



Nong Lam University, Ho Chi Minh City



Faculty of Animal Science and Veterinary Medicine

*Regional Workshop for Veterinary Education Establishments  
(VEEs) and Veterinary Statutory Bodies (VSBs)*

# EXPERIENCES OF OIE VETERINARY EDUCATION TWINNING PROJECT

*Le Quang Thong*

*Vo Thi Tra An*



**33<sup>rd</sup>  
WORLD VETERINARY CONGRESS**

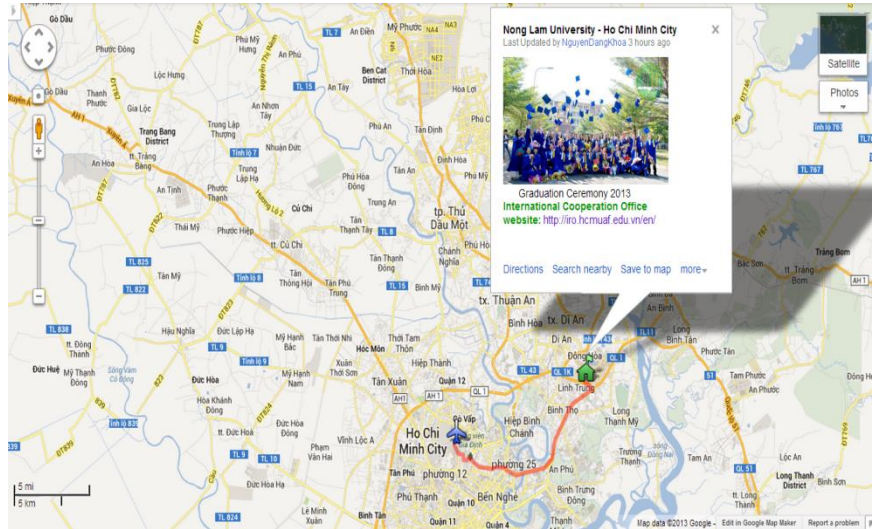
2017 인천 세계수의사대회  
Songdo ConvensiA, Incheon, KOREA  
August 27(SUN)~ 31(THU), 2017



*"One Health, New Wave"*



# About Nong Lam University



Nong Lam University - Ho Chi Minh City (NLU) is one of the top agricultural universities in Vietnam





# About the University



**College of Agriculture at Blao (1955)**

**National Agricultural Center (1963)**

**National Agricultural Institute (1972)**

**University of Agriculture No. 4 (1975)**

**University of Agriculture & Forestry of  
Ho Chi Minh City (1985)**

**Nong Lam University – Ho Chi Minh City (2000)**



medicine – NLU - HCMC



# Faculty of Animal Science and Veterinary Medicine

- ✓ established in 1955
- ✓ is one of the biggest faculties of Nong Lam University (NLU)
- ✓ is the country's center of excellence in Animal Science and Veterinary Medicine education, research and extension.
- ✓ Try to become one of South East Asia's leading institutions in the field.







Photo Lê Văn Thọ  
Chụp năm 1982 trước cửa khu chữ "U" ĐH Nông Lâm



# Academic Programs

## Undergraduate Programs

- ✓ *Veterinary Sciences (5 years)*
- ✓ *Advanced Veterinary Medicine (5,5 years)*
- ✓ *Animal Sciences (4 years)*



## Advanced Veterinary Medicine Program: 2010

- *In collaboration with Queensland University – Australia (whole project)*
- *In collaboration with VetAgro Sup University (Vet school of Lyon), France (Exchange staffs)*









# Academic Programs



## ➤ Master of Science and PhD. programs

### In Vietnamese

- Animal Science
- Veterinary Medicine

### In English

- Master of **Veterinary Public Health**  
(collaboration with *The school of Veterinary science of Queensland - Australia*) from 2018



# OIE TWINNING PROJECT (UQ-NLU)



# Project team

<b>UQ (parent)</b>	<b>Duty</b>	<b>NLU (candidate)</b>	<b>Duty</b>
<b>Glen Coleman</b>	<b>Dean</b>	<b>Nguyễn Tất Toàn</b>	<b>Dean</b>
<b>Jennifer Seddon</b>	<b>Leader</b>	<b>Võ Thị Trà An</b>	<b>Leader</b>
<b>Paul Mills</b>	<b>Member</b>	<b>Lê Quang Thông</b>	<b>Member</b>
<b>John Hills</b>	<b>Member</b>	<b>Hồ Thị Kim Hoa</b>	<b>Member</b>
<b>Helen Keats</b>	<b>Member</b>	<b>Lê Thanh Hiền</b>	<b>Member</b>
<b>Kit Parke</b>	<b>Member</b>	<b>Đường Chi Mai</b>	<b>Member</b>
<b>Rowland Cobbold</b>	<b>Member</b>	<b>Nguyễn Văn Nhã</b>	<b>Member</b>
<b>Steven Kopp</b>	<b>Member</b>	<b>Nguyễn Ngọc Tuấn</b>	<b>Member</b>

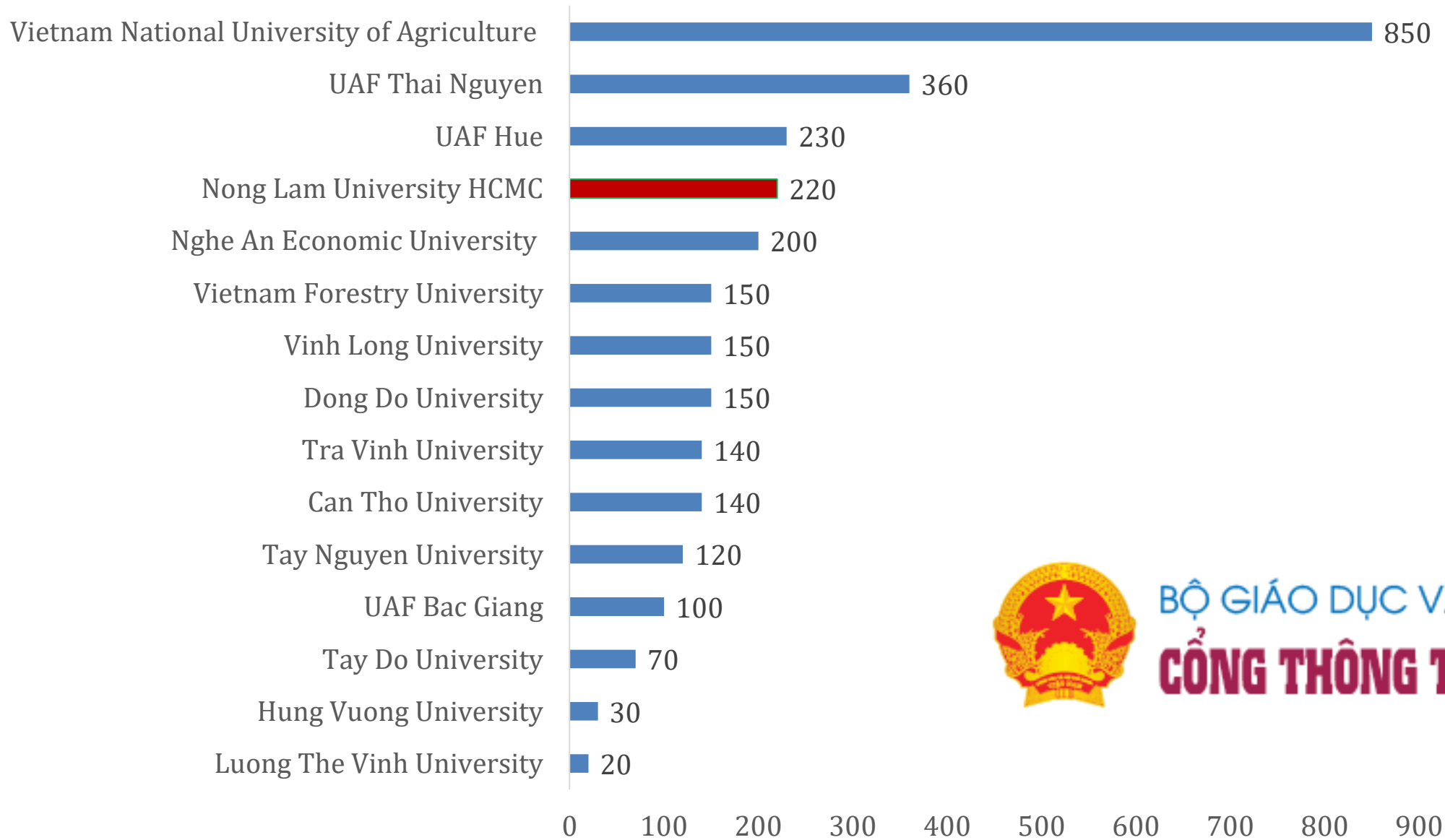
# Goals and objectives

**GOAL:** facilitate development of a sustainable veterinary program of international quality at NLU, Vietnam

- Objective 1: Analysis of curriculum (**Advanced Program in Veterinary Medicine**)
- Objective 2: Build capacity of veterinary teaching staff
- Objective 3: Develop outcomes assessment processes
- Objective 4. Dissemination results of the OIE Twinning Project

