reference by teachers nationwide (Figures 30-31).

The resources can be accessed at: <https://cirn.moe.edu.tw/WebContent/index.aspx?sid=1197&mid=13596>



Figure 30. CIRN Website – Providing **Free** Teaching Plans



Figure 31. CIRN Website –Providing **Free** Teaching Plans

(4) Educational Internship Information:

To promote the tripartite relationship among supervising teachers, mentoring teachers, and student teachers, and to strengthen collaborative exchanges among universities with teacher education programs, educational internship institutions, and local educational administrative agencies, NCUE launched a specially developed online platform named “Educational Internship Information” in 2013 (website: <https://eii.ncue.edu.tw/index.aspx>), providing the following functions:

- (a) Internship Opportunity Matching: The platform enables educational internship institutions to complete the “Survey Form for Internship Institutions’ Intention,” which undergoes review by educational administrative authorities to safeguard student teachers’ internship rights and ensure the quality of their working environments. Additionally, specialized sections are provided for schools in remote (rural) areas, schools with special indigenous focus, bilingual schools, and schools with education for native languages (Taiwanese, Hakka, Indigenous languages) to assist student teachers in finding suitable internship institutions.
- (b) Internship Information Exchange: NCUE announces internship-related regulations, professional development activities, and information on internship vacancies on the platform. It also includes special sections such as an “Overseas School Educational Internship Prefecture” and an “International Educational Observation and Internship Program Audio-Visual Section” to assist student teachers in accessing information on overseas observation and internship opportunities, thereby enhancing their multicultural experiences and international competencies.
- (c) Tripartite Interaction and Performance Evaluation: The platform facilitates digital communication among supervising teachers, mentoring teachers, and student teachers. It supports functions such as internship assignment setting, discussion of individual internship-related issues, internship performance evaluation, and recording of student teachers’ leave and attendance.

- (d) Educational Internship Data and Analysis: In coordination with the “National Pre-Service and In-service Teacher Integrated Database,” the platform provides questionnaire surveys for pre-service teacher interns to help universities with teacher education programs understand their student teachers’ internship implementation. Related data analysis also serves as a reference for the Ministry of Education’s policy planning.

Website of Educational Internship Information: <https://eii.ncue.edu.tw/index.aspx>

SDG 4.3.2 Public events (lifelong learning)

National Changhua University of Education (NCUE), the only national university in Changhua County, provides educational resources for faculty and students and frequently hosts public lectures and community education activities that are open to the public. These events include both regular and occasional programs, covering a wide range of age groups from children to adults and seniors. This enables community members and the wider public to participate according to their continuing education and learning needs. We will provide detailed descriptions together with supporting evidence, including relevant links, photos, and participant data.

1. Regular Events:

NCUE organizes language learning courses, Community University for Seniors, **free** online courses, Science Fun Days, cultivation of science research talents among high school students, Educational Internship Information and education & training, novice teacher training courses, etc., so as to meet the needs of the community members and the general public on continuing education.

(1) Language Learning Courses:

NCUE runs regular community promotion and educational events, and offers multi-language learning courses in the afternoon or evening from Mondays to Sundays in English, Japanese, Korean, French, German, Spanish, Thai, Vietnamese, and Indonesian. Community residents can develop their second foreign language skills based on their learning interests.

A total of 39 courses were held in 2024, with 1,398 hours. A total of 482 people completed the courses and acquired a second foreign language. <http://lc.ncue.edu.tw/files/11-1010-11.php?Lang=zh-tw>

Please refer to the attachment for the course list: 4.3.2A- community educational events (On programmed basis-1)

(2) Seasonal Chinese Programs:

NCUE, approved by the Ministry of Education as one of the accredited learning institutions for overseas Chinese language programs, has been dedicated to promoting Chinese language education and actively expanding platforms for international exchange. NCUE regularly offers Chinese language programs annually, providing foreign residents in the local community and learners from around the world with a professional, friendly, and diverse Chinese language learning environment. Courses are flexibly offered in both in-person and online modes based on learners' needs and learners' locations, earning wide recognition from students.

In 2024, Seasonal Chinese Programs in NCUE included Spring, Summer, Autumn, and Winter sessions, as well as diverse courses including online group classes and individual classes, catering to learners of different proficiency levels and learning objectives. A total of 186 participants successfully completed their programs in 2024. Detailed course information and the latest course offerings are available on the Language Center's official website:

https://lcch.ncue.edu.tw/menu_curriculum?lang=zh-TW

https://lcch.ncue.edu.tw/curriculum_season?lang=zh-TW

(3) Community Senior University:

To provide continued learning opportunities for senior community members, NCUE has been operating the Changhua County Senior Citizens' University since 1995. This initiative encourages individuals who are aged 55 and above registered in our county to return to campus for learning and gain opportunities for social interaction with others.

Currently, the Senior University offers two sessions annually, one in the first half and another in the second half of the year. Each session lasts for 16 weeks, with classes held during weekdays. The curriculum is diverse, including courses in Japanese, English, calligraphy, Chinese painting, art, and computer skills. Since 2020, in response to rapid changes in information technology, we have added courses in smartphone applications. These enable senior learners to easily master smartphone operations, learning to use smartphones for photography, video production, social media engagement, internet searches for lifestyle information, and Google Maps navigation.

Notably, to address the prevalence of various scams and false information, the curriculum incorporates anti-fraud education, equipping seniors with knowledge of the latest fraudulent tactics for preventive measures.

In the post-COVID-19 era, we have intensified our focus on hygiene and cleanliness. After each class, thorough disinfection of the classroom is conducted to ensure a safe learning environment for our senior students.

In 2024, we conducted two sessions, each lasting 16 weeks. A total of 28 classes were offered, with 882 participant completing their sessions (Figures 1-6).

https://cee.ncue.edu.tw/course_detail.php?sn=852

https://cee.ncue.edu.tw/course_detail.php?sn=981

Please refer to the attachment for the course list: 4.3.2B-community educational events (On programmed basis-2)



Figure 1. Community Seniors University – Advanced Japanese Class – Students' Vocabulary Exchange and Sharing



Figure 2. Community Senior University – Beginner Smartphone Usage Class



Figure 3. Community Senior University
– Aerobic Slow Living and Reading
Class - Super Slow Jogging Practice



Figure 4. Community Senior University
– Multimedia Basic English Application
Class – Teaching with English Videos



Figure 5. Community Senior University
– Calligraphy Class – Teacher's
Guidance on Students' Calligraphy
Works



Figure 6. Community Senior University
– Beginner Art Class – Group Photo at
Off-Campus Exhibition

(4) Children's Minecraft Programming Learning Camp:

Minecraft is a sandbox game that incorporates coding and commands, allowing children to develop logical abilities and spatial thinking through gameplay. It encourages students to explore and solve problems by using various elements. Since 2021, NCUE has been organizing Minecraft Programming Learning Camps for Children during winter and summer vacations. To date, 87 children have participated in these camps (Figure 7-10).

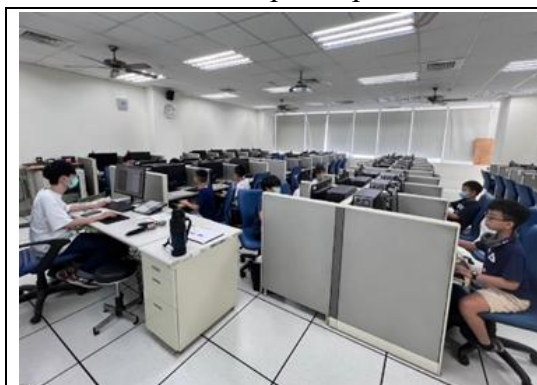


Figure 7. Children's Minecraft Programming Learning Camp – Students Attentively Listening to Instruction	Figure 8. Children's Minecraft Programming Learning Camp – Hands-On Practice
	
Figure 9. Children's Minecraft Programming Learning Camp – Hands-On Practice	Figure 10. Children's Minecraft Programming Learning Camp – Closing Ceremony

(5) Massive Open Online Courses (MOOCs):

NCUE has developed refined online MOOCs courses, which are open to the public. Currently, we offer 15 courses as extension courses each semester. Upon payment, participants have unlimited access to course materials for 21 days (Table 1). These courses are available to non-university members, elementary and junior high school teachers, and the general public. Upon completion, participants receive a training certificate from NCUE. Qualified teachers can also obtain national teacher professional development hours. In 2024, a total of 801 students completed courses and received training certificates.

Table 1. List of MOOCs of NUCE

Number	Course Name
1	Professional Ethics in Helping Professions
2	Fundamentals for Professional Counselors – Counseling Theories
3	Learning Diagnosis and Guidance
4	Counseling Techniques
5	Educational psychology
6	Group Counseling Design and Practice
7	Innovative Teaching Strategies and Design: Concepts and Implementation
8	Introduction to Play Therapy
9	Introduction to Expressive Therapy
10	Parent-Child Play Therapy
11	Taiwanese (Hokkien) Enhancement Course in Language Proficiency Test for Level B2

12	Holistic Perspective – Strategies for Inclusive Education
13	Introduction to Special Education
14	Taiwanese Pronunciation and Phonetics
15	Principles of Teaching

(6) Environmental Education Training Program:

In recent years, global climate change has caused significant impacts on the Earth. To fulfill our university's social responsibility, NCUE obtained Taiwan Environmental Education Institution Certification in December 2016, and in 2024, stood out among 51 institutions by being recognized as an Environmental Education Outstanding Unit (Figure 11). NCUE specializes in nature conservation and climate change. We conduct annual environmental education personnel training programs, catering to those interested in environmental education promotion, in-service teachers, and environmental education professionals seeking continuing education.

The curriculum covers topics such as the past, present, and future trends of global climate change, the impacts and adaptations to climate change, sustainable development strategies, environmental ethics, approaches to promoting environmental education, environmental education program design, planning and implementation, and field visits.

From 2017 to the present, NCUE has trained 741 participants, equipping them with relevant professional knowledge and skills (Figures 11-14).

Course and Activity Photos: https://www.facebook.com/NCUEEEEC/photos_albums



Figure 11. Environmental Education Training Program



Figure 12. Environmental Education Training Program – Group Design of Environmental Lesson Plans

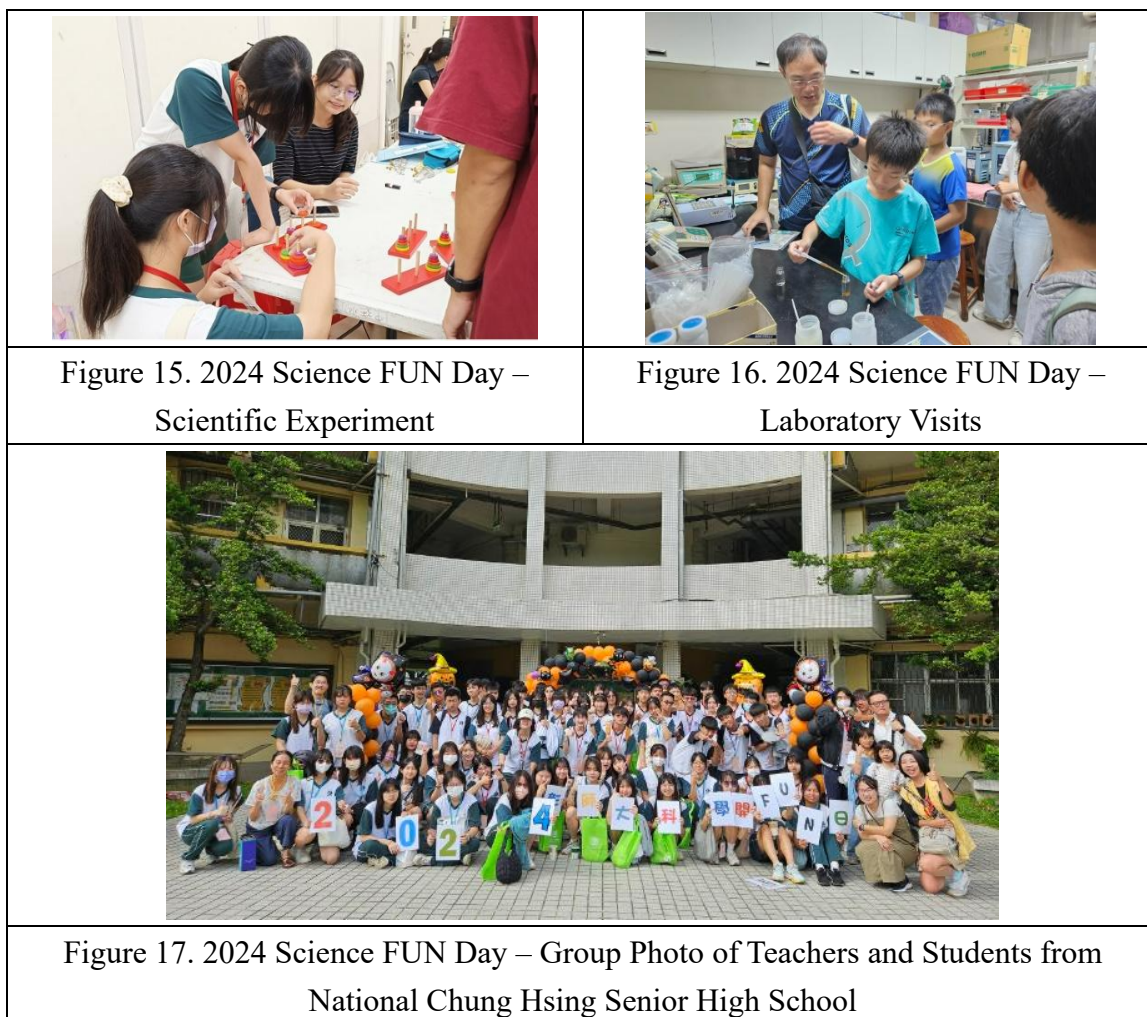
	
Figure 13. Environmental Education Training Program – Field Learning	Figure 14. Environmental Education Training Program – Visit to Conservation Education Center of Taiwan Biodiversity Research Institute

