VIETNAM NATIONAL UNIVERSITY - HO CHI MINH CITY

Power of Synergy

"...Vietnam National University-Ho Chi Minh City, the top university in the hierarchy of the Higher Education..."

Prof. Pham Phu
With its excellent achievements in labor and creativity which contribute to the Socialist construction and the national protection, VNU-HCM University of Science was awarded by President Nguyen Minh Triet the "Hero of Labor" medal which was hung on the University’s traditional flag on 21st November 2010. This is a very glorious milestone during 70 years of its establishment and development. Moreover, this also reflects the strong determination of its staff, teachers and students to reach a new height of science and intelligence.

University of Science: Reaching a New Height
The University of Science (US), former Indochina College of Science was established in 1941. In 1957, it was changed into the Faculty of Science of the University of Saigon, which was then one of the first universities of natural science in the South. When the anti-America movement erupted throughout the Southern area, it became a place for patriotic students who established the first Vietnamese Communist Party Cell in a Southern university. Many members of this organization have become senior leaders of the country.

In 1978, the Faculty of Science of Saigon University merged with the University of Letters to become Ho Chi Minh City University. At that time, there were a lot of famous professors and scientists from the North and the South working there and making valuable contributions to society and science. In 1996, the University was restructured and separated into two different ones: University of Natural Sciences and University of Social Sciences and Humanities as key members of VNU-HCM. At present, after 70 years of construction and 15 years of development within VNU-HCM system, the University of Science has become a leading center for training and research in natural sciences in the Southern region, producing high-tech workforce for the country.

Currently, the University has more than 1,200 staff, 9 faculties, 15 specializations and 14 centers for education, research and technology transfer. For 5 years (2005 - 2010), it trained 42 doctoral degree holders and 1,064 master’s degree ones. With 16,000 undergraduate students and 1,600 graduate students, it has also successfully balanced the size and the quality with an annually increasing number of good graduates.

The academic affairs administration has been computerized and significantly improved. Moreover, the University has successfully run the advanced program of the Ministry of Education in information technology, which has gotten the first rank for years. Its information technology field also obtained the highest score in Vietnam in the international assessment conducted by ASEAN University Network in December 2009. Since 1994, the University of Science is one of the first two universities in the country where credit-based system has been implemented. So far, it has basically completed
the adjustment of undergraduate programs in accordance with the requirements of the Ministry of Education. It has also actively cooperated with other VNU-HCM affiliates to explore credit equivalencies.

In addition to excellent achievements in training, the University of Science has determined to connect teaching with basic research as well as to transform key scientific and technological results into production.

Integrating into the globalization trend, the University of Science has strengthened international cooperation and promoted the networking with ASEAN universities. Till now, there have been more than 50 agreements between the University with other universities, institutes and scientific organizations around the world. International conferences and seminars as well as student exchange programs have been extensively organized. Besides, undergraduate and graduate programs have been conducted in cooperation with leading universities in the world.

The University’s Communist Party Committee has been recognized transparent and sustainable for years. Its Communist Youth Union and the Student Union have been considered as flagships in Ho Chi Minh City.

With the tireless efforts of its teachers and students, on 11th September 2010 President Nguyen Minh Triet signed Decision No. 1538/QD-TCN to honor the University as the “Hero of Labor” in recognition of its excellent achievements in labor and creativity, contributing to the socialist construction and national defense.

On Vietnamese Teacher’s day 20/11, President Nguyen Minh Triet, a former student, paid a visit to the University and awarded it the medal on behalf of the Party and the State. Proud of the achievements and contributions of the University, he said “The University of Science must promote research and applications. Our research level is acceptable but still behind other universities in the world. The application is limited. We have to strengthen the linkage between research and applications. Moreover, there should be more schemes to facilitate the partnerships of universities and between universities and enterprises. Both the State and
enterprises will ask the University to apply its research into the national modernization and industrialization... The University of Science used to be a strong unit in the revolutionary struggle and now have to maintain its position to promote a better teaching and learning process."

Rector Dr. Duong Ai Phuong acknowledged that the "Hero of Labor" medal marked a significant milestone in the University's history. This great honor was dedicated to all faculty members and students. More significantly, it would not be gained without the sacrifice of older generations who participated in the national liberation struggle. The lofty revolutionary spirit has laid a foundation for continuous personal development of the young generation, contributing to the quality and success of the University of Science. The award also reminds each member of the University to make endless efforts for a better developed university.