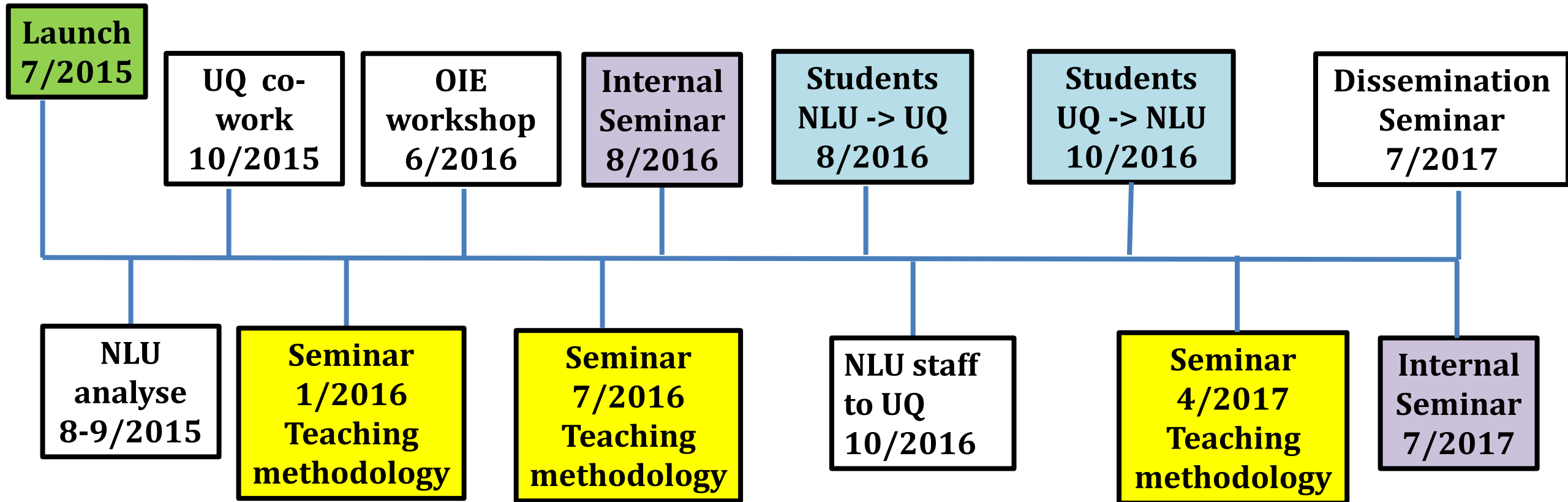


## Number of intake Veterinary student 2017



BỘ GIÁO DỤC VÀ ĐÀO TẠO  
CÔNG THÔNG TIN TUYỂN SINH

# Project in progress







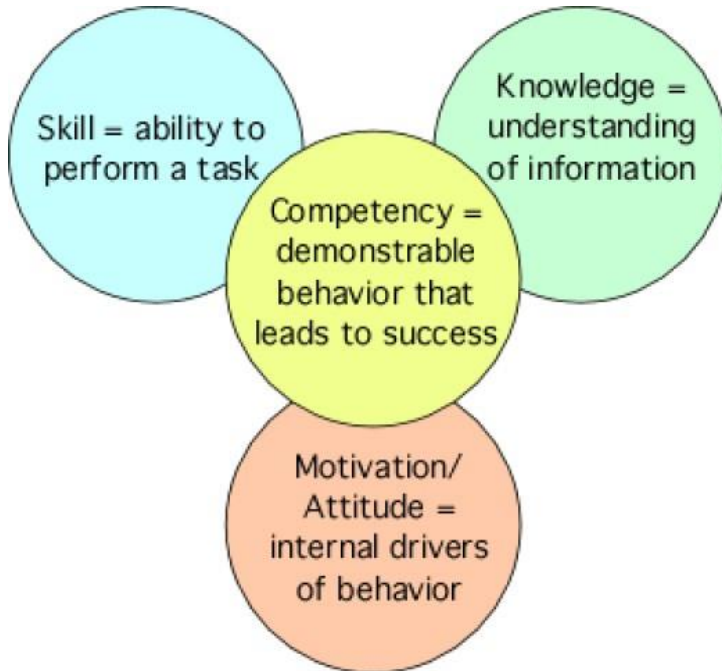
# ANALYSIS OF CURRENT CURRICULUM

# Day One competences

## Competencies means:

- knowledge: cognitive abilities, meaning mental skills
- skills: ability to perform specific tasks
- attitude: affective abilities, meaning feelings and emotions, and
- aptitude: a student's natural ability, talent, or capacity for learning.

## 2.6. Food hygiene



Food hygiene means all conditions and measures necessary to ensure the safety and suitability of food of animal origin.

Specific learning objectives for this competency include the Day 1 veterinary graduate being able to:

- understand and explain on-farm food safety practices;
- participate in slaughter inspection: this includes *ante mortem*, *post mortem* and humane slaughter;
- understand and explain the integration between animal health controls and veterinary public health: the role of veterinarians in conjunction with physicians, public health practitioners, and risk analysts to ensure safe.




# Curriculum Gap Analysis


<b>Data Source</b>	<b>Activity</b>
<b>Curriculum</b>	<b>Analysis by NLU team against OIE Core Curriculum</b> <b>Analysis against OIE Day One Competencies and some additional competencies of AVMA/AVBC/RCVS</b>
<b>Students</b>	<b>Survey on teaching methods</b> <b>Focus groups within year cohorts by UQ team on teaching methods and curriculum</b>
<b>Staff</b>	<b>Survey on teaching methods</b> <b>Discussion in group following survey and during gap team meetings</b>
<b>Timetables</b>	<b>Analysis of amount of teaching and sequencing of courses</b>
<b>Examinations</b>	<b>Evaluation of depth of learning in examination papers</b>
<b>Grades</b>	<b>Analysis of grade distribution of courses and cohorts</b>
<b>Resources</b>	<b>Tour of clinical facilities</b>
<b>Sub-department of Animal Health</b>	<b>Discussion with Sub-Department of Animal Health of Ho Chi Minh City</b> <b>Tour of diagnostic laboratories and veterinary clinic</b>

# Model Core Veterinary Curriculum


Course or course content	Sequence in VEE Curriculum	Day 1 Competencies addressed			Description
		General	Specific	Advanced	
<b>Biochemistry</b>	Early	✓			Biochemistry provides the linkage between the inanimate world of chemistry and the living world of biology. Course content should provide the veterinary student with a broad understanding of the structure and function of essential biological molecules (e.g., proteins, lipids, carbohydrates, DNA, RNA) and metabolic and regulatory pathways. Comparative features among animal species of particular relevance to the Member Country should be highlighted.
<b>Genetics</b>	Early	✓			Genetics is the branch of biology that deals with heredity, especially the mechanisms of hereditary transmission and variation