(7) Science FUN Day:

To enhance scientific literacy among the public and cultivate a scientific attitude in daily life, while also promoting understanding of cutting-edge scientific knowledge, NCUE organizes an annual “Science Fun Day.” On this day, we plan numerous exciting and engaging science-themed challenge games. Participants have the opportunity to conduct hands-on DIY science experiments, experience the wonders of science, and ultimately integrate logical thinking and scientific attitudes into their daily lives.

The 2024 Science Fun Day was jointly organized by NCUE’s College of Science and the Science Education Center. Through opening various laboratories in the College of Science for public visits, accompanied by guided tours led by graduate students, the public was able to understand the latest scientific research currently being conducted in each laboratory, with research findings presented in an accessible and concise manner. Additionally, Science Fun Day featured dozens of engaging science activities, allowing participants to personally explore and experience the wonders of various scientific fields through inquiry and hands-on practices. Notably, remote rural schools collaborating with NCUE in the Public Science Education Project were invited to participate, with subsidies provided for the fees of tour buses. NCUE provided a platform for showcasing the characteristics of remote rural schools, pre-service teachers’ competency education, and rural students’ learning performance, creating a more comprehensive and high-quality educational environment for rural children and achieving the educational goal of “achieving success for every child” (Figures 15-17).

Campus Headlines of NCUE: <https://www.ncue.edu.tw/p/406-1000-28558,r93.php?Lang=zh-tw>



(8) High School Student Talent Cultivation Program for Scientific Research (Physics Division):

The Department of Physics in NCUE has been implementing this program for over 10 years. The program aims to select and cultivate high school students with potential and interest in physics. Through systematic curriculum and activity design, this program can guide students in developing physics-based thinking, strengthening their abilities in autonomous learning and problem-solving, and gradually cultivating their competencies in conducting independent research and practical inquiry.

The curriculum integrates both theoretical and practical courses. In addition to classroom instruction, diverse extension activities are offered, such as field visits to science parks and museums in northern, central, and southern Taiwan, as well as exchanges in campus tours and science camps with partner universities. These experiences thereby broaden students' horizons and strengthen their understanding of the application of physics.

In 2024, two classes (first and second year of high school) participated, with a total of 59 students (Figures 18-21).

Program website: <http://phys5.ncue.edu.tw/gifted/index.htm>

Program Facebook: <https://www.facebook.com/NcueGifted>

Achievement video: <https://www.youtube.com/watch?v=c8DaaYvdDz4>

Classroom photos: <https://drive.google.com/drive/folders/1Nwi5hkHfZa4BbYhTjWAW5IrPmYU5tNe>

	
Figure 18. 2024.11.09 The Teacher Explaining the Theory of Projectile Motion	Figure 19. 2024.11.02 Students Conducting Statistics Experiments
	
Figure 20. 2024.10.19 The Teacher Guiding Students in Hands-On Practices	Figure 21. 2024 Group Photo of Off-Campus Visit

(9) High School Student Talent Cultivation Program for Scientific Research (Mathematics Division):

The Department of Mathematics in NCUE has been implementing this program for over 10 years. This program aims to nurture students with interest and potential in mathematics from central Taiwan, including Taichung City, Changhua County, Nantou County, and Yunlin County. Through diverse teaching topics, including number theory, calculus, geometry, statistical information, and logical analysis, the program enables students to recognize and experience various aspects of mathematics. The instructors enhance students' mathematical thinking, logical reasoning, and mathematical deduction skills through case explanations and interactive guidance during the courses. This approach also helps students discover the application and ingenuity of mathematics in daily life. In 2024, the program cultivated 51 student participants. Program Website: <http://120.107.155.233:81/high/>

(10) Educational Internship Information and Educational Training:

NCUE began planning and establishing the platform “Educational Internship Information” in 2009, which has been operated since 2013. The platform connects internship supervisors, mentoring teachers, and intern students, enabling close integration and real-time communication among these three parties to enhance the quality of educational internships.

To ensure that teachers and students are proficient in using the platform, NCUE regularly holds briefing sessions each year. In 2024, the sessions held for different user groups and their participation numbers were as follows:

- (a) Intern Students: 1 session with 2,005 participants.
- (b) Internship Supervisors: 2 sessions with 111 participants.
- (c) Internship Institution Staff: 2 sessions with 905 participants.
- (d) Mentoring Teachers: 2 sessions with 1,052 participants.
- (e) Staff in Universities with Teacher Education Programs and County/City Authorities: 1 session with 52 participants.

(11) Educational Internship Excellence Awards and Thesis on Teaching Materials and Methods Award Ceremony and Educational Internship Guidance Conference: On November 11, 2024, NCUE held the event. In the Educational Internship Guidance Conference, group discussions and opinion exchanges were conducted by dividing the representatives into groups according to “Universities with Teacher Education Program” and “County/City Supervisors and Personnel in Internship Institution,” to which participants were affiliated. In addition, NCUE invited keynote speakers to share their experiences regarding internship guidance. This facilitated participants’ better understanding of the challenges faced by various units in internship guidance and assisted educational practicum support units in establishing communication bridges (Figures 22-23).



Figure 22. Educational Internship Information – Educational Internship Guidance Conference



Figure 23. Educational Internship Guidance Conference – Group Discussion

2. Events in Each Academic Year - On an irregular basis:

NCUE organizes various educational courses and activities in each academic year on an irregular

basis. These include more than 100 public lectures every year, various types of continuing education courses for lifelong learning, Chinese language teaching seminars, and initiatives related to University Social Responsibility (USR). Additionally, NCUE conducts environmental education programs and activities, professional development workshops for teachers, including preparatory training in the field of science education and cultural and art exhibitions, all aimed at implementing lifelong learning for all citizens.

(1) Public Lecture Activities:

NCUE holds many lectures and activities every academic year, which are also open to the public. The speech topics include various professional fields such as electronic engineering, mechanical and electrical engineering, information engineering, science education, etc. In 2024, NCUE held at least 103 themed lectures for those not studying on campus.

Please refer to the attachment for the event list 4.3.1A-List of public lectures.

(2) Continuing Education Program for Lifelong Learning:

NCUE investigates the needs of students and the community, and organizes various types of promotional education courses from time to time, which offer the public to continue to develop their interests. These courses cover business operations, information technology, business management, marketing, and handicraft creation.

In 2024, A total of 60 courses were held with 1,369 hours and 1,213 participants registered for them. In addition, when students are unable to attend in-person courses due to unforeseen circumstances, NCUE also offers synchronous online courses, so that they can participate in the classes (Figures 24-29).

<https://zh-tw.facebook.com/ncuecee/>

<https://aps.ncue.edu.tw/cee/index.php>

<https://aps.ncue.edu.tw/cee/index.php>

Please refer to the attachment for the course list: 4.3.2C- Community educational events (Ad hoc)



Figure 24. Community Educational Events – Learning Japanese Through Japanese Dramas



Figure 25. Community Educational Events – NAHA Basic Aromatherapy Course



Figure 26. Community Educational Events – Cross-Disciplinary Mathematics Teacher Training Program



Figure 27. Community Educational Events – Basic Planting Workshop for Staghorn Ferns



Figure 28. Community Educational Events – Preparatory Course in Labor Affairs Mediator Certificate



Figure 29. Community Educational Events – Certification Course in DS Baby Yoga

(3) Chinese Language Teaching Seminars:

NCUE regularly organizes online or in-person Chinese language teaching seminars and training courses. In 2024, one seminar titled “Teaching and Living in Germany and Europe” was conducted, inviting overseas Chinese language teachers to share their teaching experiences and life in Europe, with 17 participants. Public information about the seminars and training courses can be found on our Facebook fan page:

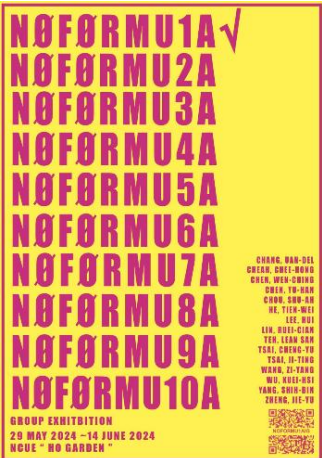
<https://www.facebook.com/NCUELCCH>

<https://www.facebook.com/photo/?fbid=713088454177008&set=a.478028647682991>

(4) Organizing Art and Cultural Exhibitions to Provide Aesthetic Cultivation for Community Residents:

NCUE features exhibition areas, including the Baisha Art Center and Art Corridor on campus, regularly organizing exhibitions displaying external artists’ various types of artistic works. These areas also serve as venues for students in the Department of Fine Arts to present their artworks. In 2024, a total of 13 on-campus art and cultural exhibitions were held, which were **freely** accessible not only to faculty and students but also to the general public (Figures 30-34).

Please refer to the attachment for the course list: 4.3.2D- List of exhibitions.

		
Figure 30. 2024/05/29 - 2024/06/14 Exhibition Poster	Figure 31. 2024/06/13- 2024/06/20 Exhibition Poster	Figure 32. 2024/09/30- 2024/10/16 Exhibition Poster
		
Figure 33. 2024/06/13-2024/06/20 A Glimpse of the Exhibition Area	Figure 34. 2024/01/22-2024/02/02 A Glimpse of the Exhibition Area	

SDG 4.3.3 Vocational training events (lifelong learning)

NCUE is one of the three normal universities in Taiwan and serves as a key institution for continuing education of secondary school teachers in the central region. We offer annual in-service teacher training courses to help junior high and elementary school teachers enhance their professional knowledge and skills.

Furthermore, to fulfill NCUE's social responsibility and assist in cultivating high-quality talents in Changhua County, we have designed numerous vocational training-related extension education courses. We also collaborate with local governments and corporate organizations to conduct in-service talents training programs for businesses.

We provide detailed explanations along with relevant links, photographs, and numerical data as supporting evidence.

1. Regular Vocational Training Courses:

NCUE regularly organizes professional development courses, including second specialty professional courses for elementary and junior high school teachers, professional training in science education, and advanced leadership training for principals and directors. These programs aim to enhance the teaching capabilities of elementary and junior high school teachers and the professional skills of school leaders. Furthermore, NCUE pioneered the establishment of a "Community Counseling & Human Development Service Center" in Taiwan, which serves the local community. We conduct annual professional training workshops for psychological counselors. In terms of business talent cultivation, we have long-standing collaborations with local governments and corporate organizations. We offer training programs for second-generation business leaders and elite female executives in enterprises.

(1) Vocational Training for Secondary School Teachers:

In alignment with the Ministry of Education's policies and the professional development needs of secondary school teachers, NCUE regularly offers various second specialty courses and professional enhancement programs for in-service teachers across different disciplines. These programs are designed to support the professional growth of in-service teachers and provide them with new teaching insights, and enhance their instructional capabilities.