With its continuous improvements, the University of Science has become a leading center for education, research and application, improving its competitive capacity and asserting its position within VNU-HCM and the national higher education system. According to the speech of VNU-HCM President Assoc. Prof. Dr. Phan Thanh Binh, "The University of Science has a marvelous history of construction and an awesome present of affirmation. There are a lot to do, but the University possesses all needed resources such as dedicated faculty and staff, active and talented students and strong determination. It will certainly make great strides and fulfill all targets".

**Major awards**
- Hero of Labor (2010)
- Order of Honor (2007)
- Order of Labor Glory, 1st class (2000)
University of Economics and Laws: Construction and Development within VNU-HCM system

University of Economics and Laws, the 6th member of VNU-HCM was established on 24 March 2010 according to Decision 377/QD/TTg by the Prime Minister. Its precursor was the Faculty of Economics founded on 6 November 2000 in accordance with the Decision 441/QĐ/ĐHQG/TCCB issued by VNU-HCM President.
Its main campus is located in Linh Xuan Ward, Thu Duc District, Ho Chi Minh City with the total area of 11.1 hectares. The University of Economic and Laws provides undergraduate and graduate education, scientific research and technology transfer in economics, banking and finance, laws, business and management to meet the needs of socio-economic development in the process of industrialization, modernization and international integration of the country.

For ten years, the former Faculty of Economics and the current University of Economics and Laws have made great strides in the fulfillment of the missions assigned by VNU-HCM Communist Party Committee and Board of Presidents. In initial days, there was only 12 staff working in a very difficult condition with limited facilities. However, thanks to the supports and directions of VNU-HCM Communist Party Committee and Board of Presidents as well as functional departments and other affiliates of VNU-HCM such as the University of Science, the problems have been solved with great efforts of all faculty members and staff. So far the University has obtained a lot of achievements in personnel development, undergraduate and graduate education, scientific research and international relations, facility upgrade and establishment of unions.

Up to now, there are nearly 230 tenured staff and faculty members working for the University, among which include 145 faculty members (95% of the proportion is post graduate degree holders with 1 professor, 4 associate professors, 1 doctor of sciences and 32 doctors.). A lot of administrators and instructors are taking post graduate programs both at local and foreign institutions. In addition, its organizational structure has constantly been expanded and upgraded. There are now eight offices, seven faculties, two departments, two centers for research, training, consulting and services. Professional development is always concentrated to improve the effectiveness in higher education management.

In the academic year 2001-2002, the University started to offer three undergraduate majors with 300 full-time students. After 10 cohorts, there are now eleven majors for Bachelor's (more than 6,800 students), six for Master's and three for doctorate's degree. (more than 400 graduates). The curricula are designed based on those of prestigious local and international universities. In 2004, the University of Economic and Laws began the credit-based system and joined to implement the "undergraduate honors programs". It has also focused on designing and publishing materials, textbooks and reference books. Its graduates of the past 6 cohorts have been highly evaluated by employers.

Scientific research is actively and enthusiastically conducted by staff and faculty. There were 29 national and ministerial projects hosted by the University and 64 institution-level ones done. Moreover, 30 national and international seminars have been successfully organized. The research programs and the seminars / conferences have made positive contributions, both in theory and practical application, to the socio-economic development.

International cooperation has been constantly developed and expanded, creating a close connection between the University and other universities, institutes and enterprises, both locally and globally. Agreements on faculty exchange, student exchange, joint training and joint research have been signed between the University and foreign partners like University
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of Sunderland (England), University of Toulouse (France), University of Heibron (Germany) and University of Miami (U.S.A), etc.

In recent years, the University has focused on investing and upgrading facilities, lecture halls and workplace in order to improve its education and research quality. Under the plan 1/500 of the project QG-HCM-12, in an area of 11.1 ha in Linh Xuan Ward, Thu Duc District, the University Headquarters (13,997 m²) and its multi-function hall (2,229m²) are to be available for use.

The activities of the Communist Party Committee, Labor Union, Youth Union and Students Association have gained great achievements. Through such organizations, great social campaigns have been efficiently held. Fulfilling their political missions, the Communist Party Committee, Labor Union, Youth Union and Students Association of the University have obtained many awards.