TWINNING  
VET ERINARY EDUCATION
September 2013





A Guide  
to Veterinary  
Education  
Twinning  
Projects



Hoa	National and international veterinary legislation	<ul style="list-style-type: none"> <li>- Disease prevention and control program</li> <li>- Food hygiene</li> <li>- Veterinary products</li> <li>- Animal welfare</li> <li>- Veterinary legislation and</li> </ul>	<ul style="list-style-type: none"> <li>Organisation of Veterinary Services and Inspection program</li> <li>Food hygiene Management</li> <li>of Veterinary products</li> <li>diseases</li> <li>Food hygiene</li> <li>International trade and</li> </ul>	<p><b>VETS5012 - Vet Public Health</b> OIE, Codex Alimentarius Commission</p> <p><b>* Do not have any course that contains:</b></p> <ul style="list-style-type: none"> <li>- legislation and organisational structure</li> <li>- the formulation and implementation of public policy at the local, national, regional and international levels through legislation, regulation and operational strategy in:                             <ul style="list-style-type: none"> <li>--- disease control, food hygiene, vet legislation.</li> </ul> </li> </ul> <p><b>* Vietnam does not have policy on: animal welfare, vet ethics</b></p> <p>- Actually, in the regular program there is a subject named "Luật Thú y" (National veterinary legislation). --&gt; should add this course into the Advanced Program.</p> <p><b>VETS5011</b></p> <ul style="list-style-type: none"> <li>- Vet Law (3h) international law</li> </ul>	<p>Course content may be referred to by other names such as: <a href="#">Public Policy, Veterinary Policy; Governmental Policy.</a></p> <p>Regardless, course content should provide the veterinary student with an overview of the <a href="#">formulation and implementation of public policy at the local, national, regional and international levels through legislation, regulation and operational strategy.</a> Relevant public policy related to veterinary medicine, animal and human health such as health inspections and certification, food safety, animal disease control, animal welfare and trade in animals and animal products should be addressed. Focus should be on <a href="#">legislation and organisational structure</a> of the specific Member Country and the</p>
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Questions	2014	2013	2012	2011	Overall
1. It is helpful for me to have a clear understanding of the aims and goals of the course and class	4.1	4.1	4.7	3.9	4.1
2. My teachers explain the aims and objectives of each class to me	4.0	3.9	4.4	4.1	4.1
3. I find my courses intellectually stimulating	3.7	3.6	4.0	3.7	3.7
4. My courses are well structured	3.6	3.8	4.0	3.4	3.7
5. I have sufficient access to learning materials to assist me in my courses	4.1	3.5	4.0	3.7	3.8
6. I always understand what the <b>assessment requirements</b> are and what I need to do to pass the course	3.1	3.8	3.7	3.4	3.4
7. I receive <b>helpful feedback</b> from my teachers on how I am going during my courses	3.5	3.9	3.8	3.4	3.6
8. My courses are <b>well organised</b>	3.5	3.9	3.6	3.3	3.6
9. My teachers are good at explaining concepts	4.0	4.1	4.2	4.0	4.1
10. I am able to ask questions in my classes	4.4	4.3	4.6	4.6	4.4
11. I would like to be more actively involved in my classes	4.4	4.1	4.3	4.4	4.3
12. My teachers treat me with respect	4.2	4.3	4.0	4.4	4.3
13. I am able to approach my teachers if I don't understand something or need extra help	4.1	4.4	4.1	4.2	4.2
14. My teachers inspire me to learn	3.9	3.8	3.9	4.0	3.9
15. I believe it is more important to understand concepts than remember facts	3.6	4.1	4.2	3.7	3.8
Average	3.9	4.0	4.1	3.9	3.9



<b>16. Overall, what aspects of teaching in my courses have helped you learn the most?</b>		
<b>Use of clinical/practical examples, pics, videos</b> etc. to assist with learning	18	18%
<b>Increased my knowledge</b> , careful to <b>ensure key concepts</b> clear	15	15%
<b>Improve our English skills</b> , especially in a veterinary context	12	12%
<b>Increased my desire to learn</b> , especially from their experience	11	11%
Useful learning materials	8	8%
Improved my practical skills / like practicals	6	6%
International perspective	5	5%
Opportunities to ask questions/contact teachers	4	4%
Use of interactive methods - asking questions, requiring students to present	3	3%
Overseas internship opportunities	3	3%
Commitment of NLU & UQ staff	3	3%
Helped me plan my future	2	2%
Classes are well organised/structured	2	2%
Opportunities to learn outside of the course	2	2%
Treated students with respect	2	2%
Good feedback during the course	2	2%
Learning about wildlife and conservation	1	1%
Inspire me to help animals	1	1%
	100	

# Survey on teaching methods

- **What's a good lecture?**
  - Q's to stimulate
  - Good ppt
  - Engage students – do something
  - Q's in class at end of lecture
  - References = textbook, website
- **What if you were dean?**
  - Improve on materials
  - UQ & Vietnamese lectures should give same content
  - Vietnamese and UQ lectures should co-teach
  - Make the course of **6 years**
  - \*\*\*More learning time – **more pracs** and spread UQ lectures out
  - \*\*\***Teacher training**

# Practical limitation: why?

- Limited staff availability;
- **Financial constraints** for **practical class** consumables (for example for PCR or ELISA tests);
- Access to **farms and clinical placements**, primarily due to the administrative time required to make links with placement providers;
- Lack of access to slaughterhouses because of political sensitivities;
- **Academic staff inexperience in clinical or production cases** limiting scenario-based practical development.



# Recommendation

- *Develop learning objectives for program and courses*
- *Practical Class Development*
- *Disease investigation scenarios and simulations*
- *Others: Veterinary Legislation, Administration, Veterinary Pathology, Animal welfare*

# **BUILDING CAPACITY OF TEACHING STAFF**



# Improvement: outcomes

## 1. Kiến thức

- Có năng lực chuyên môn về thú y, bao gồm thực hiện các thao tác phòng thí nghiệm; chẩn đoán bệnh thông thường; biết sử dụng một số dược phẩm, hóa chất, vaccin phòng trị bệnh cho chăn nuôi; xây dựng chương trình thú y cho trại chăn nuôi.
- Có hiểu biết về luật thú y, thị trường thuốc thú y, thị trường chăn nuôi; kiến thức về tiếp thị, giao tiếp.
- Có kiến thức về một số ngành liên quan gần như chăn nuôi gia súc, chăn nuôi thú cảnh, nuôi thủy sản, trồng trọt.
- Có thể đọc tài liệu chuyên ngành tiếng Anh hoặc tiếng Pháp; có trình độ tiếng Anh tương đương với mức quy định chung của chuẩn quốc gia.

## 2. Kỹ năng

- Kỹ năng phòng thí nghiệm liên quan chăn nuôi hoặc thú y.
- Tự thiết kế, thực hiện thí nghiệm chuyên ngành.
- Thực hiện, chỉ đạo thực hiện các quy trình phòng, chống bệnh.
- Kiểm soát giết mổ theo quy định luật pháp về vệ sinh an toàn thực phẩm.
- Sử dụng máy vi tính với các phần mềm văn phòng và phần mềm phân tích thống kê cho các công việc lưu trữ dữ liệu, phân tích thống kê, lập báo cáo, trình bày báo cáo.
- Tổ chức, điều hành hoạt động phòng khám thú y.

## 3. Thái độ

- Có hiểu biết về các tổ chức nhà nước, quan hệ công chúng
- Có lòng yêu nghề, nhận thức được vai trò, trách nhiệm của bác sĩ thú y trong chuyên môn và xã hội.
- Có tinh thần cầu tiến, chủ động, sáng tạo trong học tập, công việc. Sẵn sàng hoàn thành các nhiệm vụ được giao.
- Bản lĩnh, tự tin, khẳng định được mức độ năng lực được đào tạo.

## 4. Hành vi

- Có hành vi, hành động phù hợp với quy định pháp luật hiện hành, các chuẩn mực đạo đức trong xã hội.
- Có tinh thần tự chủ, tự chịu trách nhiệm
- Thể hiện trình độ chuyên môn tốt kết hợp với hành vi đúng mực của mức độ tốt nghiệp đại học.