In 2024, NCUE offered a total of 70 courses across various fields, including the Taiwanese Hokkien language, Information Technology, Living Technology, Bilingual Education, Scouting Education, and Special Education. The training amounted to 2,922 hours, with a total participation of 1,384 attendees (Figures 1-6).

Please refer to the attachment for the course list: 4.3.3A- List of executive education programs and vocational training (on a programmed basis)



Figure 1. Vocational Training for Teachers – In-Service Training Course in a Second Specialty for Teachers in the Living Technology Field



Figure 2. Vocational Training for Teachers – In-Service Training Course in a Second Specialty for Teachers in the Living Technology Field



Figure 3. Vocational Training for Teachers – In-Service Training Course in a Second Specialty for Taiwanese Hokkien Teachers – Integration of Traditional Puppetry into Instructional Design



Figure 4. Vocational Training for Teachers – Enhancement Course in Bilingual Education

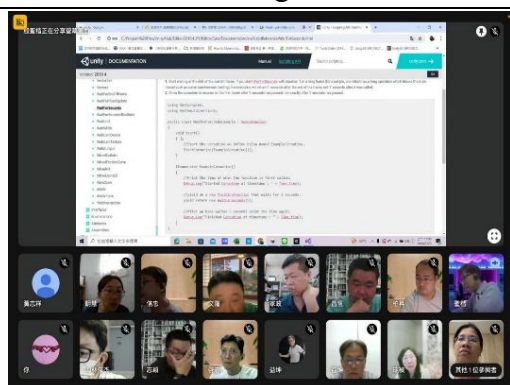


Figure 5. Vocational Training for Teachers – Enhancement Credit Course for Teachers in the Information Technology Field



Figure 6. Vocational Training for Teachers – In-Service Training Course in Second Specialty for Teachers in the Scouting Field

(2) Training Program for Principals and Directors of Elementary and Junior High Schools on School Management Competencies:

As the only secondary school teacher training institution in central Taiwan, NCUE has been committed to fulfilling its social responsibility. Since 2020, we have been organizing an annual “Training Program for Principals and Directors of Elementary and Junior High Schools on School Management Competencies.” Each program lasts for four months.

The course invites renowned scholars from Taiwan’s education sector, university and elementary/junior high school principals, and heads of educational institutions as lecturers. It provides a comprehensive platform for elementary and junior high school administrative leaders to understand current educational development trends and engage in mutual exchanges.

To date, NCUE has trained 83 high-level administrative leaders from elementary and junior high schools (Figures 7-10). 2024 Course Brochure: <https://aps.ncue.edu.tw/cee/guidedoc/8649-1.pdf>



Figure 7. Inviting Renowned Scholars from the Education Sector to Deliver Courses



Figure 8. Simulated Interview Scenarios - Assisting Participants in Mastering Interview Flow and Techniques



Figure 9. Group Discussion of Simulated Scenarios



Figure 10. Certificate Awarding at Closing Ceremony

(3) Professional Development in Science Education for Primary and Secondary School Teachers:
Professor Hsiao-Lin Tuan from the NCUE Institute of Science and Education is leading a project by the K-12 Education Administration of the Ministry of Education. This initiative focuses on

training primary and secondary school natural science teachers in inquiry-based teaching and interdisciplinary inquiry (STEM) curriculum design for professional competency development. The project has five main objectives: (a) Through a model of coaching teachers guiding seed teachers' professional growth, cultivate seed teachers with inquiry-based teaching competencies; (b) Train beginning-level seed teachers with inquiry-based teaching skills, train intermediate seed teachers with inquiry teaching skills that integrate learning motivation, and train teachers at advanced and coaching level with interdisciplinary (STEM) inquiry teaching competencies that incorporate motivation; (c) Connect seed inquiry teachers and coaching teachers nationwide to establish an inquiry teacher community network; (d) Promote award-winning lesson plans, professional achievements, and inquiry curricula from previous years to counties and cities across the nation; (e) Develop inquiry curriculum designs that enhance motivation.

(a) In line with the Ministry of Education's guidelines and to improve the design, implementation, and reflection abilities of science teachers in primary and secondary schools, our university regularly organizes training activities for these teachers. These activities include introductions to inquiry-based practices in the new curriculum guidelines, inquiry-based curriculum design, and implementation workshops. The aim is to enhance the professional knowledge and skills of primary and secondary school teachers in inquiry-based teaching. In 2024, we conducted 8 training sessions, totaling 78 hours of training, with 333 participants (Figures 11-13).



Figure 11. 2024.11.30 Phase II Workshop on Inquiry Curriculum Implementation (online)



Figure 12. 2024.10.02 Phase II Workshop on Inquiry Curriculum Implementation



Figure 13. 2024.12.14 Phase III Workshop on Inquiry Curriculum Implementation

(Central Region)	(Central Region)
------------------	------------------

(b) Self-Organized Groups: As participants engage in this project, their willingness to form self-organized groups based on inquiry into teaching needs has been growing increasingly. In addition to the three-phase workshop mode, NCUE provides more opportunities for these self-organized activities. Teachers who attained advanced and coaching levels through this project can serve as speakers to fulfill the goal of cultivating teacher leaders. In 2024, NCUE held 11 self-organized group sessions, each typically lasting half a day. The total training hours reached 33 hours, with 383 participants in total (Table 1 & Figures 14-16).

	
Figure 14. 2024.01.14 Self-Organized Group Organized by Participants (Online)	Figure 15. 2024.06.23 Self-Organized Group Organized by Participants (Online)
	
Figure 16. 2023.07.09 Self-Organized Group (Held at NCUE)	

Table 1. Overview of Self-Organized Groups in 2024

Date	Location	Activity name	Number of Participants
2024/03/31	Online	Application of Embedded Multiple Assessment in Inquiry-Based Teaching–Using Physics and Chemistry Courses on CWISE as an Example – Self-Organized Group 1	40
2024/04/14	Online	Application of Embedded Multiple Assessment in Inquiry-Based Teaching – Using Biology Course on CWISE as an Example – Self-	25

		Organized Group 2	
2024/05/04	Online	International Scientific Literacy Assessment and the Application of Interdisciplinary Inquiry Teaching – Self-Organized Group 3	22
2024/05/26	Online	Scientific Literacy-Oriented Assessment: Driving Inquiry-Based Changes in Teaching and Learning through Mid-term Exam Question Design – Self-Organized Group 4, Morning Session	59
2024/05/26	Online	Scientific Literacy-Oriented Assessment – Driving Changes in Inquiry-Based Teaching and Learning through Mid-term Exam Question Design – Self-Organized Group 5, Afternoon Session	59
2024/06/15	Online	Case Sharing of Curriculum Design for Interdisciplinary Inquiry-Based Curriculum – Using Campus Dining and Student Uniforms as Examples – Self-Organized Group 6	12
2024/06/23	Online	Principles of Curriculum Design for Digital Scientific Inquiry-Based Courses – Self-Organized Group 7	39
2024/07/09	NCUE	Curriculum Design for Digital Scientific Inquiry-Based Courses – Using micro:bit Tools as an Example – Self-Organized Group 8 Morning Session	17
2024/07/09	NCUE	Curriculum Design for Digital Scientific Inquiry-Based Courses – Using micro:bit Tools as an Example – Self-Organized Group 9 Afternoon Session	17
2024/07/23	Online	Cooperative Learning in Natural Science Inquiry-Based Teaching at Elementary Schools – Self-Organized Group 11	29
2024/07/27	Online	Teaching Experiences in Inquiry-Based Curriculum at Junior High Schools	64
Total			383

(4) Community Psychological Counseling Professional Training Courses:

In 1994, NCUE integrated the resources of the Department of Guidance and Counseling to

establish the Community Psychological Counseling and Human Development Service Center, pioneering a university-based service for community members in Taiwan. Initially, the center built its reputation through promotional activities, gradually developing referral and collaborative relationships with community entities (including hospitals, courts, and social welfare organizations).

The center is established to implement guidance and counseling work and to promote the functions of community service. It provides psychological counseling services to community members and offers practical training and supervision for professional psychological counselors. In addition to offering psychological counseling services to the community, the center organizes annual professional seminars and training sessions, providing practical training and supervision for professional psychological counselors. In 2024, NCUE conducted 8 workshops and training courses, with a total of 222 participants (Table 2).

Website: <https://humanweb.ncue.edu.tw/p/426-1021-11.php?Lang=zh-tw>

Course Brochure: <https://humanweb.ncue.edu.tw/p/406-1021-23939,r506.php?Lang=zh-tw>

Table 2. 2024 Community Psychological Counseling Professional Training Course

Date	Program	Hours	Participants
2023/11/04- 2024/01/16	Catching Wounded Souls: 2023 Trauma Healing Series – Multi-Disciplinary Psychology Professional Workshops	81	157
2024/01/10- 2024/01/20	Catching Wounded Souls Series II: 2023 Trauma Healing “Supervision” Session	9	20
2024/05/23- 2024/07/11	2023 academic year Let’s Find “Together” Again – Let’s Together!: Lectures Series and Workshops on Grief and Loss Psychology x Artisan Handcrafting (6 sessions total)	33	45
Total	-	123	222

(5) Cultivating Industrial and Commercial Talents in Changhua County:

Located in Changhua County, NCUE collaborates with the Changhua County Government and private enterprises to assist local businesses in talent development, enabling them to keep pace with the times and achieve sustainable operations. In 2016, 2019, 2020, 2021, 2022, 2023, and 2024, we organized various training programs, including the “Young Entrepreneur Academy – Training for Second-Generation Elite Entrepreneurs,” “Women’s Academy - Female Leadership Training Program,” and “E-commerce Academy - E-commerce Talent Training Program.”

Each program consists of 54 hours of curriculum, designed to cultivate second-generation successors and female leaders for Changhua County’s small and medium-sized enterprises (SMEs). These programs aim to equip participants with management skills, innovative business

practices, digital marketing, and negotiation abilities.

In response to the demands of the information age, the curriculum also incorporates specialized topics such as AI innovative applications, big data analysis, and applications.

To date, 419 participants have successfully completed these training programs (Figures 17-20).

2024 NCUE campus headlines of Women's Academy: <https://www.ncue.edu.tw/p/406-1000-28692,r93.php?Lang=zh-tw>

	
Figure 17. Executive Education Programs – 2024 Women's Academy -Women Leaders Training Course - Class Status	Figure 18. Executive Education Programs- 2024 Women's Academy –Women Leaders Training Course – Group Discussion
	
Figure 19. Executive Education Programs – 2024 Women's Academy -Women Leaders Training Course – Enterprise Visit	Figure 20. Executive Education Programs - 2024 Women's Academy –Women Leaders Training Course – Group Photo at Closing Ceremony

(6) Training for Novice Teachers:

Since 2017, NCUE has annually organized training courses on career orientation and introduction to practical teaching for novice teachers. These courses target newly-appointed teachers as full-time teachers in public schools at the secondary level and below. The training aims to enhance their classroom management and innovative teaching competencies, thereby facilitating their adaptation to and equipping themselves for teaching positions.

In 2024, the program adopted a hybrid mode combining one-day synchronous online courses and two-day face-to-face workshops. The training was conducted from August 5 to August 16 across northern, central, and southern Taiwan. Participation from different educational levels

included 430 kindergarten teachers, 2,320 elementary school teachers, 585 junior high school teachers, and 341 senior high school teachers, totaling 3,676 participants (Figures 21-22).

	
Figure 21. Teaching Session on “Teaching Power × Leadership” – Case Studies in Effective Teaching Strategies and Classroom Management	Figure 22. Teaching Session on “Character Power” – Social Emotional Learning (SEL) and the Practice of Character Education

2. Vocational Training Events on an Irregular Basis:

NCUE organizes various vocational training courses in each academic year on an irregular basis. These courses cover management training, specialized education courses, and second-language proficiency enhancement courses. We also conduct ESG sustainability planning training programs, general education lectures on green energy, and international scientific literacy forums. These initiatives aim to equip seed teachers from elementary and junior high schools with professional knowledge and competencies in specialized fields through the integration of ESG-related topics.

(1) Vocational Training Events for the Public:

To promote lifelong learning and enable the general public to continuously enhance their skills applied in workplaces, NCUE designs vocational training courses tailored to the needs of community residents and local industries. These courses cater to various working groups, including corporate leaders, employees, and professionals in specialized technical fields.

