# Higher Education



Taiwan enjoys excellent global competitiveness in spite of limited land and natural resources. According to the World Competitiveness Yearbook 2012 published by the International Institute for Management Development (IMD) in Switzerland, Taiwan ranked seventh overall in global competitiveness among 59 countries, and was notably outstanding in "Economic Performance" and "Business Efficiency."

One reason for Taiwan's economic prowess is its quality human resources, an accomplishment closely tied to the issue of higher education. In the Global Competitiveness Report published by World Economic Forum (WEF) published in 2012, Taiwan ranked ninth in "Higher Education and Training." Taiwan's human resources provide highly-qualified workers in sufficient supply to the labor market and brings positive benefits for industry innovation.

### Universities, Colleges and Junior Colleges

Higher education institutions in Taiwan include 2-year junior colleges, 5-year junior colleges, and universities. Like most countries, the study period is 4 years for an undergraduate university degree, 1 to 4 years for a master degree, and 2 to 7 years for a doctoral degree.

The popularization of education has led to a rapid increase in universities, colleges and student enrollment numbers, although the figure has leveled off in recent decades. In SY2012, there were 162 universities and colleges and 1,355,290 students.

Reforms in teacher training have played an important part in the expansion of higher education. Significant improvements in teacher quality can be attributed to policy adaptations and the newly implemented evaluation system. Currently, Ph.D. degree holders account for over 80% of faculty in universities, the figure having increased by 15% in the past 10 years. Professors account for one-third of all teaching personnel.

To maintain competitiveness, Taiwan's government has invested more than US\$400 million in higher education annually to encourage universities to enhance their standards for research and teaching, and the results have been remarkable.

Although Taiwan's higher education system has gained recognition for its achievements in many areas, tuition still remains very reasonable. Tuition is about NT \$58,720 (US\$1,924) dollars per year at public universities, and about NT\$109,944 (US\$3,552) dollars at private universities. College tuition stands at only 10~20% of the national per capita GDP, considerably lower than that of many other countries, which in some cases is over 30%.

The Ministry of Education and several universities have jointly established the Higher Education Evaluation and Accreditation Council of Taiwan to conduct evaluations of universities. This evaluation consists of Institutional Evaluation and Program Evaluation.

The former is held every 6 years to examine whether schools have achieved their strategic goals, while the latter examines the quality of faculty, teaching, research, and service. The Ministry also encourages universities to obtain international certification. The Higher Education Evaluation and Accreditation Council of Taiwan, for example, is a member of several international organizations, such as the Asia-Pacific Quality Network (APQN) and the International Network for Quality Assurance Agencies in Higher Education (INQAAHE).

Another of Taiwan's significant achievements is in the area of "Innovation". In a report from the World Economic Forum (WEF), Taiwan ranked fourteenth among 133 countries in innovation in 2012. To encourage students to unleash their creativity, the Ministry screens and selects outstanding students to study abroad under sponsorship by the government. In recent years, students from Taiwan have been making their mark in international design competitions such as Germany's iF Awards and Red Dot Award every year.





## More Signs of Progress in Education

Everywhere around the world competition is getting fiercer and more talent is migrating across borders. How can Taiwan's higher education industry face up to these challenges so as to promote commercial innovation while strengthening Taiwan's international competitiveness?

Knowledge and innovation is the only way to increase global competitiveness. Countries the world over spare no effort in investing in the cultivation of innovation and talent by improving their higher education systems. Thus since 2006, the Ministry of Education has been promoting a plan to develop world-class universities and research centers. The program was renamed "Heading toward Top Universities" and has been in place since April 2011. After 7 years, we are now reaping the rewards:

# Taiwan is reaching out to

Seven years after the plan started, 10 of the universities subsidized by this plan are ranked in the world's top 500 universities as well as the world's top 100 universities in the global university rankings (UK's The Times and Quacquarelli Symonds, QS). In addition, eight schools are ranked among the 500 schools in Shanghai Jiao Tong University's Academic Ranking of World Universities and their ranks improved year by year. This is a sign that the subsidized schools have inspired themselves to meet international benchmarks and rise up to international competition with the top schools in the world.