# 5 GENERAL ATTRIBUTES

## G1 Information Skills

- i. Use traditional and electronic resources for retrieval of relevant, reliable and current information
- ii. Demonstrate critical and analytical skills in evaluating the validity of information
- iii. Collate, synthesise and interpret information appropriately
- iv. Summarise and present information in a coherent manner
- v. Incorporate scientific method, quality assurance and evidence-based medicine
- vi. Have well developed observational skills

## G2 Planning and Decision Making

- i. Recognise areas of veterinary responsibility and responsibilities of the responding veterinarian specifically and respond appropriately
- ii. Obtain sufficient information about the situation
- iii. Draw valid conclusions, including the identification and ranking of problems
- iv. Recognise the interests and expectations of all stakeholders, including the broader profession and community
- v. Accept and plan for other people's values and opinions, and different emotional, economic and practical contexts
- vi. Identify desired outcomes and the nature of the veterinary input required to achieve these
- vii. Predict and accept the implications and consequences of decisions
- viii. Deal effectively with uncertainty and re-evaluate decisions based on new information
- ix. Be able to justify the reasons for opinions and advice

## G3 Interpersonal and Communication Skills

- i. Communicate effectively by oral, written and electronic means with colleagues, clients and the general public
- ii. Listen to and consider the needs of the client/audience
- iii. Maintain orderly, legible records of veterinary work in a form suitable for professional colleagues and the public
- iv. Be able to produce case reports in written, electronic or oral formats
- v. Work in a team, and appreciate multi-disciplinary approaches to problems
- vi. Take a leadership role when appropriate
- vii. Effectively manage interpersonal conflict
- viii. Observe professional responsibilities to instruct and direct others
- ix. Appreciate cultural diversity and history that underpin feelings, emotions and values as elements of communication

# 22 VETERINARY ATTRIBUTES

<b>V7</b>	<b>Perform relevant ancillary diagnostic tests and procedures where appropriate</b>
<b>i.</b>	<b>Select appropriate ancillary diagnostic tests and procedures, based on the diagnostic plan</b>
<b>ii.</b>	<b>Evaluate the scope, role and limitations of ancillary diagnostic techniques, including technical accuracy</b>
<b>iii.</b>	<b>Evaluate the costs, risks and benefits for procedures, including patient factors, client resources and likely outcomes</b>
<b>iv.</b>	<b>Operate equipment and perform tests as per standard procedure and/or regulations</b>
<b>v.</b>	<b>Recognise the importance of, and apply principles of, quality control in diagnostic tests and procedures and account for artefacts</b>
<b>vi.</b>	<b>Collect, preserve and transport samples so as to maximise diagnostic value and comply with regulations</b>
<b>V8</b>	<b>Interpret and synthesize outcomes of history, physical examination and ancillary diagnostics to refine diagnoses and offer prognoses</b>
<b>i.</b>	<b>Apply rational diagnostic process to all information generated to create provisional diagnoses or refined differential diagnoses</b>
<b>ii.</b>	<b>Identify probable interrelationships among abnormalities, and recognise the organ system(s) involved</b>
<b>iii.</b>	<b>Recognise and approach disease problems on the basis of their being common, uncommon, zoonotic or notifiable</b>
<b>iv.</b>	<b>Determine prognoses for provisional diagnoses, including cost-benefits analyses where appropriate</b>
<b>v.</b>	<b>Discuss with client the diagnoses and associated levels of certainty, prognoses and other outcome possibilities</b>
<b>V9</b>	<b>Develop strategies for dealing with various diagnoses</b>
<b>i.</b>	<b>Recognise the more common diseases associated with various geographic regions, husbandry systems, patient signalment, etc.</b>
<b>ii.</b>	<b>Identify management and/or therapeutic options to deal with identified problems or diagnoses based on rational, clinical approaches</b>
<b>iii.</b>	<b>Re-consider or amend management and/or therapeutic options based on:</b>
	<b>Clients' situation and/or objectives with respect to economic, cultural, sociological, emotional, human-animal bond issues</b>
	<b>Treatment costs, risk/benefits and practical feasibility</b>
	<b>Resources immediately available, including the graduate's competence and ability to seek external support</b>
	<b>Potential human and animal health outcomes, animal welfare issues, legal requirements</b>
<b>iv.</b>	<b>Develop strategies for dealing with uncommon endemic diagnoses, based on foundational knowledge, rational process, and external resources</b>
<b>v.</b>	<b>Recognise the possibility of a notifiable disease and respond appropriately</b>
<b>V10</b>	<b>Apply principles of biosecurity and infection control</b>
<b>i.</b>	<b>Understand and use epidemiological principles to implement pathogen and disease control</b>
<b>ii.</b>	<b>Identify and effectively employ sources of relevant information about infectious diseases</b>
<b>iii.</b>	<b>Recognise implications of public health, animal health and welfare, and socio-economic outcomes in designing infectious disease control approaches</b>
<b>iv.</b>	<b>Recognise the roles and limitations of surveillance, screening and confirmatory tests in disease control contexts</b>
<b>v.</b>	<b>Distinguish non-infectious causal factors from infectious agents, and appreciate causal interactions between the host, agent and environment</b>
<b>vi.</b>	<b>Recognise the role of individual veterinarians and statutory authorities in disease control programs, and participate across private and public sectors</b>



## Course Profile

### VETS5012 – VETERINARY PUBLIC HEALTH

#### 1. Course name: Veterinary Public health

**Course code:** VETS5012 (#203351)

**Coordinating Unit:** Faculty of Animal Science and Veterinary medicine

**Level:** Undergraduate

**Semester:** 9<sup>th</sup>

**Number of Units:** 6

- Lecture: 4

- Practice: 2

- Tutor: 1

- Other: none

#### 2. Course coordinator

Name: Le Thanh Hien

Email: [hien.lethanh@hcmuaf.edu.vn](mailto:hien.lethanh@hcmuaf.edu.vn)

#### 3. Pre-Requisites

Infectious Diseases I & II – VETS3010-1 and VETS3010-2

#### 4. Course description:

The course provides a basic understanding of zoonotic diseases and food security that can be built upon by both the practising clinical veterinarian and for those intending to develop a career in veterinary public health.

#### 5. Course aims

Students develop and apply their knowledge and skills in recognition and control of infectious diseases of animals in the context of human health protection and conservation medicine. Material focuses on veterinarians' roles in managing zoonotic diseases, food (specifically, foods of animal origin) safety, and production security.

#### 6. Learning Objectives

After successfully completing this course you should be able to:

- Update knowledge on and provide informed assessments of key current public health hazards and of emerging zoonotic diseases.
- Provide coherent and practical advice on protecting the production security, quality and safety of foods from “farm to table”, including assessment of livestock for suitability for human consumption.
- Provide up-to-date and relevant (to the veterinary profession) information and advice on the most significant food-borne diseases.
- Describe the scientific basis and use of modern tools (e.g. risk assessment, quality assurance, hazard analysis critical control point programs) in legislative control and certification of food, human health, and environmental protection.
- Professionally communicate concepts and information relating to veterinary public health in both written and oral forms and work effectively in a team to solve problems relating to VPH.

#### 7. Assessment

This is a summary of the assessment in the course

Assessment Task	Topics	Due Date	Weighting
Lab work			5%
Slaughter report			5%
Final Exam			
	<i>Zoonoses, Food safety; One Health</i>		70%
	<i>Food safety; Antibiotic resistance</i>		10%
	<i>Meat inspection</i>		5%
HACCP report			5%

#### 8. Course details

##### • Instructors

Instructor	Sections	Abbr.
A/prof Rowland Cobbold ( <a href="mailto:r.cobbold@uq.edu.au">r.cobbold@uq.edu.au</a> )	Zoonoses, Foodborne pathogen; Food safety; One Health	Rowland
Dr. Lê Thanh Hiên ( <a href="mailto:hien.lethanh@hcmuaf.edu.vn">hien.lethanh@hcmuaf.edu.vn</a> )	Meat inspection	Hien
Dr. Ho Thi Kim Hoa ( <a href="mailto:hoa.hothikim@hcmuaf.edu.vn">hoa.hothikim@hcmuaf.edu.vn</a> )	- Food safety; Antibiotic resistance	Hoa