The training programs cover a wide range of vocational skills education activities, including management training, specialized educational courses, and second-language enhancement courses.

In 2024, NCUE conducted a total of 127 classes, with over 4,077 hours of total training time. These programs helped 2,451 participants improve their knowledge and skills (Figures 23-24). Please refer to the attachment for the course list: 4.3.3B- List of executive education programs and vocational training (Ad hoc)



Figure 23. Vocational Training for People who are not Attending the University – Training Program for ESG Sustainability Report and Carbon Management Manager Certificate



Figure 24. Vocational Training for People who are not Attending the University – Basic Course in Taiwanese Hokkien Language Proficiency Test

(2) 2024 ESG Sustainability Planning Training Program:

In response to the intensifying global climate change and the Carbon Border Adjustment Mechanism (CBAM), which the European Commission planned to implement in 2030, Taiwan set a vision of Net-Zero Emission by 2050 and incorporated the greenhouse gas emissions into carbon fee collection mechanisms. To equip corporate talents in Changhua County with relevant information and knowledge, NCUE organized the “ESG Sustainability Planning Training Program” in 2024.

The program offered four sessions each of “ISO 14064-1 Greenhouse Gas Internal Verifier Training Course and Certification Program” and “ISO 14067 Carbon Footprint Management and Calculation Basic Course and Certification Program.” Courses were delivered by professional instructors from SGS International Verification Company. A total of 192 participants from different corporations gained a deeper understanding of carbon emission calculation and verification (Figures 25-26).



Figure 25. 2024 ESG Sustainability Planning Training Program – Opening



Figure 26. 2024 ESG Sustainability Planning Training Program – Participants

Ceremony	Listening Attentively
----------	-----------------------

(3) General Education Lectures on Green Energy and Faculty Community Activities:

Through energy education programs in NCUE, the Ministry of Education’s undertaking of the Phase Three University Social Responsibility Project (2023-2024), and its approval for NCUE’s project “Splendor of Changhua: Developing Wind and Solar Energy Resources (USR Hub) ,” NCUE organizes general education lectures on green energy. These sessions help participants understand foundational knowledge of energy transition, as well as the current development and future challenges of green energy technology both globally and in Taiwan.

Additionally, NCUE established the Faculty Professional Community, which focuses on the Smart Grid and Electrical Energy. Community members hold meetings, discuss the topics, and organize various lectures and symposiums to explore knowledge and integrated applications of smart grids, renewable energy, energy storage technology, and the Internet of Things (IoT). These efforts promote relevant technologies and contribute to establishing more stable, reliable, and environmentally friendly power systems and to advancing sustainable energy development. In 2024, NCUE conducted 11 general education lectures on green energy and faculty community activities with at least 332 participants (Table 3).

Table 3. Overview of General Education Lectures on Green Energy and Faculty Community Activities in 2024

No.	Date	Activity Name	Number of Participants
1	2024/05/06	Corporate Green Energy Market Demand Challenges	12
2	2024/09/13	ESG Sustainability Planning – Internal Greenhouse Gas Inventory Concepts and Practice	25
3	2024/09/26	Dancing with Smart Risks: Unveiling New Applications and Security Challenges of AI Popularization	50
4	2024/10/17	Self-Built Solar Photovoltaic Power Generation Systems and Application Sharing	(Not recorded)
5	2024/10/08	Solar Photovoltaic Installation Experience and Green Energy Education Promotion Workshop	30
6	2024/10/15	Case Studies on Microgrid Technology Development Trends and Distributed Microgrid	15
7	2024/11/14	Collaboration between the SDGs Indicators of the United Nations and Green Energy Technology	50
8	2024/11/19	Distributed Power Grid and Long-duration Energy Storage Systems	(Not recorded)

9	2024/11/28	New Trends You Must Know in the Digital Age	50
10	2024/12/12	Current Development and the Future of Renewable Energy in Changhua	50
11	2024/12/26	Green Energy Impact and Response Strategies for Taiwan's Industrial Demand Side	50

(4) 2024 International Conference of Scientific Literacy in Taiwan:

NCUE implements the Science Education Working Group Project for Schools from Senior High Schools and Below, aiming to assist the existing 14 science education centers in advancing their missions. The project seeks to achieve the goals of science (mathematics) education and facilitate mutual support and cooperation among science education centers, and link them with projects commissioned by the Ministry of Education.

To enhance the understanding of OECD scientific literacy, sustainable environmental education, and short-term goals of science education among all participants in the Medium-Term Project on Science Education, NCUE organized the “2024 International Conference of Scientific Literacy in Taiwan” on May 25, 2024 (Figures 27-28). The event gathered science education scholars, experts, and researchers, representatives from all 14 national science education centers, the Ministry of Education officials, representatives from the advisory group of science education, science teachers from elementary and junior high schools, and committee members from the working group.

Through exchanges between academic research and teaching practices, the event promoted participants’ attention to international scientific literacy and encouraged the development of future research and teaching practices. The event totaled 4.5 hours with 101 participants.

NCUE Campus Headlines: <https://www.ncue.edu.tw/p/406-1000-26129,r93.php?Lang=zh-tw>



Figure 27. 2024.05.25 2024
International Conference of Scientific
Literacy in Taiwan



Figure 28. 2024.05.25 2024
International Conference of Scientific
Literacy in Taiwan

(5) International Scientific Literacy vs Forum on Promoting Short-term Goals in Science Education:

NCUE organized two International Scientific Literacy Forums on September 6 and October 18, 2024. The forums invited representatives from 14 science education centers and 4 experienced

project participants who conducted science education-related projects in the Ministry of Education to serve as panelists. These project participants shared their experiences when they implemented the projects.

Through academic and practical teaching exchanges, the forums enhanced both lateral and vertical connections in the national science education network and effectively built consensus on international scientific literacy and short-term goals of science education. A total of 118 participants attended two sessions (Figures 29-30).

NCUE Campus Headlines: <https://www.ncue.edu.tw/p/406-1000-28051,r93.php?Lang=zh-tw>

	
Figure 29. 2024.09.06 2024 International Scientific Literacy vs Forum on Promoting Short-Term Goals in Science Education	Figure 30. 2024.10.18 2024 International Scientific Literacy vs Forum on Promoting Short-Term Goals in Science Education: Assessment and Application

(6) Building an Ecological Home and Sustainable Communities: The Changhua Ecological Arts Initiative

NCUE has been actively fulfilling its University Social Responsibility (USR) commitments. The Department of Fine Arts in NCUE focuses on building an Ecological Home and Sustainable Communities as its main theme, planning a series of interdisciplinary courses such as “Art and Auxiliary Therapy,” “Horticultural Therapy,” and “Curatorial Theory and Practice.” These professional courses have cultivated the professional capabilities of 37 students through in-depth practices in communities.

The initiative has trained 10 seed teaching assistants, and its audio-visual team produced 22 documentary films. This accumulates students’ professional and career readiness, creating a virtuous cycle connecting curriculum, community, and career development. Additionally, through collaboration with the Changhua Senior Learning Center, 8 workshops were organized, successfully attracting 208 elderly participants. The “Green Elf” workshop series was further expanded to 5 sessions, providing students with off-campus internship opportunities and hourly subsidies (Figure 31-32).



(7) ASROC 2024 Annual Meeting:

NCUE co-hosted the ASROC 2024 Annual Meeting with the Astronomical Society of the Republic of China and National Tsing Hua University from May 31 to June 2, 2024. The conference brought together astronomers from across Taiwan, astronomy educators at all education levels (including elementary, junior high, senior high schools, and universities), and astronomy outreach workers to discuss astronomical issues and exchange experiences in science popularization efforts. Highlights of the event included two plenary talks by internationally renowned scholars sharing their research findings, as well as general education lectures and a space policy forum (Figures 33-34).

NCUE Campus Headlines: <https://www.ncue.edu.tw/p/406-1000-26421,r93.php?Lang=zh-tw>



(8) TSPMA 2024 Strategy and Performance Management Conference:

The College of Technology and Graduate Institute of Human Resource Management at NCUE jointly organized the “TSPMA 2024 Strategy and Performance Management Conference” on June 29, 2024. The event attracted nearly 300 scholars and industry professionals from Taiwan and abroad, featuring 41 paper presentations covering six major management topics, including

human resources, strategy, ESG, production, marketing, and finance. The conference emphasized the integration of theory and practice, focusing on sustainable development issues such as carbon emissions and key talent management. The event specially invited representatives from over 30 enterprises to discuss critical topics, including key talent management and global carbon emissions, collectively promoting ESG and environmental sustainability (Figures 35-36).
 NCUE Campus Headlines: <https://www.ncue.edu.tw/p/406-1000-26570,r93.php?Lang=zh-tw>

	
Figure 35. 2024.05.29 Group Photo of Participants	Figure 36. TSPMA 2024 Strategy and Performance Management Conference – Keynote Speech

(9) 2024 Special Education Conference:

The Department of Special Education and Special Education Center at NCUE organized a special education conference on June 22, 2024, under the theme “Inclusive Education: Integration and Practice.” The keynote speech in the morning focused on trends in inclusive education, and the challenges and response strategies regarding the newly revised Special Education Act. The paper presentation in the afternoon session featured 6 outstanding research papers covering topics including resource room counseling, novice special education teachers’ core competencies readiness and knowledge needs for gender equality education, curriculum adjustments in inclusive classrooms, and support for remote rural school children. Professional moderators and reviewers provided constructive feedback and suggestions (Figures 37-38).

NCUE Campus Headlines: <https://www.ncue.edu.tw/p/406-1000-26718,r93.php?Lang=zh-tw>

	
Figure 37. 2024.06.22 Group Photo	Figure 38. 2024.06.22 Paper

- (10) 2024 Embodied·Imagination®: Emergence, International Conference of Dialogue with Embodied·Imagination® Among Multiple Professionals

Organized by the International Society for Embodied Imagination® (ISEI), the international conference was co-hosted by the Department of Guidance and Counseling, College of Education in NCUE, from August 31 to August 4, 2024, marking Robert Bosnak's "first in-person visit to Taiwan for teaching the Embodied Present Process® (EPP) method." Following nearly 20-30 years of EPP practice in other Asian countries (Japan and China), this conference represented the first in-depth physical dialogue in Taiwan of its diverse interdisciplinary applications of embodied present process in "artificial intelligence, psychotherapy and arts, and healthcare."

The conference was organized into two parts: (a) Pre-conference workshops (July 31 and August 1): A two-day workshop on Jungian archetypal psychology and alchemical psychology; (b) International conference of interdisciplinary dialogue (August 2-4): Focused on cross-interdisciplinary dialogue and application in Embodied Present Process®. Over three days, the conference included 3 thematic forums, 6 experiential Embodied Present Process® (EPP) groups daily (18 sessions total), conducted both in-person and online and led by 8 internationally certified senior Embodied Present Process® practitioners, and 6 interdisciplinary thematic dialogue lectures.

Website: <https://2024-emergence-taiwan.my.canva.site/>

- (11) TSTP2024 Taiwan Symposium on Technology of Plasticity:

The College of Technology at NCUE jointly organized the "TSTP2024 Taiwan Symposium on Technology of Plasticity" with the Taiwan Society for Technology of Plasticity on December 6, 2024. The symposium focused on the latest developments in plastic processing technology and the integration of intelligent manufacturing, enabling participants to collectively discuss innovations and challenges in the field of plastic processing. Through the sharing of knowledge and experiences from various sectors, the symposium aimed to further advance the development of the plastic processing field. This symposium not only helped enhance the application of plastic processing technology but also served as a platform for in-depth dialogue between academia and industry, facilitating effective application of academic research into actual production. It further promoted the advancement of Taiwan's plastic processing technology and strengthened research and development collaboration between academia and small and medium enterprises.

NCUE Campus Headlines: <https://www.ncue.edu.tw/p/406-1000-28898,r93.php?Lang=zh-tw>

- (12) Splendor of Changhua: Developing Wind and Solar Energy Resources (USR Hub) Project:

Through NCUE's energy education programs, the Ministry of Education's undertaking of Phase Three University Social Responsibility Project (2023-2024), and its approval for

NCUE’s project – Splendor of Changhua: Developing Wind and Solar Energy Resources (USR Hub) Project, NCUE utilizes the abundant energy facilities of its Baoshan Campus to organize smart microgrid visits and experiential learning courses at NCUE, enabling the general public and teachers and students from other schools to gain direct understanding and experience with green energy and to explore innovative technologies in smart microgrids. On campus, professors and professional engineers led students in acquiring hands-on skills and knowledge in solar power system installation, guiding students in actually installing solar power generation systems (Figures 39-40).