With the achievements in more than 10 years, the University and its staff have been granted a lot of noble titles and awards by the Communist Party, the Government, the Ministry of Education and Training, and VNU-HCM. In specific, it was awarded the Certificate of Excellence by VNU-HCM in 2002 and 2003. In 2004, it received the Certificate of Merit by the Ministry of Education and Training, and by the Prime Minister in 2005. In 2007 the Order of Labor Glory, 3rd Class was granted for the University.

In his speech at the opening ceremony of the University, Assoc. Prof. Dr. Phan Thanh Binh, VNU-HCM President, emphasized: "The establishment of University of Economics and Laws is one of the most important events in 2010 - the 15th year of VNU-HCM. This is not only a happiness and pride among its staff, faculty and students but also a great honor of VNU-HCM. The foundation of the University has proved not only the great growth of VNU-HCM but also the power of a comprehensive multidisciplinary system with natural science, social sciences and humanities, information technology, economics and laws as well as health science. This will enhance the confidence, strength, capability and social accountability of VNU-HCM."

The establishment of the University will open up a new phase of its development with new position and strengths to fulfill the goal: developing the University of Economics and Laws into a high quality and advanced center for undergraduate and graduate education, scientific research and technology transfer in economics, banking and finance, laws, business and management. By 2020, it is expected to become a research university which can best compete with top local universities and strongly affirms the prestige in the region and beyond.

Being a member university of VNU-HCM, the University is making great efforts to enhance the power of synergy of VNU-HCM. It will also continuously upgrade the quality of training programs to meet the high demands of the society. Besides, it will develop resources and maintain a good cooperation with enterprises and alumni in order to create breakthrough growth.
International University: Developing research strengths in VNU-HCM system

The International University (IU) is the first public university in Vietnam, where all courses are taught in English. Being established to modernize Vietnamese higher education system, IU is always actively seeking new developments. Among these is biomedical engineering.
Biomedical engineering is a multi-disciplinary field that applies advanced technologies to promote new methods of study and create medical equipments for health care as well as enhance deeper understanding on human biological process. Biomedical engineering is set up in March 2009 with its training code firstly available in Vietnam (52.42.02.04). Biomedical engineering aims at combining education and research with entrepreneurship under the motto of High quality, Sustainability, and Usefulness.

To meet a great demand of the society, Department of Biomedical Engineering focuses on manufacturing research and application of medical equipments and provides a good educational preparation (both in knowledge and skills) for students so that they are able to work in an interference field that contains Medicare, Biology, and Technology. Moreover, they can master the operation, maintenance, and creation of medical equipments. In addition to enhancing student's creativity and critical thinking, self-study and group work, the training program is designed to build up students' ability in science and technology. Thanks to these purposes, students are expected to become upper-managers in related fields. The research program aims at bringing practical benefits as follows: (1) co-operation between students and doctors in disease treatment and research study, and (2) opportunities for lecturers to work on topics that are really unique in Vietnam in order to attract researchers, international students, and Viet Kieu (Oversea Vietnamese) and quickly integrate in international scientific community.

**Development orientations:**

1. Assist Vietnam to build up the medical equipment industry via:
   - Manufacturing handheld devices and homecare devices.
   - Developing ways of data transferring in order to serve the telemedicine.
   - Transferring advanced technology to encourage and attract individuals in manufacturing medical equipments suitable and appropriate to situations in Vietnam and other developing countries.

2. Set up a hospital educational university specializing in biomedical engineering in term of co-operations with privates to create service place, internship, and collaboration

3. Cooperate with the Ministries and other universities to transfer technology into medicine and biology
4. Cooperate with Biomedical Engineering departments of universities in the world regarding research study, lecture and student exchange, and development of teaching and learning through video-conferencing
5. Attract talents of different origins but with shared directions
6. Expand its vision through developing new majors such as regenerative medicine