• Lectures

	Lectures	Hours	Lecturer
1	<b>Introduction to Vet Public Health</b>		
	Interactions between humans, animals and the environment in relation to public health and environmental protection	3	A/Prof R. Cobbold
2	<b>Zoonoses</b>		
	2.1 Bacterial and fungal zoonoses	5	A/Prof R. Cobbold
	2.2 Parasitic, viral, and prion zoonoses	5	A/Prof R. Cobbold
	2.3 Modes of transmission	1	A/Prof R. Cobbold
	2.4 Control of zoonoses	1	A/Prof R. Cobbold
	2.5 Case studies and group discussion on priority zoonoses in Vietnam	1	A/Prof R. Cobbold
3	<b>Food safety</b>		
	3.1 Food residues (antimicrobials, feed additives, pesticides, etc.)	3	Hoa
	3.2 Food-borne pathogens and illness	1	A/Prof R. Cobbold
	3.3 Food-borne Disease Control	1	A/Prof R. Cobbold
	3.4 Case studies and group discussion on food-poisoning in Vietnam	1	A/Prof R. Cobbold
	3.5 Modern concepts in food protection (e.g. risk assessment, hazard analysis critical control point programs, GMP)	2	A/Prof R. Cobbold
	3.6 Regulations in food safety (world)	1	A/Prof R. Cobbold
	3.7 Veterinarians' contributions to national and global food safety and food security	1	A/Prof R. Cobbold
	3.8 Molecular typing methodologies for microbial source tracking and epidemiological investigations.	5	Hoa
4	<b>Meat inspection</b>		
	4.1 Inspection on farm.	1	Hien
	4.2 Transportation: appropriate animals, animal handling and loading, animal behavior, vehicles and sanitation.	1	Hien
	4.3 Inspection at slaughterhouses - abattoir location, facilities and hygiene; - animal handling, slaughtering and ethics; - distribution	3	Hien
	4.4 Ante-mortem inspection, post-mortem and carcass inspection (pathology).	5	Hien
5	<b>One health concepts</b> - One Health, ecosystem health, and global health approaches - The role of veterinarians in protecting public and ecosystems health.	2	A/Prof R. Cobbold
6	<b>Others</b> - Disinfection - Waste management	2	Hoa

Practical work

	Practical	Hours	Lecturer
1	HACCP-Dairy farm visit - Visiting a dairy farm with a task description - Working in group to develop a HACCP plan for the farm (Task description will be provided by teacher).	5	A/Prof R. Cobbold Hoa
2	Abattoir visits to a poultry and a pig abattoir - Observation of hygiene of processing line and meat inspection; and post-mortem inspection: performance of necropsies for disease diagnosis. - Writing reports	10	Hien
3	Laboratory examination of food microbiology Enumeration of bacteria in meat samples. - Total plate count. - Enumeration of coliforms and <i>Escherichia coli</i> in meat by 3M Petrifilm method and MPN methods. - Examination of <i>Staphylococcus aureus</i> and <i>Salmonella</i> spp. in meat. Each group of four work with samples that are either pork and beef mince, bought in a street market or a supermarket. The whole class will discuss the results of different samples.	15	Hoa
	<b>Tutoring (in Vietnamese)</b>		
	National and local legislation regarding food safety, public health and environment protection	5	People from HCMC Vet Office
	Review and preparation for the final examination	5	Hoa

9. Required and recommended resources

LEARNING RESOURCES

Required resources

- PDF versions of PowerPoint lecture notes will be sent to students before the course.
- Dairy farm HACCP exercise guide (including learning objectives, task description) will be provided before the field trip.
- Abattoir visit exercise guide (including learning objectives, task description) will be provided before the two visits.
- Lab microbial practical materials will be distributed before practical section.

Recommended resources

- Acha P. N. & Szyfres B. 2003. *Zoonoses and communicable diseases common to man and animals*, 3rd edn, Pan American Health Organization, Washington, DC.  
Vol. 1 (Bacterioses and Mycoses), Vol 2 (Chlamydioses, Rickettsioses and Viroses) and Vol 3 (Parasitoses).
- Sing A. 2015. *Zoonoses – Infections affecting humans and animals: Focus on public health aspects*. Springer.

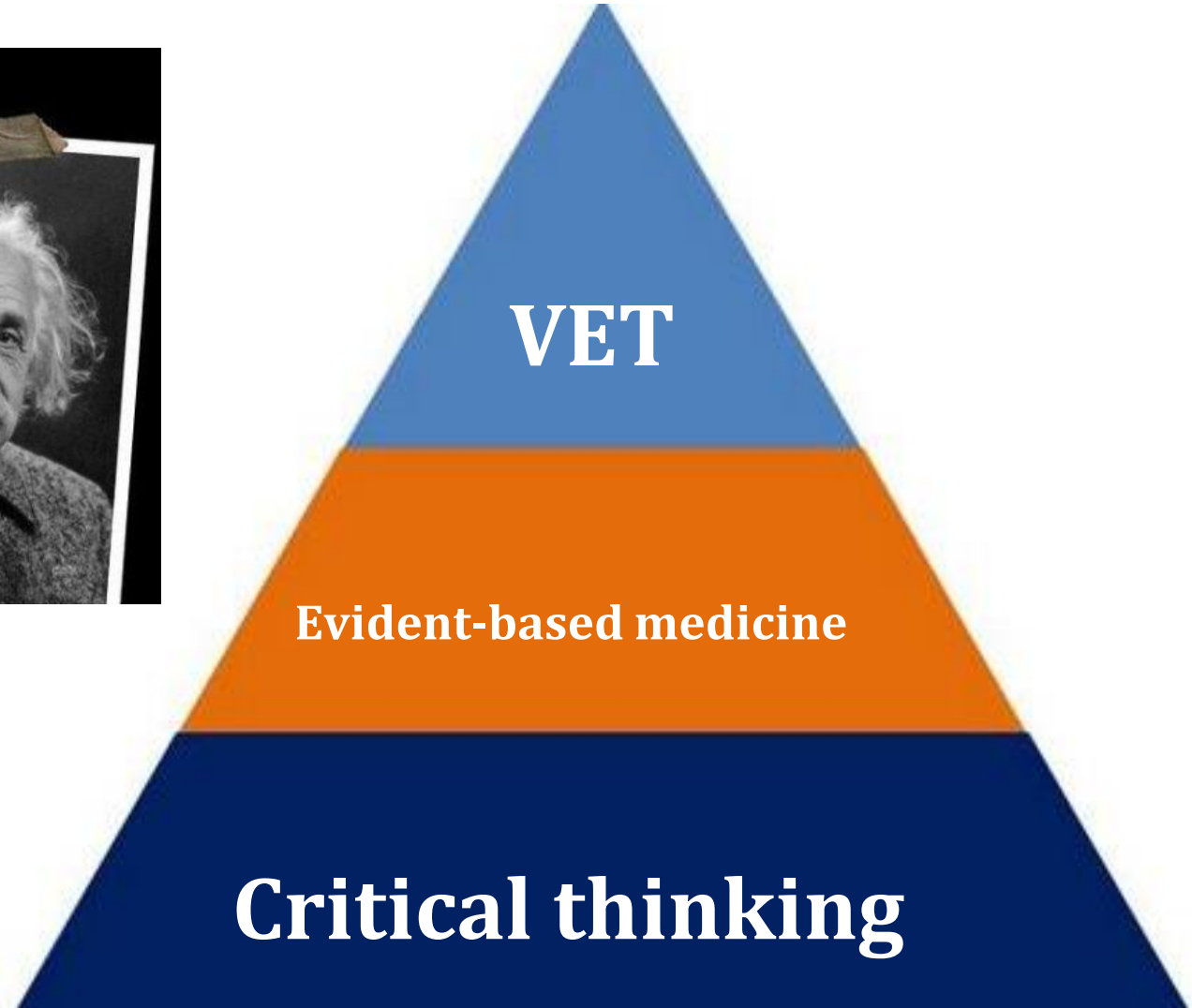
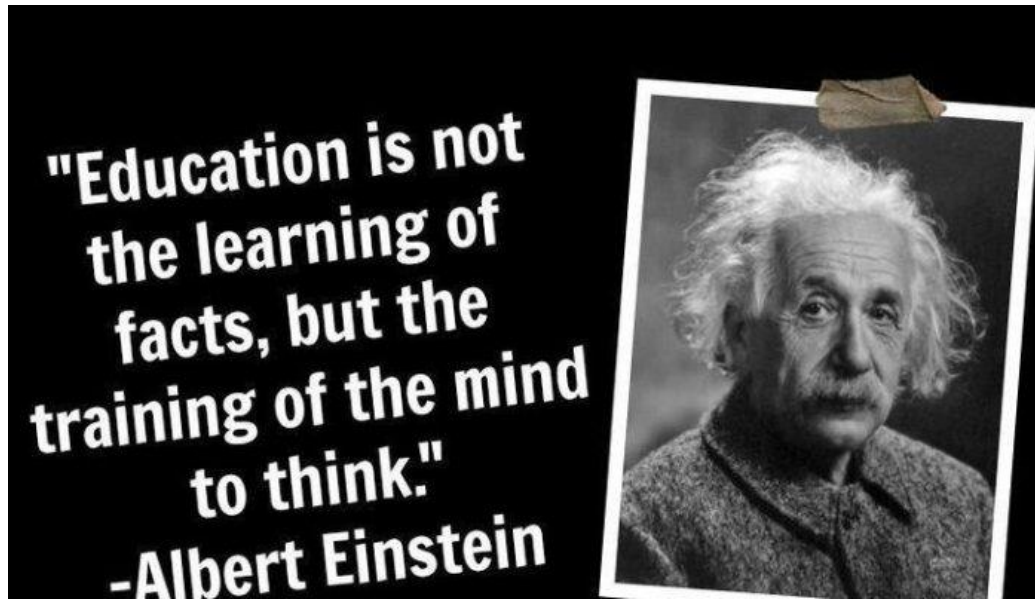