In 2024, six microgrid field visits focusing on energy storage systems were organized, with a total of 163 participants.

	
Figure 39. External Visitors’ Tour – Participants Conducting an On-Site Visit of Microgrid Field at NCUE	Figure 40. Student-Initiated Activity – Installation of Solar Power Generation System

SDG 4.3.4 Education outreach activities beyond campus

NCUE is one of the three secondary teacher training schools in Taiwan. It has assisted in the professional development of teachers in schools in various townships over the long term and has actively promoted the use of resources outside the school. In addition to the growth workshops in various local schools or community organizations organized by our faculty, it encourages students to independently plan various types of educational and learning activities and organize off-campus service teams. They can go to local schools and remote rural elementary and junior high schools to organize science education experimental camps or off-campus service activities and offer NCUE's learning resources to local elementary and junior high schools and organizations. We will provide detailed explanations and offer relevant links, photos, and data as supporting evidence.

1. Regular Events:

NCUE regularly organizes education outreach activities beyond campus, which cover science education professional training for elementary school and junior high school/high school teachers, Baisha Summer School, Schweitzer-Inspiring Education Service Project, NCUE x Collaborative Education - Enhancing 12-Year Basic Education in Rural Communities, TOEIC Listening and Reading Classes for Students at the Affiliated Senior Industrial Vocational High School of NCUE, and professional training for mathematics teachers. In addition, NCUE also promotes teacher and learning resources to support learning and development in local schools and remote areas.

(1) Professional Training in Science Education for Elementary and Junior High School Teachers:

Hsiao-Lin Tuan, a professor from the Graduate Institute of Science Education at NCUE, executed a project commissioned by the K-12 Education Administration of the Ministry of Education, training natural science teachers from elementary and junior high schools in curriculum design for inquiry-based teaching and cross-disciplinary inquiry (STEM), thereby enhancing their professional competency. In alignment with the Ministry of Education's guidelines and to enhance the design, implementation, and reflection abilities of science teachers in elementary and junior high schools, NCUE not only organizes on-campus training workshops annually, but also conducts educational training for junior high school teachers in northern and southern Taiwan. This initiative allows teachers outside the central region to acquire new knowledge in science education, cultivate outstanding seed teachers in inquiry-based teaching, and collectively improve students' inquiry competencies.

In 2024, NCUE held two training sessions, including an introductory workshop on inquiry in the new curriculum guidelines and an inquiry curriculum implementation workshop (Table 1). These sessions provided 42 hours of training with a total of 51 participants.

Table 1. Overview of Off-Campus Inquiry Curriculum Workshops in 2024

Date	Location	Activity name	Number of students
2024/11/23	National Tainan First Senior High School	Phase II Inquiry Curriculum Design Workshop (Southern Region)	31

2024/12/21	National Tainan First Senior High School	Phase III Inquiry Curriculum Implementation Workshop (Southern Region)	20
Total			51

(2) “Baisha Summer School”:

Since 2011, NCUE has organized the “Baisha Summer School” during the summer vacation. This activity is independently managed by pre-service teachers in NCUE, who form the Baisha Summer School administration and teaching team. In addition, they take on various roles such as principal, members of academic affairs, members of Student affairs, and homeroom teachers. The program aims to help newly-enrolled students in elementary and junior high schools adapt to campus life and experience the most creative and engaging bridging courses.

In 2024 summer, a team of 39 pre-service teachers dedicated their summer vacation to serve at Sijhou Junior High School and Hsin-Yi Public Junior High and Elementary School in Changhua County. These pre-service teachers guided newly-enrolled 113 students to enjoy learning and experience their new lives in junior high school through specially designed courses (Figures 1-4).

Facebook: <https://www.facebook.com/HsinYiSummerSchool/>



Figure 1. Baisha Summer School – Hsin-Yi Public Junior High and Elementary School of Changhua County



Figure 2. Baisha Summer School – Curriculum Expo in Hsin-Yi Public Junior High and Elementary School of Changhua County



Figure 3. Baisha Summer School – Sports Day in Changhua County Sijhou Junior



Figure 4. Baisha Summer School – Changhua County Sijhou Junior High

High School	School
-------------	--------

(3) Schweitzer-Inspiring Education Service Project:

Since 2006, NCUE has continuously promoted the Schweitzer-Inspiring Education Service Project. This project encourages pre-service teachers to put into practice Dr. Schweitzer's philosophy of caring for the underprivileged and providing professional services by providing academic tutorial sessions, character education, and related learning activities in remote rural schools. During the 2024 summer vacation, 19 pre-service teachers served 27 students transitioning from seventh to eighth grade at Hsienhsi Junior High School in Changhua County (Figures 5-6).

NCUE Campus Headlines: <https://www.ncue.edu.tw/p/406-1000-23663,r93.php?Lang=zh-tw>

	
Figure 5. Schweitzer-Inspiring Education Service Project – Academic Subject Stations	Figure 6. Schweitzer-Inspiring Education Service Project – Sports Day

(4) USR – “NCUE x Collaborative Education – Enhancing 12-Year Basic Education in Rural Communities”:

Since 2020, NCUE has implemented this project with the purpose of fulfilling the university's social responsibility, enhancing pre-service teachers' professional teaching competencies, and strengthening their practical teaching abilities. The project focuses on integrating regional resources to provide disadvantaged students in remote rural areas with better learning opportunities and educational resources. In 2024, NCUE collaborated with 6 schools across Changhua County, Yunlin County, and Nantou County to organize summer camps that integrated locally-based curricula and interdisciplinary courses. For example, the bilingual tutoring program “Magic Voyage” at the junior high division of Tianjhong Senior High School employed immersive English activities and role-playing to help students build confidence and enhance their English communication skills. A total of 86 pre-service teacher volunteers participated, serving 231 junior high school students (Figures 7-8).

	
Figure 7. Enhancing Students' English Communication Skills through Immersive English Activities	Figure 8. Group Photo in the Class

(5) TOEIC Listening and Reading Classes for Students at Affiliated Senior Industrial Vocational High School of NCUE:

To meet the needs of both internal and external individuals for workplace skill enhancement, NCUE Language Center offers a variety of foreign language and customized project courses. Since 2020, NCUE has collaborated with The Affiliated Senior Industrial Vocational High School of NCUE (AISVHS) to conduct specialized “TOEIC Listening and Reading Classes.” Two classes are offered in each semester, providing AISVHS students with diverse learning opportunities to strengthen their English language skills.

In 2024, NCUE opened a total of 5 classes, with 158 students completing the courses. These classes helped students improve their English listening and reading abilities (Figure 9).



Figures 9. 2024.09.20 Principal of National Changhua University of Education Affiliated Senior Industrial Vocational High School Encouraging Students on Class Opening Day

(6) Professional Training for Mathematics Teachers:

Since 2015, NCUE has launched the “New Horizon of Mathematics Project” and organized **free** courses that train seed teachers every year. Those who complete the training can obtain certification for their learning hours. Teachers can master mathematical knowledge through observation and practice, and understand the context of mathematical concepts and the main

ideas behind the knowledge, so that they can guide students to develop their concepts more comprehensively and completely in the courses, and can also switch between teaching methods more flexibly. In 2024, NCUE organized 50 sessions of **free** courses (Both physical and digital distance learning sessions), which were attended by 4,565 teachers.

Project Website: <http://www.nhmath.com/NH-MATH/>

Facebook: <https://www.facebook.com/nhmath.tw>

2. On a programmed basis:

NCUE organizes various educational outreach activities beyond campus on an irregular basis. These include faculty members leading national projects to conduct professional training for teachers or science experiments for students in local schools or remote rural elementary and junior high schools. Student clubs in NCUE frequently plan various service-learning activities, including organizing camps for local elementary and junior high schools. Additionally, NCUE implements university social responsibility by addressing environmental and local issues, promoting green energy, and providing environmental education training in various locations.

In the field of arts, in 2024, in addition to regular off-campus exhibitions, NCUE collaborated with the local government to utilize the Changhua Railway Hospital, which is designated as a Country Historic Site, as an exhibition venue. NCUE combined technological applications to host an immersive, expressive art experience exhibition, allowing elderly individuals to engage with digital creations. Simultaneously, we conducted local village art projects to preserve valuable cultural and historical memories.

These diverse activities demonstrate our commitment to extending educational opportunities beyond our campus, engaging with the community, and addressing societal needs through practical applications of academic knowledge.

(1) Professional Learning Communities and Educational Professional Knowledge and Competency Training for Elementary and Junior High School Science Teachers:

Meichun Lydia Wen, a professor from the Graduate Institute of Science Education at NCUE, executed a project approved by the National Science and Technology Council (NSTC) to assist in-service teachers by establishing two professional learning communities and developing interdisciplinary curricula. Through community meetings, she led junior high school teachers in 16 enhancement workshops on lesson preparation.

Additionally, Dr. Wen implemented the Science and Education Project commissioned by the Ministry of Education to organize professional skills enhancement workshops for in-service teachers, totaling 4 sessions. The workshop themes included various STEM education topics such as the integration of slate painting creation and curricula for natural sciences and living technology courses, maintenance and care of heat transfer printing works, fashion shows featuring heat transfer printing works, and analysis and selection of heat transfer printing works, and other interdisciplinary workshop courses (Figures 10-13).

	
Figure 10. Professional Skills Enhancement Workshops for Science Education Teachers	Figure 11. Professional Skills Enhancement Workshops for Science Education Teachers – Hands-On Practice
	
Figure 12. Professional Skills Enhancement Workshops for Science Education Teachers	Figure 13. Professional Skills Enhancement Workshops for Science Education Teachers – Hands-on Practice

(2) Material Design and Teaching Practice of Science Education:

Meichun Lydia Wen, a professor from the Graduate Institute of Science Education at NCUE, implemented a project commissioned by the Ministry of Education to develop teaching materials that align with the spirit of inquiry and practice outlined in the Curriculum Guidelines of 12-Year Basic Education. The developed curricula include “The Fantastic Stage of Alchemy,” “Stacking Fun,” “Chromatography Analysis and Chlorophyll Exploration,” “Spaghetti Toss Challenge,” “The Return of Slime,” and “Acids, Bases, Salty and Sweet,” with each course comprising 3-4 class sessions. The teaching activities were conducted in 4 junior high schools in the Taichung and Changhua regions, with a total of 215 students registered. The courses significantly enhanced students’ abilities of inquiry and practice, facilitated student engagement in learning, and promoted effective scientific knowledge acquisition (Figures 14-17).

	
Figure 14. Prof. Wen's Project – Leading Elementary School Students in Inquiry and Practice	Figure 15. Prof. Wen's Project – Leading Junior High School Students In Inquiry and Practice
	
Figure 16. Prof. Wen's Project – Leading Junior High School Students in Inquiry and Practice	Figure 17. Prof. Wen's Project – Leading Junior High School Students in Inquiry and Practice

(3) Inquiry Curriculum Design and Teaching Practice of Mathematics and Science:

Meichun Lydia Wen, a professor from the Graduate Institute of Science Education at NCUE, implemented a project commissioned by the Ministry of Education to design outreach inquiry curricula of mathematics and science, including “Triangle Naming Journey,” “Two-Step Addition,” “Inductive Reasoning,” “How Long Is One Centimeter,” and “Scientific Drawing,” with each course comprising 2-3 class sessions. The courses were implemented in 3 elementary schools in the Nantou, Taichung, and Changhua regions, with a total of 148 students participating. The courses significantly enhanced students’ abilities of inquiry and practice, facilitated student engagement in learning, and promoted effective mathematical and scientific knowledge acquisition (Figures 18-21).