Preliminary results:
So far, the Department of Biomedical Engineering has basically developed its faculty, research teams, facilities and research projects.
1. Faculty: one Prof., Dr. (American), two Dr. (Japanese and Australian), one post-graduate (Thais), one post-graduate (Korean), two post-graduate (Vietnamese) and three graduates (Vietnamese)
3. Facilities
   ■ Research room sponsored by VNU-HCM
   ■ Design room sponsored by IU
   ■ LAB room for students supported by Medic Center and Ho Chi Minh City Eye Hospital
4. Current sponsored projects:
   ■ Survey on medical equipments used by hospitals sponsored by Research Fund of IU in association of an American intern of Fulbright
   ■ Electronic fetal heart rate monitoring by non-destructive method sponsored by Research Fund of IU.
   ■ Chaos and Fractals non-linear algorithms for analysis of electro-encephalic waves supporting epilepsy diagnosis sponsored by Department of Science and Technology
   ■ Chaos and Fractals non-linear algorithms analyzing near-infrared spectroscopy for monitoring brain activity sponsored by Research Fund of VNU-HCM.
   ■ Research and manufacture of medical equipments used to measure health indicators such as heart rate, blood pressure, oxygen in the blood and telemedicine sponsored by Key Research Fund of VNU-HCM.
   ■ The relationship between the equilibrium of cheek teeth and the arm's strength sponsored by NAFOSTED, Ministry of Science and Technology.
According to the resolution of VNU-HCM Council on 19 March 2010, the President signed the Decision 641/DHQG-TCCB dated 21 June 2010 on the establishment of John Von Neumann Center of Excellence (JVN) as an affiliate of VNU-HCM. The mission of JVN is to develop high quality research and education in systems science, knowledge science, informatics and applied mathematics. Its objective in 2010 is to build up a foundation for the five year plan 2011-2015.

JVN has obtained the cooperation of the world-class scientists such as Prof. Dr. Ho Tu Bao in charge of Knowledge Science, Prof. Dr. Pham Xuan Huyen - a famous specialist in financial accounting in charge of Applied Math, Assoc. Prof. Dr. Cao Hoang Tru in charge of Informatics, Prof. Dr. Vu Ha Van of University of Rutgers, Prof. Dr. Jean-Marc Steyaeart in charge of Consulting Committee under the supervision of Prof. Dr. Laurent El Ghaoui from University of California, Berkeley. Many tenured positions have been appointed such as Prof. Dr. Pham Hi Duc, a world-class expert in Computational Finance, Prof. Dr. Marc Bui, a specialist in Complex System, and Nguyen Trung Lap and Dang Ngoc Minh, talented Ph.D. candidates in Quantitative Finance.

Among different programs of JVN, two strategic programs named Digital Society and Sustainable Computational Finance, have been taking place. In Digital Society, a dual degree international graduate program majoring in Information Technology and Communication – a joint venture of VNU-HCM and ParisTech co-developed by University of Science, has started the cohort 2010 with 22 students from advanced and honors programs of University of Technology and University of Science. In addition, as part of the program, the Digital Media Lab, co-established by JVN and Dat Viet VAC Holdings, was immediately supported by the industries such as IFI Solution JSC, Vinagame Corporation, and LogiGear Corporation with 12 graduate intern scholarships per year for five years.

In 2011, JVN will implement its strategic projects aiming at developing itself into a place for young Vietnamese scientists to work and do research upon their return from studying abroad.
A combination between the health science and other sciences such as natural science, social sciences - humanities, engineering and technological science, economics and management science has created a comprehensive multi-disciplinary system in training and research study in VNU-HCM. Besides, health science and public healthcare through examination and treatment are special areas in which research findings and achievements of other sciences can best be applied. Therefore, the development of health science will create a very potential market for key majors offered by VNU-HCM, making a significant contribution to perfect the comprehensive multi-disciplinary model of VNU-HCM.

The School of Medicine was founded in June 6, 2009 according to the decision 700/QĐ-DHQG-TCCB by VNU-HCM President as one of its members. The school is orientated to become a good and high quality training institution based on the model of School - Hospital where training and research are closely connected with typical mechanisms in order to attract well-qualified staff.

At the 2010 national entrance examination, the School of Medicine officially recruited its first cohort.
"Having a limited number of students for each class along with good facilities and English speaking environment for academic purposes, the School of Medicine is very suitable to those who really want to study in a modern and advanced environment..."