**DEVELOP OUTCOMES  
ASSESSMENT PROCESSES**



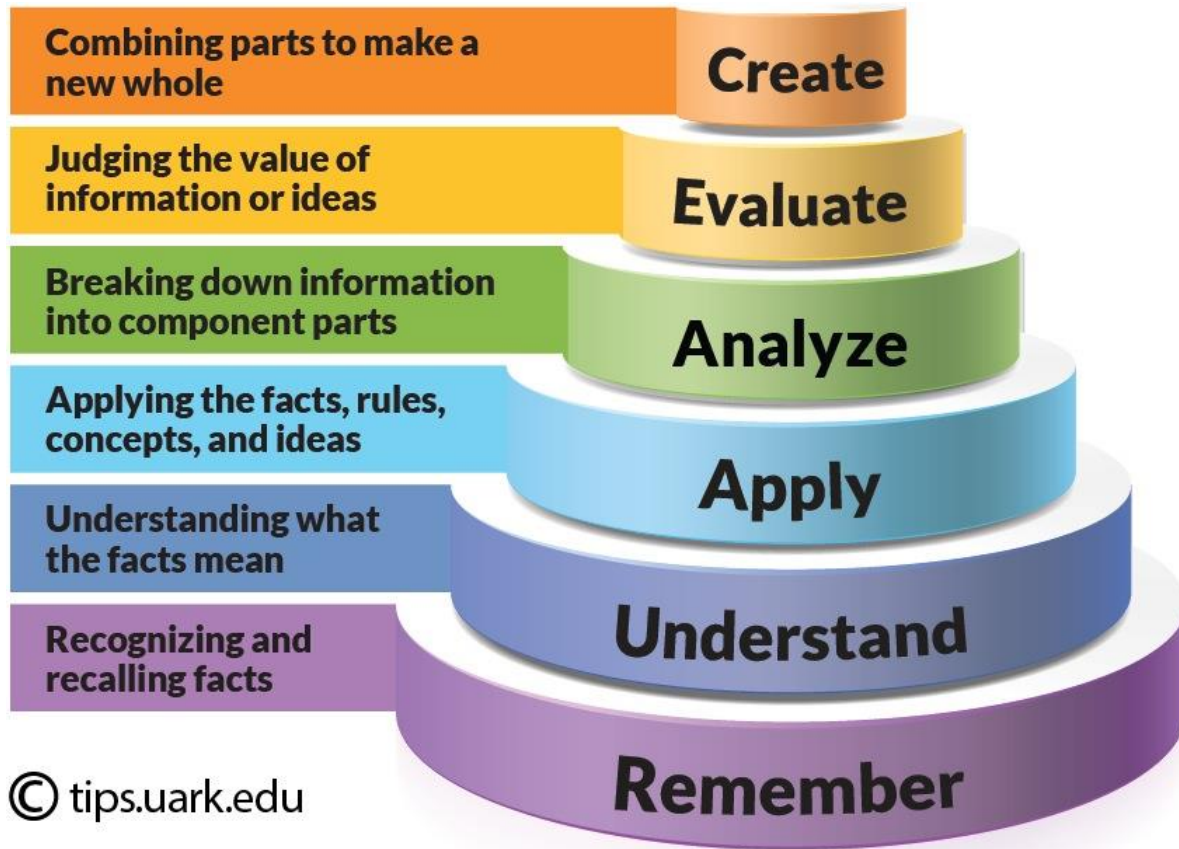
# Teaching and studying method





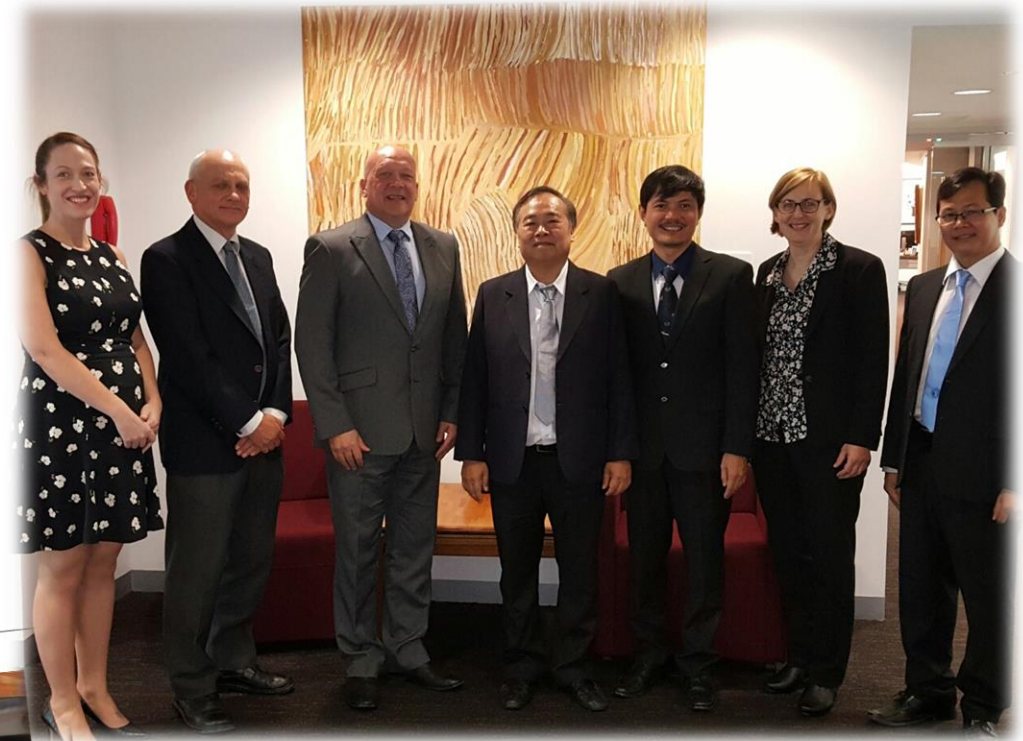
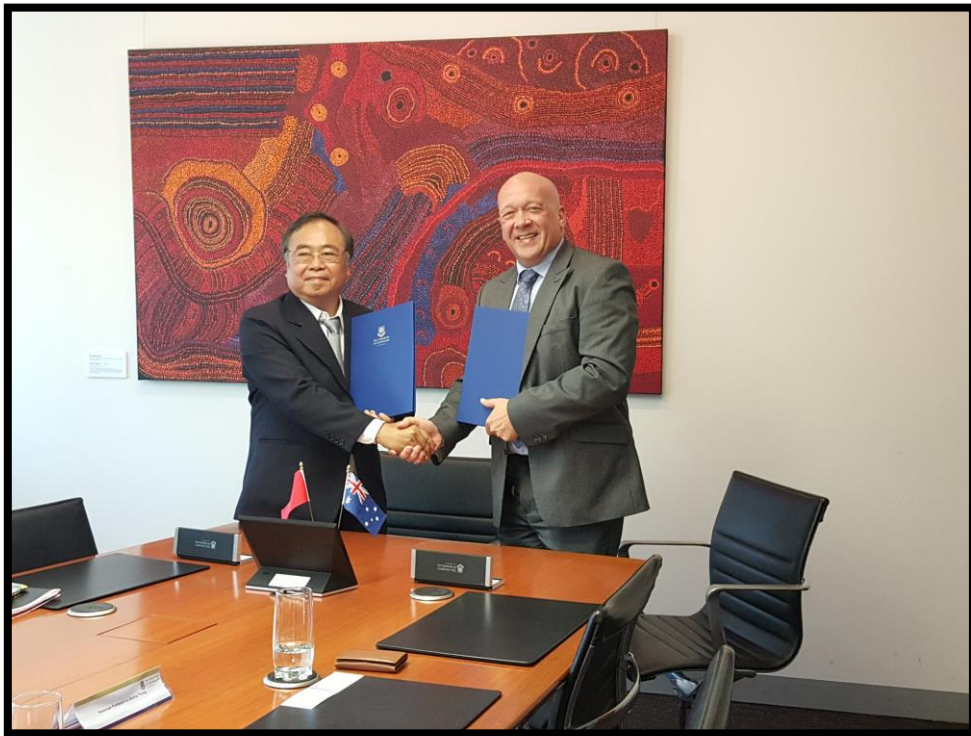
# Teaching - Assessment