	
Figure 18. Prof. Wen's Project – Leading Elementary School Students in Inquiry and Practice	Figure 19. Prof. We's Project – Leading Elementary School Students in Inquiry and Practice
	
Figure 20. Prof. Wen's Project – Leading Elementary School Students in Inquiry and Practice	Figure 21. Prof. Wen's Project – Leading Elementary School Students in Inquiry and Practice

(4) Professional Development Project for Natural Science Teachers in Elementary and Junior High Schools: Integrating Inquiry, Motivation into Curriculum Design, and Professional Competency Growth Project for Inquiry-Based Teaching, and Cross-Disciplinary Inquiry (STEM)

- (a) Hsiao-Lin Tuan, a professor from the Graduate Institute of Science Education at NCUE, implemented this project. On July 20, 2024, an in-person “Coach Training Workshop and Consultation Meeting” was held at Zhushi Garden, Sun Moon Lake of Nantou County. The curriculum covered such as STEM cross-disciplinary inquiry courses, challenges, and innovations in inquiry projects. A total of 42 coaching teachers and 9 advanced teachers participated. All participating coaching teachers and advanced seed teachers gained valuable insights and wrote very positive reflections (Figure 22).



Figure 22. 2024/07/20 Coaching Teacher Training Workshop and Consultation Meeting – Held at Zhushi Garden, Sun Moon Lake

(b) Self-Organized Group: As participants engage in this project, their willingness to form self-organized groups based on the needs of inquiry-based teaching has been increasingly growing. In addition to the three-phase workshop mode, NCUE provides more opportunities for these self-organized activities. Teachers who attained advanced and coaching levels through this project serve as instructors, fulfilling the goal of cultivating teacher leaders in this project. In 2024, NCEU held 3 self-organized group sessions (Table 2), each lasting half a day. The total training hours reached 12 hours, with 55 participants in total.

Table 2. Overview of Self-Organized Off-Campus Training Activities for Inquiry Curriculum Participants in 2024

Date	Location	Training Activity	Participants
2024/07/17	National Science Museum	SDG 14 Cross-disciplinary Inquiry-Based Curriculum Design – Using Cetacean Research as an Example, Self-Organized Group 10	16
2024/08/21	Da'an Elementary School, Changhua County	Experiential Inquiry-Based Teaching for Elementary School Unit Curricula – Changhua County Counseling Group, Self-Organized Group 4	19
2024/09/24	Guofeng Junior High School, Hualien County	Improving Test Performance in Comprehensive Assessment Program for Junior High School Students through Inquiry-Based Teaching – Hualien County Counseling Group, Self-Organized Group 5	20
Total		-	55

(5) 2024 International Scientific Literacy vs. Forum on Promoting Short-Term Goals in Science Education:

On December 7, 2024, NCUE organized the “2024 International Scientific Literacy vs. Forum on Promoting Short-Term Goals in Science Education: the Legacy and Inspiration of

International Scientific Literacy for Domestic Science Education Research” at the National Science and Technology Museum in Kaohsiung. The forum aimed to explore trends in international scientific literacy development and connect them with the future of science education research and teaching practice in Taiwan. Held in conjunction with the 40th Annual International Conference of Science Education in Taiwan, the forum attracted participation from national science education experts, teachers, and representatives from the Ministry of Education. Discussions focused on the alignment between the PISA 2025 assessment framework and the Curriculum Guidelines of 12-Year Basic Education. The event emphasized core competencies, including scientific inquiry, argumentation, and critical thinking. This activity demonstrated NCUE’s leadership in promoting science education policy and research, facilitating academic exchange, and effectively realizing short-term goals (Figures 23-24).



Figure 23. 2024.12.07 Group Photo of Distinguished Guests at the Forum



Figure 24. 2024.12.07 Participants Asking Questions and Sharing Ideas

(6) Splendor of Changhua: Developing Wind and Solar Energy Resources (USR Hub):

Through NCUE’s energy education programs and the Ministry of Education’s undertaking of Phase Three (2023-2024) University Social Responsibility Project: Splendor of Changhua: Developing Wind and Solar Energy Resources (USR Hub), NCUE collaborates with elementary and junior high school teachers within Changhua County, along with university faculty and students, to jointly develop locally distinctive curricula and teaching materials with the theme of green energy technology. The project conducts teacher enhancement workshops to equip educators with the competencies necessary to integrate the developed teaching materials into their classroom instruction. Through organizing teacher enhancement workshops and professional development activities, the project extends its reach to elementary schools to address science and technology-related issues while supporting green energy transformation for the elementary and junior high schools, enterprises, and disadvantaged groups in the Changhua region. In 2024, four teacher training workshops for elementary and junior high school educators were conducted, with approximately 100 off-campus teachers participating. Through professional teacher training and enhancement workshops, educators acquired the competencies

to integrate science and technology into classroom instruction, achieving quality education and improving teaching quality (Figure 25).

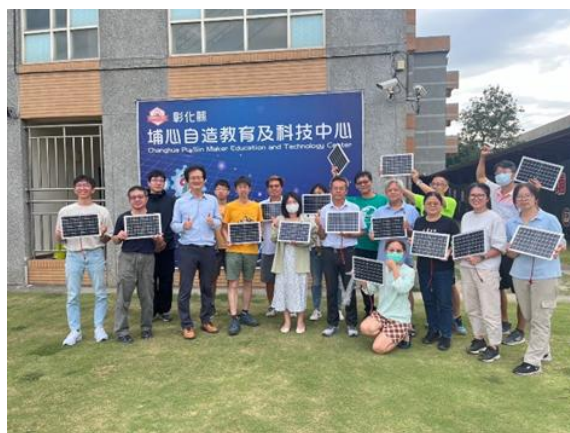


Figure 25. Professional Training in Green Energy Education

(7) Building an Ecological Home and Sustainable Communities: The Changhua Ecological Arts Initiative:

NCUE collaborated with local partners, including Changhua Arts Senior High School, The Affiliated Senior Industrial Vocational School of National Changhua University of Education, and Changhua Christian Hospital, to jointly organize four horticultural therapy activities, serving 87 participants. Furthermore, from August 19 to September 27, 2024, NCUE collaborated with O-Bank Education Foundation to host the “Eco Art & Eco Ark” ecological art exhibition. Five graduates and nine current students displayed 20 artworks under the symbolic theme of “polar regions,” reflecting on human civilization and environmental change through artistic narrative. The exhibition demonstrated how art can engage in environmental issues and inspire social awareness of care and action (Figures 26-28).

NCUE Campus Headlines: <https://www.ncue.edu.tw/p/406-1000-25947,r93.php?Lang=zh-tw>

Exhibition Website: <https://www.o-bankef.org/events/1142>

Video Review: https://www.youtube.com/watch?v=S1u_mO6cQo8

Figure 26. Horticultural Therapy in Changhua Christian Hospital – Green	Figure 27. Artwork Record of “Eco Art & Eco Ark” Ecological Art Exhibition



(8) Student Club Off-Campus Services:

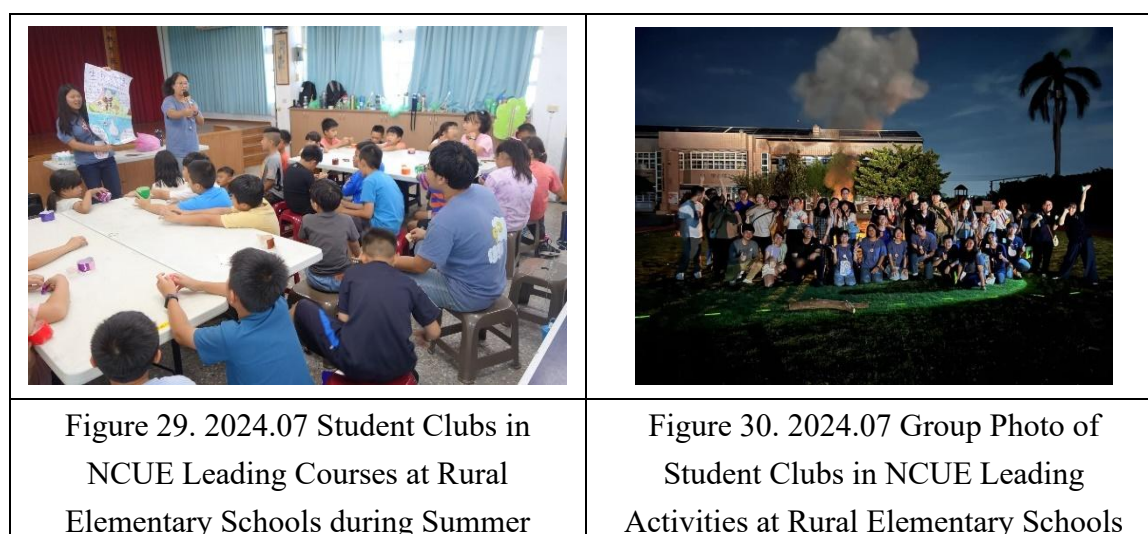
NCUE encourages student clubs and departmental associations to plan various types of educational service-learning activities. We actively engage in leading club activities in junior high and elementary schools in the central region, and enter communities and indigenous tribes to conduct community services. This approach allows students to learn through action and practice the spirit of education.

Service-oriented clubs in NCUE include the Rural Service Club, Mountain Service Club, and Fishing Village Service Club. These clubs annually visit elementary and junior high schools or indigenous tribal areas to organize camps, club education, and service activities.

In 2024, student clubs in NCUE engaged in exchanges and interactions with neighboring and remote rural schools in the central region and organized multiple workshops, courses, and camps. These exchanges not only distributed educational resources to rural areas but also enhanced students' experience and capabilities in participating in social services (Figures 29-32).

Student Club - Rural Service Club Facebook: <https://www.facebook.com/farmlovehome>

Student Club – Mountain Service Club Facebook: <https://www.facebook.com/ncuemountain>



Vacation	
	
Figure 31. 2024.02 Student Clubs in NCUE Leading Courses at Rural Elementary Schools during Summer Vacation	Figure 32. 2024.02 Student Clubs in NCUE Leading Courses at Rural Elementary Schools during Summer Vacation

(9) Anti-Drug Education Advocacy in Junior High and Elementary Schools:

Since 2013, NCUE has committed to helping the anti-drug education take root in schools by applying for funding from the Ministry of Education’s “Service-Learning Model Program for Preventing Student Drug Abuse in Universities and Colleges.” Every year, student clubs in NCUE visit junior high and elementary schools to conduct over 10 anti-drug education sessions. Through theatrical performances featuring costumes, props, and engaging script designs, education sessions demonstrate the harmful effects of the drugs on the human body and how momentary curiosity can lead to dangerous risks. Additionally, the performance introduces how emerging drugs disguise themselves as candy, coffee milk tea packages, or snacks to entice people to try them, and demonstrates how to refuse drugs. The sessions conclude with a prize-winning quiz, enabling junior high and elementary school students to understand drug dangers and develop refusal skills against drugs in an easily comprehensible manner by learning to “Say No to Drugs” (Figures 33-34).

NCUE Campus Headlines: <https://www.ncue.edu.tw/p/406-1000-25559,r93.php?Lang=zh-tw>

	
Figure 33. Anti-Drug Advocacy – Theatrical Performance and Anti-Drug Education	Figure34. Anti-Drug Advocacy – Prize-Winning Q&A Activity

(10) University Social Responsibility Implementation Project: Beautiful and Treasured Clams in Fangyuan and Dacheng: Resilient Changhua Coast: Environmental and Industrial Sustainability Plan Under Climate Change

NCUE implements its University Social Responsibility (USR) through collaboration with aquaculture associations in Changhua County, where NCUE is located. We aim to educate students of all levels and community residents about the ocean and its importance, leading to the formation of water quality teams that jointly propose solutions to local issues along the Changhua coast. The 2024 achievements are as follows:

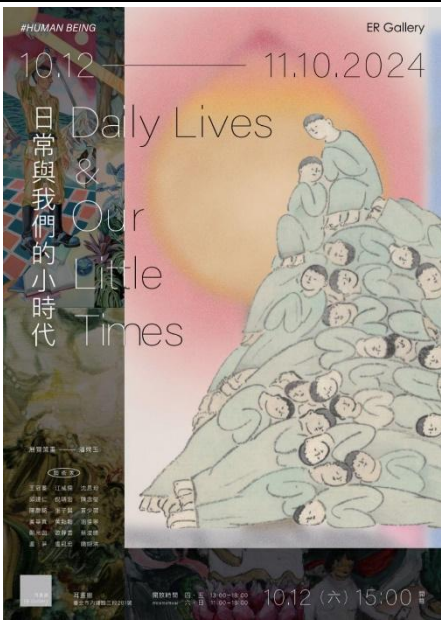
- (a) Curriculum Development: 4 courses were offered, including “Changhua Studies,” “Introduction to Marine Life Sciences,” “Coastal Biological Resources,” and “Sustainable Development and Practice of Coastal Biological Resources.” Currently, 3 students have entered the local industry for internships.
- (b) Product Development and Collaboration: Collaborating with Kun Shan University and National Cheng Kung University, the project developed biochar-made products from shellfish waste, which were honored as Tainan 400 Licensed Merchandise and Presidential Office Gifts for Foreign Dignitaries.
- (c) Marine Education and Habitat Conservation: The project assisted in establishing the Changhua Marine Food Research Base (Ha Ha Fish Farm), which received the “Rural Food and Agricultural Education—Gold Award for Creative Teaching Aid.” This project promoted food and agricultural (fishery) education and utilized waste shells to develop biological reefs to conserve Hanbao Wetland, increasing benthic species diversity from 14 to 37 types.
- (d) Climate Change Education: The project organized environmental education certification programs on climate change of 24, 33, and 100 hours, cultivating 21 seed talents, many of whom received national awards.
- (e) Carbon Reduction and Employment Enhancement: The project trained 79 certification personnel for Carbon Footprint Verification and executed 4 industry-academia collaboration projects to assist Fuxing Industrial Park manufacturers in energy conservation and carbon reduction, thereby enhancing students’ career competitiveness (Figures 35-36).



