

# National Chin-Yi University of Technology

## Talent Training Program of the Department of Mechanical Engineering



### Interview of Student

The student interviewee, Hao-jun Dai, opted out of the regular flexible college course program and instead enrolled in the Talent Training Program of the Department of Mechanical Engineering, National Chin-Yi University of Technology, after his class mentor's in-class explanation of

the program. The reason for his decision was that he aspired to become more competitive in the society by setting up more specific goals for his own future.

Dai had yearned for the free college life since he entered high school when he was confronted with huge pressure because of tests and exams. After entering

college, he idled for one year. However, he finally realized that the free college life had turned him into an idler and he was afraid that he would never learn anything in college if he didn't make a change. After his class mentor explained about the program in class, it dawned on him that he should devise a schedule so that he could grow and mature in college. He thus decided to apply to the program. His decision received full support from his parents, who knew very well that not only would he be awarded a college degree after completing the program courses, but he could also obtain a job successfully after graduation.

This program is characterized by the principle of 'one step at a time'. The university has a comprehensive plan of the course design. Students receive consultation about application, study, advanced education, and employment. Sophomores, who can intern at collaborating institutions during summer, will work on projects assigned by

collaborating institutions. After finishing their sophomore projects, juniors will share their experiences with the university concerning what they have learned and what problems they have been faced with. Students, instructors, and collaborating institutions will then resolve these issues together. When students become seniors, they return to collaborating institutions for internships so that they can learn more information about the industry. Not only do they learn theoretical knowledge, but they also have opportunities to practice critical skills. They will also learn how to apply school knowledge to the actual problems and needs of the industry. The disparities between school education and industrial practicalities can thus be minimized and students will become professional intellectuals or technicians. In addition to courses planned by the university, collaborating institutions also teach students other skills in the hope of enhancing and expanding their abilities.

The most impressive part of this program

for Dai was his sophomore project at a collaborating institution, where he was supervised by graduates of the university and thus was not confronted with any learning issues. However, during his off-campus internship when he was a senior, he was faced with problems related to equipment operation and colleague interaction. Tai interned at the department of assessment and management. He had to operate measuring devices and equipment. Interaction with other colleagues was a challenge too. He had to learn how to interact with his supervisor and colleagues from other departments if an error occurred in production or measurement. Predicaments, however, prompt people to grow and mature. Dai has worked at his company for 8 months and has gradually figured out how to solve problems and interact with colleagues. He thinks this is the most beneficial part of the program to him.

### **Interview of School Representative**

Information sessions and class mentors' in-class promotion of the Talent Training Program of the Department of Mechanical Engineering, National Chin-Yi University of Technology, serve to help students understand the contents of this program and how it can assist their future development. The step-by-step course design of the program is meant to teach students how to apply school knowledge to practical issues so that students, the university, and collaborating institutions can be all connected and a win-win situation can be created.

There are specific plans of this program for all years of students from freshmen to seniors. Information sessions of the program and collaborating institutions are held for freshmen, who can take such opportunities to familiarize themselves with the program and collaborating institutions that offer internships. Collaborating institutions interview student applicants.

Those who are chosen attend training sessions during summer vacation so that their professional knowledge can be enhanced. Sophomores and juniors of this program are required to take more professional courses than regular students. During summer vacation, the university invites instructors from the industry to conduct some courses to strengthen the basis of students' theoretical knowledge. Off-campus internships of seniors further acquaint students with actual situations that can happen at a factory. Instructors from the industry teach them how to deal with such problems efficiently. After four years of training, graduates of this program are bound to become talented intellectuals and technicians that the industry strives for.

The actual implementation of this program is in fact a huge challenge for the university, as many students are not willing to work at a factory nowadays and prefer to take easier jobs in other industries instead. They do not want to lose their

colorful college life either. Especially at the beginning of this program, students do not fully understand the benefits of this program for their future. When their classmates travel abroad or do sightseeing during summer, students of this program still need to attend training courses. This reduces many students' interests in the program. Nevertheless, students of this program gain relevant experiences in this industry in advance so they can grasp the current trends of the industry and enhance their competitiveness. The disparities between school education and industrial practicalities will be minimized. The university and students have to make efforts together to achieve the goals of this program.

The integration of the university's theoretical courses and practical training, industrial information from collaborating institutions, and students' active attitude facilitate students' on-campus learning of theoretical knowledge and their off-campus practice of skills at factories. They

are able to apply what they have learned in school to practical issues of operation. The disparities between school education and industrial practicalities will be minimized. The university will have a better understanding of industrial requirements on technical skills and can modify course contents accordingly. Collaborating institutions will be able to hire intellectuals and technicians with professional skills. The program is thus beneficial to the future development of all the three parties involved.

### **Interview of Collaborating Institutions**

Through the collaboration between the university and industry, the Talent Training Program of the Department of Mechanical Engineering, National Chin-Yi University of Technology, aims to train students to become talented intellectuals and technicians and create a win-win situation for the university, collaborating institutions, and students.

The director of human resources of

Yinsh Precision Industrial Co., Ltd. was interviewed this time. The reason why this company would like to collaborate with the university in the beginning was the intimate relationship between the two. Many executives, managers, and employees of the company are alumni of the university. They thus know the academic training of the university very well and acclaim the academic achievements of the university. From the perspective of the company, the practical operation in job tasks is intimately connected with the basic professional knowledge taught at the university. The establishment of this program and subsequent internships will thus facilitate the company's recruitment of qualified intellectuals and technicians.

The mode of training proceeds as follows. The company offers guidance to sophomores working on projects by providing professional assistance in collaboration with course instructors. Juniors have opportunities to acquaint themselves with the work environment

of the company in their free time. They are expected to finish their projects with the help of their seniors. While they work on their projects in the junior year, they also have opportunities to understand the system and organization of the company. After they become seniors and finish taking all the required courses, they are allowed to intern at the company for one year if they identify with the company culture.

As the program participants are still students, they are more willing to learn and take on job tasks than fresh graduates. In terms of guidance and supervision, an employee of the company teaches an intern how to do his/her jobs step by step. Students are able to apply their professional knowledge to actual job tasks and are guided by their seniors in handling their job tasks. Their work abilities and professional knowledge are expected to become comparable to a full-time employee. This is beneficial to the development of the company.

This program has been implemented for almost 4 years. In the beginning, the university and the company had not figured out the best way to collaborate. Nevertheless, due to constant meetings between the university and the company, both parties were able to suggest improvements to each other and modify the collaboration mode accordingly. So far, the details of collaboration have almost been completed. It is hoped that the company can continue providing students with internship opportunities through the implementation of this program. The company will be able to recruit qualified intellectuals and technicians efficiently and the costs of training will then be reduced.