By Nguyen Tan Thien, valedictorian of School of Medicine, 2010
… The Ministry highly supports VNU-HCM’s participation in the education of well-qualified human resources for the healthcare sector. Simultaneously, we strongly recommend VNU-HCM to take advantage of the strengths of a comprehensive multi-disciplinary university in order to train and provide high-qualified doctors who can meet both standard requirements of the Ministry of Health and possess typical features of VNU-HCM…

By Dr. Nguyen Quoc Trieu, Health Minister

“The School of Medicine is a very unique member of VNU-HCM… with typical characteristics of a medical school under a comprehensive multi-disciplinary university… The School of Medicine must be a modern hospital and training institution that constantly reach international standards. It will enjoy a high degree of autonomy in terms of operational activities, organization and relations; and must be highly accountable to the society. VNU-HCM School of Medicine is an open organization which is ready to cooperate with other medical universities nationwide and well apply research outputs of other fields. It must also actively use social resources for the continuous growth…”

By Assoc. Prof Dr. Phan Thanh Binh, VNU-HCM President

“The initiative of building the School of Medicine - the start of a Healthcare University at VNU-HCM has been developed for more than ten years. This is a significant and necessary project that must be available in the comprehensive multi-disciplinary system like VNU-HCM. The school is a special training organization because of its advantages compared to similar ones in Vietnam. The great supports of healthcare related majors of VNU-HCM such as Nano Center, Biomedical Engineering, Stem Cells, Environment, and Humanities, etc. have facilitated the perfect growth of the School. It aims at an innovative and advanced education: becoming a high quality training institution for healthcare sector in which students will be well equipped with foreign languages and sufficient specialized knowledge so that they can work and do research efficiently, conduct technology transfer, and integrate in the regional medical industry.

Being a new school of VNU-HCM, the School of Medicine takes more advantages such as new-born foundation, open-management styles, a limited number of enrollments per year (100 students) and autonomous financial management. It is evenly allowed to be independent in school fee that is suitable to its quality and development. Hopefully, the school will become a ‘pilot’ in medical training”.

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By Prof. Dr. Dang Van Phuoc
"The Management Board of the School of Medicine is developing a new training program in medicine. The program aims at educating doctors who can meet both the development of the medicine and the society in the future. This program has received many different supports and helps, but, in my opinion, it is really a big project with a lot of difficulties and challenges. There should be a long term and well-planned investment on human, conditions, and facilities in order to make the program successful and even successful as soon as possible. In addition to the clinical medicine, the School of Medicine of VNU-HCM should be in cooperation with other sciences. Almost current inventions of medicine are all related to the application of basic sciences into the medicine. Determining the School of Medicine of VNU-HCM belonging to the health science proves the visions and development strategies of VNU-HCM toward the medicine.

In order to obtain the above goal, the School of Medicine should expand and attract staff from different fields and sources because it is currently a popular trend all over the world. In foreign countries, there are a lot of famous professors of different medical areas, but they are not doctors. Similarly, scientists with Nobel Prize in medicine are not all the doctors, and Nobel in Medicine 2010 is a typical example. Based on suitable visions and strategies of VNU-HCM in addition to intellectual potentials of Vietnamese people, I hope that there will be doctors who are able to work and well-compete with other doctors in the region and in the world. And then the School of Medicine will become one of the top schools providing high-qualified medical staff for Vietnam".

By Ho Manh Tuong, M.Sc., Lecturer of School of Medicine

"The School of Medicine makes contributions in training human resources in medical care that cannot be fully functioned by current universities of medicine. Having an open mechanism, it can take advantages of the faculty from other units, hospitals, and even retired instructors. With its own ability and the assistance of Austria, it is able to start a new and well-equipped training campus, and design an advanced training program. At the right start, it must standardize the facilities such as Labs, classrooms and halls, libraries, teaching hospitals which are strongly required for a medical school... Taking advantages of cooperative relationships, the training program must be credit-based and well-designed according to Austrian curriculum (at European standards). More emphasis should be paid on the training quality, not on the quantity. A limited number of students per class must be well-maintained in order to guarantee the quality of teaching and learning. Similarly to other medical schools in the world, the School must be responsible for general doctor training, and all doctors must take further in-hospital training from 3-5 years for a special major after graduation. More attentions to English learning should be taken into consideration so that doctors can take further education on fellowship or Ph.D. at institutions or universities of medicine, or hospitals in developed countries. Training combined with research and taking advantages of the strengths are required to synchronously develop basic and specialist of medicine".

By Assoc. Prof. Dr. Nguyen Tan Binh, Rector of Pham Ngoc Thach University of Medicine
"I really admire Mr. Sinh, who has taught me biology. It was very interesting in his lessons because we were encouraged for a self-study and research. If being asked to choose the major again, medicine will, once again, be my choice."

By Ngo Duc Anh, valedictorian of the School of Medicine, 2010