Figure 35. Biochar Aroma Stones Recognized as Tainan 400 Licensed Merchandise	Figure 36. Changhua Marine Food Research Base (Ha Ha Fish Farm) Received the Gold Award for Creative Teaching Aid of the Rural Food and Agricultural Education
---	--

(11) Off-Campus Art Exhibitions:

In addition to organizing exhibitions on campus, the faculty and students of the Fine Arts Department in NCUE regularly curate off-campus exhibitions, bringing their artistic creations to the wider community. In 2024, it held 23 exhibitions outside the university, providing the public with opportunities to appreciate the professional artworks of faculty and students from the Fine Arts Department (Figures 37-38). <https://artwww.ncue.edu.tw/activity/list/2>
Please refer to the attachment for the Off-Campus Exhibitions list: 4.3.4A- List of Off-Campus Exhibition.

	
Figure 37. 2024/05/14-2024/06/09 Off-Campus Exhibitions Poster	Figure 38. 2024/10/12-2024/11/10 Off-Campus Exhibitions

SDG 4.3.5 Lifelong learning access policy

NCUE organizes various activities and courses without restrictions based on race, religion, disability, immigration status, or gender. Furthermore, to ensure fair learning opportunities for relatively disadvantaged students, including those who are economically disadvantaged, indigenous people, new immigrants, and students of different genders, NCUE has established multiple relevant regulations and policies to protect students' learning rights.

1. Gender Equality:

In 2000, NCUE established the “National Changhua University of Education Gender Equality Education Implementation Regulations,” and in 2004, NCUE set up the “Regulations for the Establishment of Gender Equality Education Committee of National Changhua University of Education.” Through these regulations, NCUE actively builds an educational environment **free** from gender discrimination and assists to improve the situation of students who are disadvantaged due to their gender or sexual orientation. We also protect the right to education for pregnant students and offer necessary assistance. Additionally, NCUE offers gender equality-related courses open to all students, fostering a gender-equal learning environment on campus through collaborative efforts of faculty and students.

NCUE Gender Equity Education Committee Website: <https://genderweb.ncue.edu.tw/files/11-1016-83.php?Lang=zh-tw>

Please refer to the attachment for NCUE's gender equality education policy and specifications: 4.3.5A- Regulations on Gender Equity Education.

2. Tuition and Miscellaneous Fees Reduction for Students with Disabilities, Low-Income Households, Indigenous Identity, and Families in Hardship:

To ensure students can pursue their studies smoothly and alleviate their financial burden, NCUE implements reduction measures for tuition and fees in accordance with the following regulations set by the Ministry of Education:

- (1) “Regulation on Tuition and Miscellaneous Fees for Students of Low-Income and Middle-Low-Income Households Attending Senior Secondary Schools and Above”
- (2) “Regulations on Tuition and Miscellaneous Fee Exemption for Students with Disabilities and Children of Persons with Disabilities”
- (3) “Regulation on Tuition and Miscellaneous Fee Exemption for Indigenous Students Enrolled in Junior Colleges and Universities”
- (4) “Regulations on Tuition and Fees Miscellaneous Fee Exemption for Children and Grandchildren from Families in Hardship Attending Senior High Schools and Above”
- (5) “Act Governing Preferential Treatment on Educational Expense for the Survivors of Military and Civil Servants and School Educators”
- (6) “Regulations on Tuition Exemption for Children of Active-Duty Military Personnel Attending Secondary Schools and Above”

Students who qualify as low-income, middle-low-income, students with disabilities, children of

persons with disabilities, indigenous people, children or grandchildren from families in hardship, dependents of military personnel, civil servants, and educators, or children of active-duty military personnel can apply for partial or full tuition and miscellaneous fee exemption. These regulations ensure they have a fair opportunity to pursue their education without financial concerns.

3. Indigenous students:

- (1) In 2017, NCUE established the Indigenous Student Resource Center to provide services for indigenous students in areas such as daily life, academics, cultural cultivation, and personal development. This center supports indigenous students in developing diverse knowledge and talents related to their ethnic groups. Each academic year, NCUE offers nearly 100 additional admission quotas for indigenous students. After enrollment, we provide tuition and miscellaneous fee exemptions to alleviate their financial burden. We also design comprehensive learning mechanisms and counseling services to reduce the dropout and withdrawal rates of indigenous students, ensuring equal educational opportunities. In addition to providing necessary services for indigenous students, the Indigenous Student Resource Center offers indigenous culture-related courses annually, which are open to all students on campus, to preserve and promote indigenous cultures.

<https://studentweb.ncue.edu.tw/p/412-1003-2282.php?Lang=zh-tw>

- (2) In March 2023, NCUE established the “Admission Regulations for Indigenous-Only Program and launched the “Indigenous-Only Program for Health Promotion and Care Management for the Elderly.” In its inaugural year, we successfully enrolled 28 indigenous students, with enrollment increasing to 35 students in 2023 and 2024. Through interdisciplinary courses and professional practice activities, we guide students in obtaining certifications. NCUE also provides dedicated activity spaces and excellent faculty to help students gain in-depth knowledge of indigenous cultures. Additionally, we ensure that students’ learning rights are fully protected by collecting and acting on student feedback.

<https://acadaff.ncue.edu.tw/var/file/2/1002/img/827/168864090.pdf>

Aboriginal class: <https://coe.ncue.edu.tw/p/412-1033-1648.php?Lang=zh-tw>

4. Economically or Culturally Disadvantaged Students:

Each academic year, economically or culturally disadvantaged students account for approximately 10% of the total student population in NCUE. In 2018, NCUE established the “National Changhua University of Education Eagle Rising Project Incentive Guidelines” (<https://drive.google.com/file/d/1aCNX2yA3TEaXrzBD3vgZMDuo7JCKLhko/view>), with continuous updates, most recently revised on January 18, 2023. These guidelines clearly state our commitment to assisting economically disadvantaged students so that their learning is not affected by financial factors.

NCUE provides tuition and miscellaneous fee exemptions, educational fund subsidies, and related learning support for relatively disadvantaged groups. These ensure fair admission opportunities for disadvantaged students of various backgrounds. In addition to actively providing educational

opportunities for disadvantaged students, we have comprehensively planned for their holistic care throughout their academic journeys. This allows students to focus on their studies and complete their education without financial worries.

These efforts aim to realize the core value and concept of promoting vertical social mobility through equal educational opportunities. The achievements are as follows:

- (1) The number of economically disadvantaged students: The number of economically disadvantaged students in NCUE (including low-income households, middle-low-income households, students with disabilities and children of persons with disabilities, children and grandchildren from families in hardship, those eligible for subsidies under the University/College Financial Aid Program for Disadvantaged Students, indigenous students, and those whose families have suddenly encountered difficulties and been approved by the school) was 703 in 2019, 713 in 2020, 719 in 2021, 731 in 2022, and 749 in 2023, with an average of about 716 students per year. The number of students who receive subsidies has increased annually.
- (2) To support disadvantaged students in their studies, NCUE actively raises educational funds and continuously revises various assistance measures to improve the support mechanism for disadvantaged students. Since 2018, we have invested over 63.9 million NTD in these efforts.
- (3) To ensure students can study without worries, NCUE has implemented a guidance mechanism of “learning instead of part-time work,” allowing economically disadvantaged students to balance their studies and living needs simultaneously. From the first mile of enrollment to the last mile of graduation, we implement a “comprehensive care for students’ learning journey” approach, aiming to help students achieve their goals of “flying in their academic journeys and realizing their dreams.” The learning journey includes guidance for worry-free student life, professional psychological counseling, enhancement of self-directed learning, and career counseling to improve overall competencies. To date, over 11,300 student participants have benefited from these programs. (<https://sites.google.com/gm.ncue.edu.tw/ncueeagle>)

5. Admission and Entrance Examination Subsidies for Economically Disadvantaged Students:

- (1) Since 2018, NCUE has added a “priority admission” mechanism to the university application admission channel, lowering admission standards to enhance admission opportunities for economically disadvantaged students. Furthermore, since 2019, we have established the admission mechanism of “Eagle Rising Groups and Priority Admission,” where certain departments allocate a portion of their admission quotas to various groups. The mechanism applies a comprehensive document review process to lower reliance on the standards in the General Scholastic Ability Test (GSAT), focusing primarily on students’ learning motivation and experiences of overcoming challenges in their educational journeys as the main evaluation criteria. The aim is to increase enrollment opportunities for economically disadvantaged backgrounds.
- (2) To reduce the financial burden on economically disadvantaged students taking entrance

examinations, NCUE exempts economically disadvantaged students (low-income and middle-low-income households) from registration fees for its self-administered admission examinations. Additionally, we provide subsidies for transportation and accommodation expenses required for entrance examinations, further alleviating students' financial burden. In 2024, the subsidy amount totaled NTD 28,000.

6. New Immigrant Students (immigration status):

Considering that new immigrant students, before naturalization in our country, can enter universities through overseas Chinese or foreign student admission channels if they meet the relevant application requirements. However, after naturalization, they must apply as general students, competing under the same standards as local students, which increases the difficulty of their entrance examinations. Therefore, in January 2021, NCUE established the “Regulations on Admission of New Immigrants to National Changhua University of Education.” Starting from 2021, we have been conducting independent admission examinations for new immigrants annually, separate from general student admissions. This approach ensures that new immigrant students have fair opportunities for competition and admission.

<https://acadaff.ncue.edu.tw/var/file/2/1002/img/827/624446750.pdf>

Please refer to the attachment for the application regulations for new residents: 4.3.5B- Regulations of New Immigrants.

SDG 4.4.1 Proportion of first-generation students

Number of students starting a degree

In 2024, the Full-Time Equivalent (FTE) number of students starting their degrees was as follows:

1. Bachelor's degree programs: 1,154 students
2. Master's degree programs: 680 students
3. Doctoral degree programs: 79 students.

Please refer to Figure 1 for details.

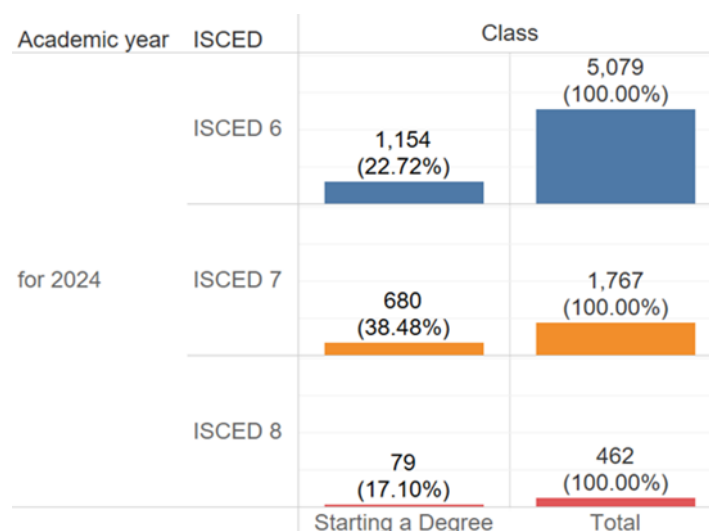


Figure 1. Students Starting a Degree at NCUE in 2024

Number of first-generation students starting a degree

In 2024, among full-time students, the number of first-generation students starting a degree was 670, accounting for 35.02% of the total 1,913 students (Table 1, Figure 2).