## Bloom's Taxonomy



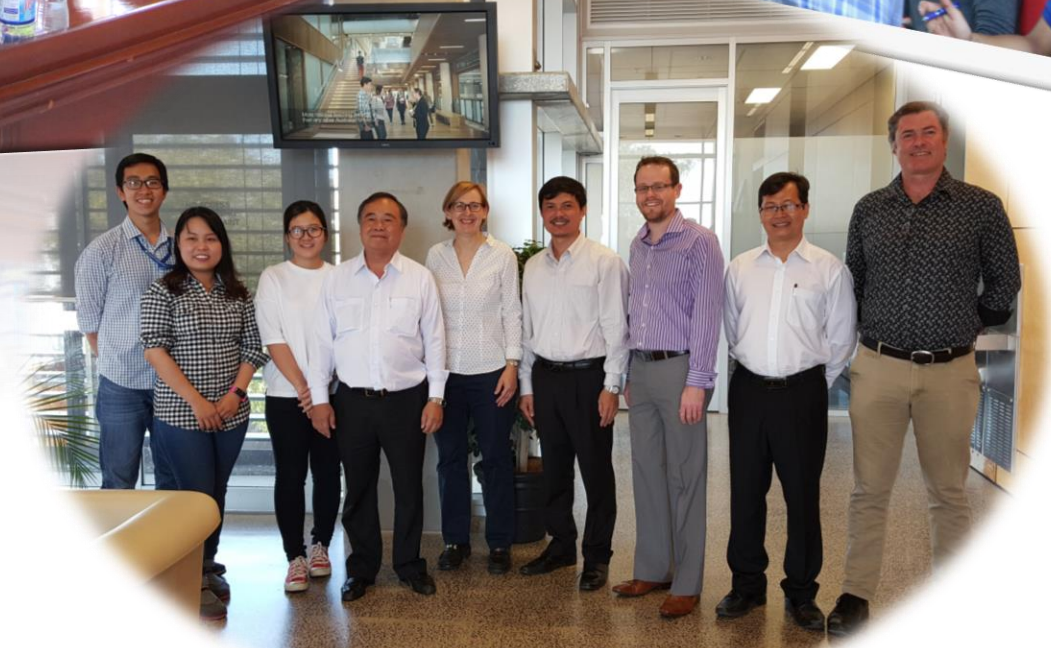
# CRITICAL THINKING SKILLS

<b>1</b> Knowledge Identification and recall of information	define fill in the blank list identify	label locate match memorize	name recall spell	state tell underline
<b>2</b> Comprehension Organization and selection of facts and ideas	convert describe explain	interpret paraphrase put in order	restate retell in your own words rewrite	summarize trace translate
<b>3</b> Application Use of facts, rules, and principles	apply compute conclude construct	demonstrate determine draw find out	give an example illustrate make operate	show solve state a rule or principle use
<b>4</b> Analysis Separating a whole into component parts	analyze categorize classify compare	contrast debate deduct determine the factors	diagram differentiate dissect distinguish	examine infer specify
<b>5</b> Synthesis Combining ideas to form a new whole	change combine compose construct create design	find an unusual way formulate generate invent originate plan	predict pretend produce rearrange reconstruct reorganize	revise suggest suppose visualize write
<b>6</b> Evaluation Developing opinions, judgements, or decisions	appraise choose compare conclude	decide defend evaluate give your opinion	judge justify prioritize rank	rate select support value



- ✓ **5 seminars of teaching methodology and evaluation**
- ✓ **6 students exchanges**
- ✓ **6 lectures training in UQ**







## Courseware Catalogue

Browse through rich, interactive, and adaptive courseware powered by real-time learning analytics. Teach lessons as is, or adapt it to suit your needs.

## Vision and Mission

The BEST Network is a not-for profit network of biomedical Schools developing and sharing next-generation courseware and technology. Our vision is that every educator and every student, wherever they are, will have access to the best biomedical education.

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Nguyễn Văn Chánh, Large animal production  
Trần Thanh Tiến, Biochemistry

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### THI THSHĐC HK II (2016-2017) - CHÍNH THỨC (22/5)

Welcome! You are about to start an assignment.

**THI THSHĐC HK II (2016-2017) - CHÍNH THỨC (22/5)**  
20 questions.

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There are 20 questions. Answer all questions before you submit.

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Name	Tags	Types	Modified
Actions	Câu 1	Choice Response	5/7/2017
Actions	Câu 2	Choice Response	5/7/2017
Actions	Câu 3	Choice Response	5/7/2017
Actions	Câu 4	Choice Response	5/7/2017
Actions	Câu 5	Choice Response	5/7/2017
Actions	Câu 6	Choice Response	5/7/2017
Actions	Câu 7	Choice Response	5/7/2017

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Filter By: Students OR Classes

### Active Students

Search:  [Student Actions](#)

Student Name	Student ID	Class	Notes	Status	Student Actions
Lâm Mỹ Anh	16116022	Sinh hóa đại cương HKII năm 2016-2017	Joined class Sinh hóa đại cương HKII năm 2016-2017 on Thu May 11 2017 (New Account Created)	active	<a href="#">Report</a>

Secure | https://www.edcite.com/apps/ReviewAssignment?assignid=tientran\_1495456123682

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### Review and Grade: THI THSHĐC HK II (2016-2017) - CHÍNH THỨC (22/5)

Class: All [+ Open All](#) [Summary Report](#)

[Print](#) [CSV](#) [Grading Tips](#)

[Grade by Student](#) [Grade by Question](#)

Showing 1 to 116 of 116 entries

	Student	Status	Assignment Score	Time Spent	Submitted
+	Thường Tử Văn (15116161)	Submitted	18	6 minutes	Mon May 22 2017
+	Bảo Huỳnh Ngọc (15117005)	Submitted	14	12 minutes	Mon May 22 2017
+	Nữp K' (13126422)	Submitted	10	12 minutes	Mon May 22 2017
+	Nguyễn Nhựt Duy Linh (16117028)	Submitted	18	16 minutes	Mon May 22 2017
+	Nguyễn Thị Thủy Hà (16117010)	Submitted	16	26 minutes	Mon May 22 2017

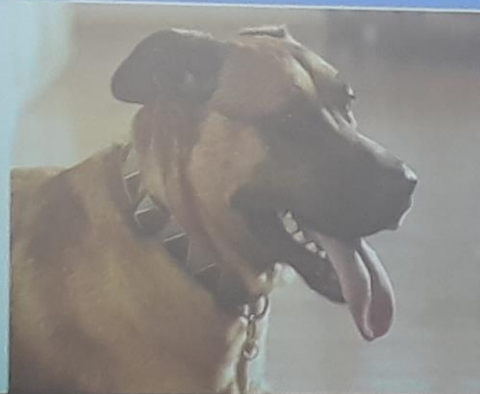


## STAFF VISIT TO UQ

### Group work - Presentation

- ✓ 1<sup>st</sup> year students are requested to prepare at the beginning of the course
- ✓ do group work during the semester
- ✓ perform the report at the end of the semester
- ✓ accounting for 15% of the mark