# The quality of students continues to improve

Top universities in Taiwan have instigated reforms in their general education systems and interdisciplinary programs. Currently, there are 85,072 students enrolled in interdisciplinary programs. The universities are also fulfilling their social responsibilities, as seen in actions like support of disadvantaged students.

There are currently a total of 17,072 disadvantaged students enrolled in colleges and universities, a figure growing at an average rate of 139% annually.

In addition, the top universities have also responded to public outcry at poor higher education quality, promising to improve the learning environment and boost student motivation to enhance the quality of university students.

# The University is becoming a place for innovation in business

Taiwan's innovative ability has been recognized in the World Competitiveness Yearbook published by IMD. In recent years, the number of patents and new breeds developed by Taiwanese universities has grown by 131%, and income from intellectual property rights has increased by 216%. This momentum will in turn stimulate more innovations and increase contributions to society.

# Campuses play host to the world

Internationalization" is the key to global visibility. Whether the universities in a country are attractive to foreigners is also a criterion in evaluating national power. More than 50,000 foreign scholars have visited Taiwan, and nearly 50,000 foreign students are studying in Taiwan's top universities. On average, almost 450 international conferences are held in top Taiwanese universities each year, thereby broadening the horizons of Taiwanese students.



### Vocational and Technological Colleges and Universities

The institutions in this category include junior colleges, technical colleges, and universities of technology, accounting for a total of 91 schools. Junior colleges are divided into 2-year programs and 5-year programs. Technical colleges and universities of technology can admit students for associate degrees, bachelor degrees, and masters degrees, while universities of technology can also accept Ph.D. students.

In accordance with government policy, the key points for development in these schools are:

#### 1 Implement multiple-route admissions

Vocational and technological colleges and universities recruit students through separate examination and enrollment systems:

- (1) 5-year junior colleges recruit graduates of junior high schools. Entrance methods include examination-free entrance, application and drawing lots, and placement.
- (2) The 4-year colleges/universities and the 2-year junior colleges employ the following methods:
- a screening by skill;
- b recommendation;
- c registration and placement;
- d The Star Plan, which is designed to balance the gap between urban and rural areas and support disadvantaged students in remote areas;
- e application using the Subject Competence Test for a given year and other written reviews that may be beneficial for the review.
- (3) 2-year colleges accept the graduates of 5-year and 2-year vocational schools through several methods:
- a recommendations of students with outstanding skills;
- b registration and placement;
- c individual recruitment.

### 2 Enhance teaching quality:

promotion of government programs, enhancement of teaching quality, and adoption of a practical



#### approach towards teaching:

- (1) Implement the Program for Promoting Teaching Excellence for vocational and technological colleges and universities, the goals of which are:
- a Enhance professional teaching skills;
- **b** Strengthen curriculum design;
- c Strengthen student motivation;
- d Set up teaching evaluation systems;
- Implement and/or improve all areas related to teaching quality.
- (2) Strengthen teaching and learning abilities
- a Offer subsidies for instructors to gain work experience in public and private firms.
- **b** Recruit from industry to enhance teaching.
- Promote off-campus internships.
- (3) Encourage students to participate in various competitions

Since SY2010, outstanding students have been able to apply for airfare subsidies to take part in international competitions and exhibitions.

(4) Encourage professional certification
Instructors and students are encouraged to obtain
professional certification to improve teaching quality and
enhance students' competitiveness in the job market.





Promote evaluations of vocational and technological colleges and universities

Each school is evaluated as an integral unit every 5 years to improve quality of education.

#### Promote cooperation between the industry and academia to cultivate talent

Encourage interaction between academia and industry; design specific courses or curricula to meet the needs of industry personnel.