Table1. 2024 Number of First-Generation Students Starting a Degree

Program Level	Number of First-Generation Students	Total First-Year Students	Percentage
ISCED6	199	1,154	17.24%
ISCED7	421	680	61.91%
ISCED8	50	79	63.29%
Total	670	1,913	35.02%

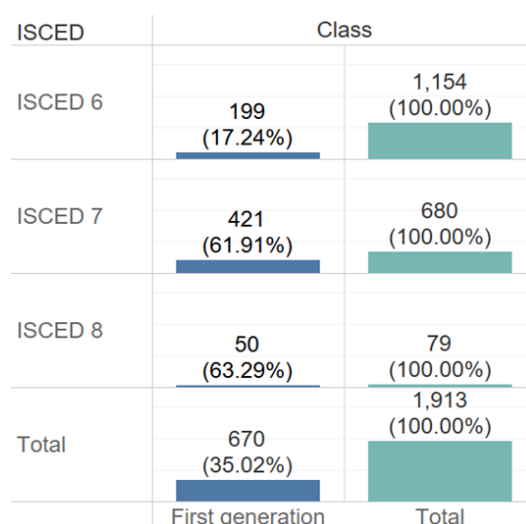


Figure 2. Number of First-Generation Students Starting a Degree in 2024

Supplementary Information:

1. Higher Education in Taiwan Has Become Highly Accessible:

According to the Ministry of the Interior's 14th week statistical report in 2025, as of the end of 2024, the registered population aged 15 and above in Taiwan was 20.658 million. Among them, 10.449 million people had higher education (college degree or above), accounting for 50.6%. Furthermore, OECD statistics showed that in 2023, the average proportion of the population aged 25-64 with higher education across countries was 41%, while Taiwan's rate was as high as 58%, significantly higher than the average. Compared to major countries, Taiwan ranked second only to Canada's 63%, indicating that higher education in Taiwan is quite widespread.

Statistical Bulletin – 2025 by the Ministry of the Interior, please refer to: <https://www.moi.gov.tw/cl.aspx?n=21335>

2. Improving the Education Guidance Mechanism for First-Generation University Students

For first-generation university students, their parents received limited formal education, unable to directly provide immediate learning assistance and resources to the next generation, which easily causes challenges in academic learning, interpersonal relationships, and cultural adaptation. To promote equal educational opportunities, NCUE is dedicated to fulfilling its social responsibility as a national university by promoting upward social mobility, reducing inequitable treatment caused by economically or culturally disadvantaged backgrounds. In alignment with the Higher Education Sprout Project, NCUE provides various guidance programs for students who qualify under the criteria of “first-generation university students from families with three generations without higher education”. Through holistic care covering all stages from admission pathways, academic assistance, to graduation preparation, we help first-generation university students focus on their learning and cultivate their career competitiveness.

(1) Pre-Admission Guarantees and Increased Admission Opportunities

To assist students in pursuing their studies smoothly and demonstrating their potential, NCUE

actively establishes diverse support mechanisms, encouraging each department to allocate additional or reserved admission quotas through different channels, and offering admission opportunities for disadvantaged students. Additionally, we exempt admission-related fees and provide transportation subsidies for disadvantaged students to alleviate their economic pressure.

- (a) **Reserved Quotas for University Admission:** Through the university application admission channel, NCUE provides certain quotas for priority admission of economically disadvantaged students, and establishes the mechanism of “Eagle Rising Group and Priority Admission,” which emphasizes students’ learning motivation and their perseverance throughout their educational journeys. Admission decisions are made based on comprehensive document reviews rather than solely on standardized test results. In the academic year from 2023 to 2024, NCUE admitted 1 and 17 students through this mechanism, respectively.
- (b) **Fee Exemption for Entrance Examinations and Transportation:** To alleviate students’ economic burden and strengthen assistance for disadvantaged students, NCUE exempts application and examination fees for economically disadvantaged students participating in admission exams and provides subsidies for transportation and accommodation. Since the academic year from 2023 to 2024, NCUE has provided approximately NTD 28,000 in subsidies.

(2) Post-Admission Learning Support throughout All Stages in Education

To ensure students can pursue their studies without financial worries, NCUE implements a guidance mechanism of “Learning Instead of Part-Time Work,” enabling economically disadvantaged students to balance both their academic studies and living needs. From the beginning of enrollment to the end of graduation, we thoroughly implement “comprehensive support for students’ learning journey,” helping students achieve the goal of “flying in their academic journeys and realizing their dreams.” The learning journey includes guidance for worry-free student life, professional psychological counseling, enhancement of self-directed learning guidance, and guidance for competency and career development. Table 2 shows the number of students receiving guidance and incentive funds under the mechanism of Eagle Rising and Priority Admission of NCUE in 2024. The number of guidance sessions provided to economically disadvantaged students has reached 2,505. Among these, 640 guidance sessions were provided for first-generation university students, who collectively received incentive grants totaling NTD 3,687,600.

Table 2. Distribution of Incentive Grants under the Eagle Rising Program of NCUE in 2024

	Life Guidance	Psychological Counseling	Learning Guidance	Career Guidance	Total
Number of guidance sessions	329	798	1,343	35	2,505
Students receiving incentive	3,944,000	-	8,636,400	110,000	12,690,400

grants					
Number of first-generation university students	122	149	360	9	640
First-generation university students who received incentive grants	1,317,600	-	2,340,000	30,000	3,687,600

(a) Life Guidance for Worry-Free Student Life:

Through measures such as tuition and miscellaneous fee waivers, guaranteed accommodation, and post-counseling support, including emergency relief, campus meal vouchers, and scholarships, NCUE helps students overcome short-term living and financial hardships. Figures 3-4 show the implementation of Eagle Rising incentive grants and freshman financial aid briefings, as well as sharing sessions of Eagle Rising students' growth.



Figure 3. Briefing on Eagle Rising Program Incentive Grants of NCUE (2024)



Figure 4. Briefing on Freshman Financial Aid

(b) Psychological Counseling and Supportive Companionship:

For students in need of psychological counseling, NCUE provides individualized counseling services, group counseling services, diverse mental health promotion activities (including lectures and workshops), and establishes individualized case management and follow-up for students who need counseling. These services provide students with comprehensive psychological support and assistance, deepening “precision guidance & counseling” to build student resilience and emotional well-being.

(c) Learning Guidance for Academic Excellence and Competency Enhancement:

Oriented by students' needs, mentor-teachers personally guide students in setting learning goals and strategies, planning diverse competency enhancement programs to expand their depth and breadth of learning and developmental appropriateness. The guidance is complemented by various enhancement lectures and workshops, such as a micro-program to further enhance students' knowledge and competency.

(d) Library and Digital Resources for Expanded Learning Support:

Libraries in NCUE currently hold approximately 440,000 volumes in their collection (including Chinese and English books), with an annual investment of approximately NTD 29 million to enrich its library collection. We actively participate in various electronic resource consortia, such as the Taiwan Academic E-book and Database Consortium (TAEBDC), the Consortium on Core Electronic Resource in Taiwan (CONCERT), the University Library E-book Procurement Consortium, and the Chemistry and Physics Promotion Center Consortia. NCUE provides approximately 30 types of electronic resources, including Elsevier ScienceDirect, Springer, Wiley, IEEE, and other electronic resources to meet students' learning and research needs. Students can actively utilize the university's libraries, computer labs, laboratories, and other resources, all of which offer students a high-quality learning environment.

(e) Emergency Relief Fund for NCUE Students:

To support students from financially disadvantaged families and those who face unforeseen emergencies (including first-generation university students from families with three generations of no higher education), NCUE provides emergency relief funds of up to NTD 100,000 per student to help them overcome financial hardship. <https://alumni.ncue.edu.tw/p/405-1017-4685,c1366.php>

(3) Comprehensive Career Guidance Before Graduation for Employment Transition

(a) Establishment of the "Precision Career Development Center" in February 2025: NCUE established the Precision Career Development Center as a dedicated unit to integrate on-campus career guidance resources and develop a support platform, fostering cross-departmental cooperation and working closely with various departments and institutes to provide students with diverse and precise career guidance services.

(b) Enhancing the Diversity and Stability of Students' Future Development: To broaden the diversity and stability of students' future development, NCUE applied for the "2024 Employment Service Subsidy Program in Collaboration with Universities and Colleges" launched by the Taichung-Changhua-Nantou Regional Branch of Workforce Development Agency, Central Taiwan Branch, Ministry of Labor. Under this program, we hired professional consultants to provide individualized career guidance services, with a total of 48 participants, including 8 first-generation university students. NCUE aimed to help students clarify their self-understanding and enhance their self-worth affirmation from an objective perspective, while broadening their horizons on future trends of labor markets (Figures 5-6).



Figure 5. Social Engagement Practice – Community Development Leadership Training



Figure 6: Job Fair – Precision Career Development Center Providing Guidance Services

(4) Encouraging Students to Engage in Remote Rural School Services to Demonstrate Self-Worth

NCUE encourages students to extend their learning beyond the campus by engaging in remote rural education services. Through the service experience, students not only put their professional knowledge and skills into practice, but also realize their self-worth and gain confidence and a sense of achievement through positive feedback from students. The Baisha Summer School, the Schweitzer-Inspiring Service Program, and the University Social Responsibility Implementation Project: NCUE x Collaborative Education: – Enhancing 12-Year Basic Education in Rural Communities serve as exemplary fields for these values, demonstrating the power and significance of first-generation university students in educational service.

(a) Baisha Summer School: Since 2011, the Baisha Summer School has been held annually. It is organized by a team of pre-service teachers who take on various roles such as principal, members of academic affairs, student affairs, general affairs, as well as homeroom teachers. Through this immersive experience, they simulate the operations of a real school and lead newly-enrolled elementary and junior high school students to adapt to campus life while engaging in creative and enthusiastic bridging courses. In the summer of 2024, a total of 39 pre-service teachers (including 4 first-generation university students) served at Sijhou Junior High School and Hsin-Yi Public Junior High and Elementary School in Changhua County. They guided 113 incoming seventh graders to experience the joy of learning and to embrace their new life in junior high school. (Figures 7-10)



Figure 7. Baisha Summer School – Closing Ceremony at Hsin-Yi Public Junior High and Elementary School	Figure 8. Baisha Summer School – Curriculum Expo at Hsin-Yi Public Junior High and Elementary School
	
Figure 9. Baisha Summer School – Sports Day at Sijhou Junior High School	Figure 10. Baisha Summer School – Opening Ceremony at Sijhou Junior High School

- (b) Schweitzer-Inspiring Educational Service Program: Since 2006, the Schweitzer-Inspiring Educational Service Program has embodied the spirit of Dr. Schweitzer by promoting care for the underprivileged and professional services. The participants provide academic tutorial sessions and character education in remote rural schools. In the summer vacation of 2024, 19 pre-service teachers (including 2 first-generation university students) served 27 students transitioning from seventh to eighth grade at Hsienhsi Junior High School in Changhua County (Figures 11-12).

	
Figure 11. Schweitzer-Inspiring Educational Service Program – Academic Subject Stations	Figure 12. Schweitzer-Inspiring Educational Service Program – Sports Day

- (3) USR NCUE x Collaborative Education Project: Launched in 2020, this project aims to fulfill the university's social responsibility, enhance pre-service teachers' professional teaching knowledge, and strengthen their practical teaching competence. It also promotes the integration of regional resources to provide underprivileged students in rural areas with better learning opportunities and educational resources. In 2024, NCUE co-organized summer camps with six

schools across Changhua, Yunlin, and Nantou Counties. These camps incorporated localized curricula and interdisciplinary courses. For example, the bilingual support program “Magical Voyage” at the junior high division of Tianjhong Senior High School employed immersive English activities and role-playing to build students’ confidence and improve their English communication skills. A total of 61 pre-service teachers participated as volunteers (including 12 first-generation university students) by serving 231 junior high school students (Figures 13-14).

	
Figure 13. Enhancing Students’ English Communication Skills through Immersive English Activities	Figure 14. Group Photo in the Classroom