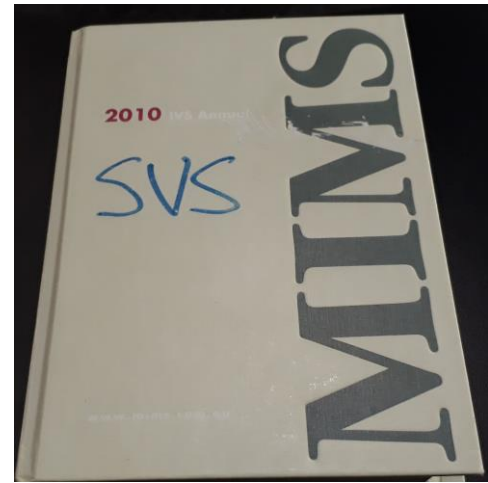
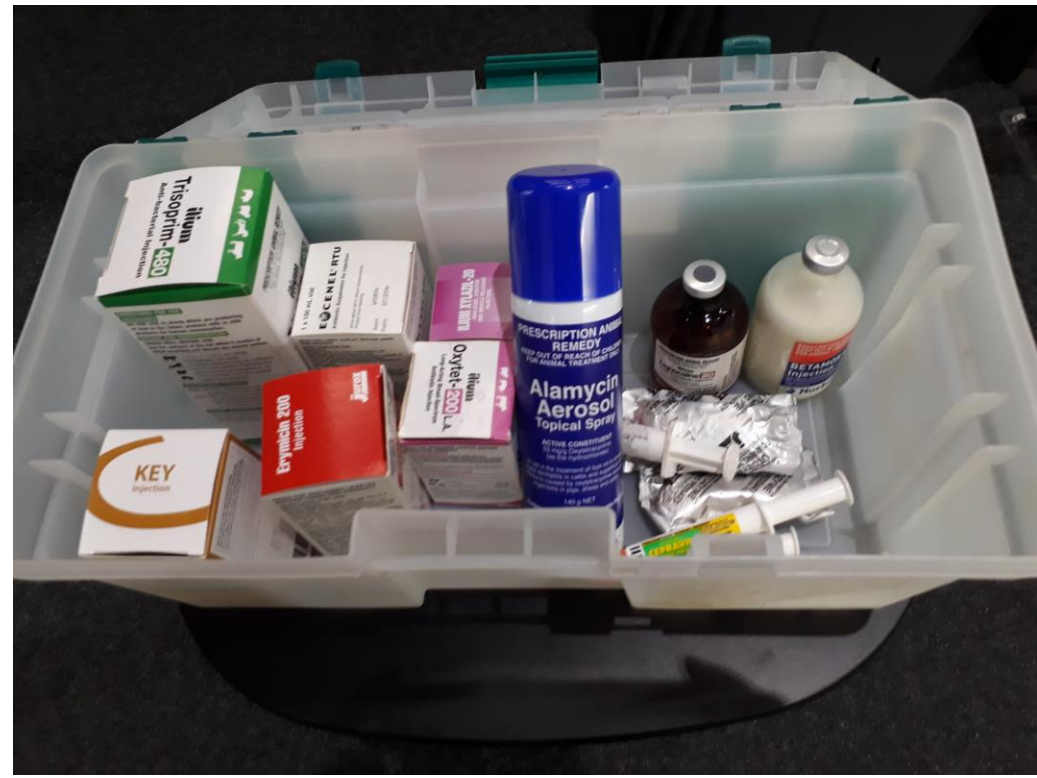
### Introduction to Separation Anxiety



Brandy - German Shepherd x  
Staffordshire Terrier



- ✓ Lecturers: pharmacology, bacteriology, practice
- ✓ Group of 3<sup>rd</sup> student (15): discuss, present
- ✓ Materials: lecture notes, drugs, book (IVS MIMS)
- ✓ Coaching – student centered learning





# DISSEMINATION RESULTS OF THE PROJECT



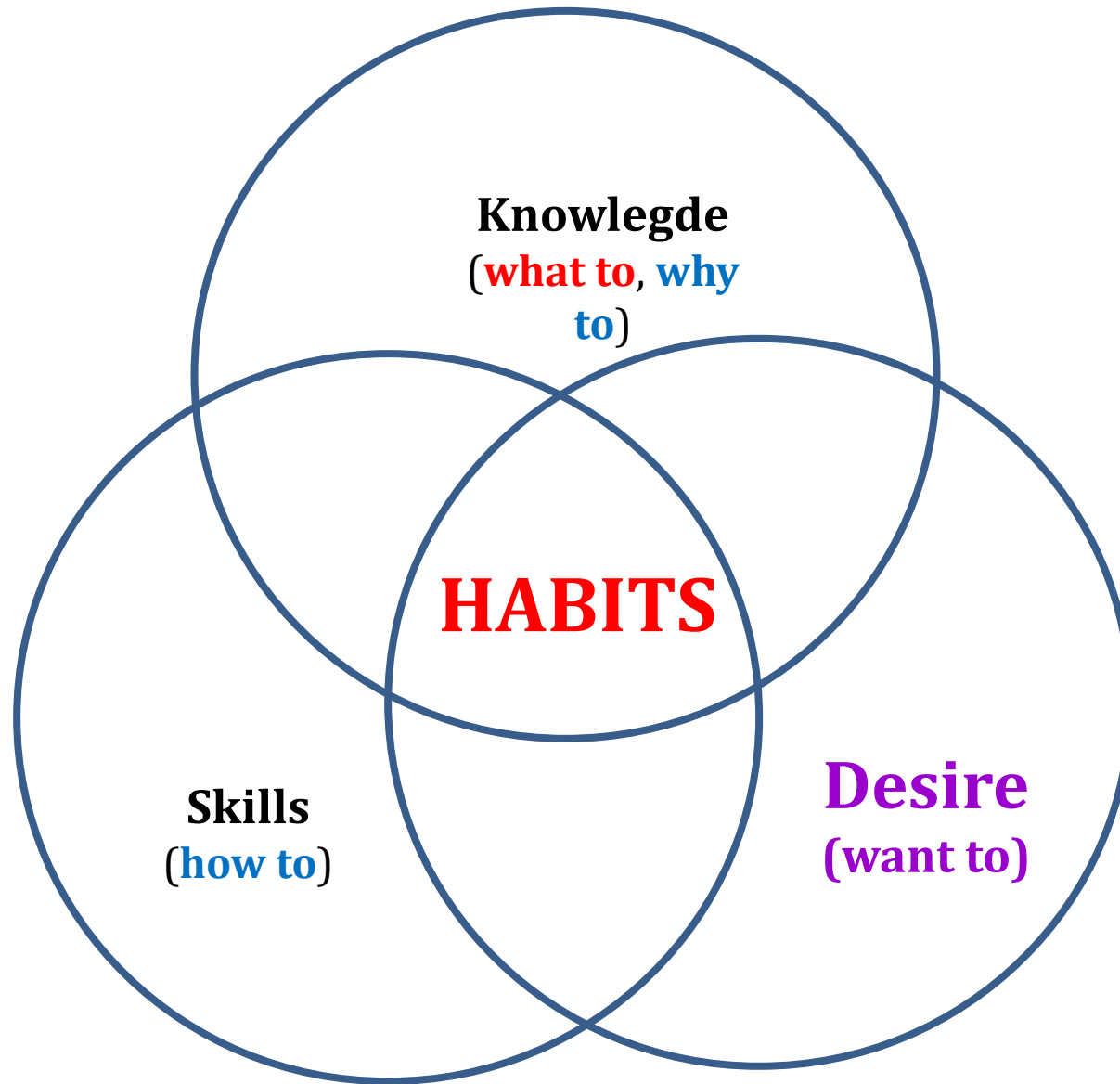


**Internal pedagogy workshop  
Long Hai 2016 and Quy Nhon  
2017**

**Faculty staffs**

**Vietnamese  
program in Vet  
Med**





**7 habits of highly effective  
people (Stephen Covey)**

*Thank you very much for your attention !*



*Faculty of Animal Science and Veterinary Medicine – NLU - HCMC*