(1) Collaboration between industry and academia Develop vertical education systems, i.e., 3 in 1 (vocational high schools + vocational colleges + enterprises) and 4 in 1 (vocational high schools + vocational colleges + enterprises + employment training centers) programs in various combinations of education plans:

3+2 3 years in vocational high school and 2 years in 2-year junior college;

3+2+2 3 years in vocational high school, 2 years in 2-year junior college, and 2 years in a 2-year



technical college/university completion progra);

3+4 3 years in vocational high school and 4 years in a technical college/university;

5+2 5 years of junior college plus 2 years in a technical college/university completion program

- (2) Masters Degree Program for Industry Professionals
- (3) "Final Mile" Program
- (4) Second-Baccalaureate Program

#### Emphasize innovation and research development

To encourage collaboration between schools and industry, the government offers subsidies to schools that establish regional cooperative work-study centers and promotes the "Industrial Region Work-Study Program", with the goal of improving the national economy and contributing to society.

#### Launch international partnerships and exchanges

To cultivate international talent, the government encourages schools to establish an international environment, including internationalized campuses, curricula, and administration systems, and promote global cooperation and exchanges, including international collaboration in research and teaching, teacher and student exchanges and other collaborative programs.

#### Develop technological university paradiams

Guide technological universities to build the research and development environment for industry and academic innovations and bring about the cultivation of talent and intellectual properties in this area. Establish diverse paradigms for the characteristic development of vocational and technological colleges and universities to encourage seamless collaboration between the schools and industry and strengthen the foundation of industry and technology.



### Lai Rou-jun, 22, a graduate of the Hwa Hsia Institute of Technology's Department of Applied Cosmetology

As the saying goes, a newborn calf fears not the tiger. The first time Lai Rou-jun participated in the Asian Hairstyling & Make-up Competition in 2012, she outperformed some 40 other contestants to claim the title in the banquet hairstyle group.

Then a senior in the Department of Applied Cosmetology, Lai derived her idea for the winning hair design from S-shaped wave hair and C-shaped hair, both representative Las Vegas hairstyles calling for demanding skill.

Lai incorporated the two features into a Japanese bun hairstyle that she was good at, creating a unique hybrid of both Japanese elegance and avant-garde pop art for the Japan contest session. Later Lai developed another style which mixed

sharp-pointed images with a balanced fan-shaped base in the finals in Hong Kong.

Seeing excellent works from various countries has lent Lai a peek into diverse aesthetics. "For instance, contestants from Japan tend to seek various levels of simplicity and elegance, while competitors from Hong Kong strive for creative effects that highlight their skills," said Lai.

A keen observer like Lai takes every chance to analyze the characteristics and variations in every work and to learn from them. "I hope to create more visual effects that have not been tried yet, and therefore lead the way in the industry," says the ambitious titleholder.

In instructor Shih Mei-fang's opinion, students' creative thinking and open-minded attitudes are priceless treasures. "No matter how great the idea may be, a robust foundation of skills is still necessary for a quality outcome," says the teacher. "Continuous effort and practice might be lonely and frustrating, but is essential for students who wish to embark on a hairstyling career."



Hung Ting-wei was only a graduate student when he captured a gold medal at the Food & Hotel Asia 2012 Imperial Challenge in Singapore, beating out other eight teams from Singapore, Shanghai, Beijing, Hong Kong, Korea, and Malaysia.

Touted as the Olympics of Chinese culinary arts, the Challenge is held once every four years. In the 2012 edition, the criteria for the competition were elevated to a new height. Contestants had to prepare and serve 35 sets of dishes in four and a half hours, as opposed to the former requirement of 10 sets. A set is defined as a meat dish, seafood, vegetables, snacks, and a cold dish, plus six side dishes.

To be well prepared for the contest, Hung spent nearly a year collecting representative Taiwanese food ingredients and practicing his skills. The winning menu centered on health and included duck breast rolls, black tuna, sponge cucumber noodles, and dragon beard candy. "We incorporate local ingredients into our dishes, in the hope of pushing Taiwan's culinary arts onto the international stage," said Hung.

Equipped with speed and substantial cooking skills, Hung and his team outperformed other competitors to bag the Gold Award at preliminaries and the Gold with Distinction at competition finals.

Hung has participated in various international competitions, holding to the belief that only through consistent practices and effort can one forge his skills and broaden his horizons.

A frequent winner in international contests, he says he wants to combine theory and practice more seamlessly. "Instead of becoming a copycat, I would like to become a real culinary artist who possesses skills, art, and — last but not least — morals."