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**The Master (MSc) Courses at the Department of International Animal Health  
of the Freie Universität Berlin:  
Course set-up and curriculum structure of the Joint MSc Course in Veterinary Public  
Health (VPH) with the Chiang Mai University in Thailand**

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**Abstract**

*Course set-up and curriculum structure of the so far newest MSc Course in Veterinary Public Health (MSc VPH) of the Faculty of Veterinary Medicine of the Freie Universität Berlin (FUB) is described. With its partner, the Chiang Mai University (CMU) in Thailand, this “sandwich” MSc VPH Course, leading to a dual degree (“Joint MSc VPH of FUB and CMU”), is targeting the Southeast Asian Region. The modular study plan and structure at the respective locations in Europe and in Southeast Asia is outlined further. For the Faculty of Veterinary Medicine of FUB Berlin the MSc VPH Course is a substantial building stone in the establishment of the “International Graduate School in Veterinary Public Health (IGS VPH)”.*

**Background and Introduction**

The Faculty of Veterinary Medicine of the Freie Universität Berlin (FUB) has a history of more than 40 years in postgraduate training in tropical veterinary medicine. Since 1992 international postgraduate training offered in epidemiology and preventive veterinary medicine as well as in veterinary public health is leading to the academic degree of a Master of Science (MSc) in the respective speciality, e.g. in Tropical Veterinary Epidemiology (MSc TVE).

The Postgraduate Studies in International Animal Health are the executing institution for all international training programmes. To date, six international courses on (i) veterinary public health and food hygiene and (ii) epidemiology and preventive veterinary medicine have been conducted, for 74 young/mid-career veterinary graduates from 27 countries in Africa, Asia and South America.

As from 1996, the Department of International Animal Health began to successively implement a new Master Course concept. Three courses eventually will address modern areas of veterinary medicine (epidemiology, veterinary public health, food chain management), aim at specific target

regions and will be jointly executed with partner universities and veterinary institutions in the regions. A graphical presentation is provided in Fig. 1.

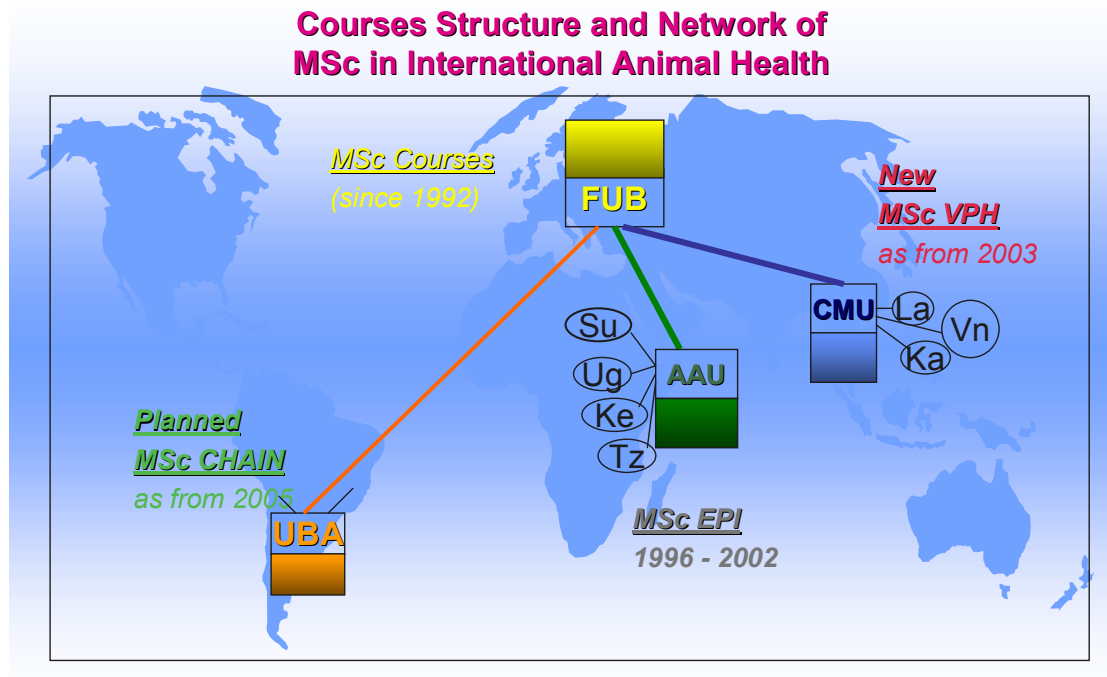


Fig. 1: MSc network structure of the Department of International Animal Health of the Freie Universität Berlin, 1992 – 2005 (planned)

### The Joint MSc Course in Veterinary Public Health (MSc VPH) 2003 - 2005

#### I Course Set-up

The so far newest MSc Course in Veterinary Public Health (MSc VPH) for the Southeast Asian Region is launched with the beginning of the Academic Year 2003/2004 by the Faculties of Veterinary Medicine of the partner universities Chiang Mai University (CMU) in Thailand and Freie Universität Berlin in Germany.

The University of Veterinary Medicine, Vienna / Austria (UVMV) with its Institute of Meat Hygiene, Meat Technology and Food Science is the third and junior partner within the EU ASIA LINK Programme which provides substantial financial co-funding for networking and curriculum development of this course up to 2005.

Scholarships for programme participants have been made available by the German Academic Exchange Service (DAAD) under its "Aufbaustudiengang-Programm" as well as by the Ministry of University Affairs, Thailand.

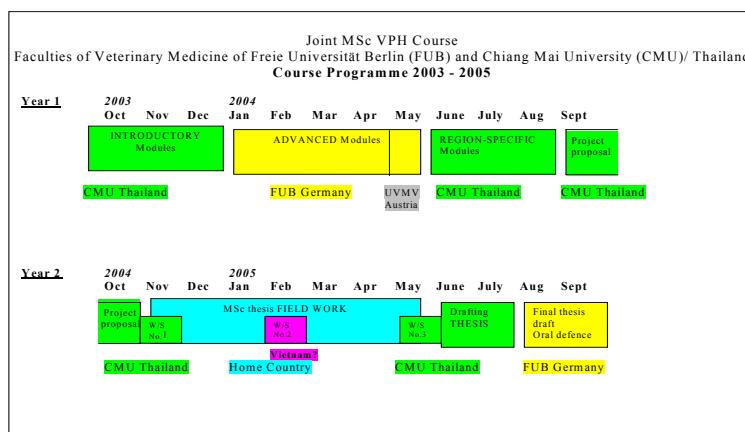
The Joint MSc VPH Programme is targeting young and mid-career veterinarians and other professionals (natural, agricultural, medical sciences) from the Southeast Asian region with a background in and training needs for zoonoses control and food safety.

The two-years „sandwich“-programme in English language, leading to a dual degree („Joint MSc VPH of FUB and CMU“), follows a modular structure by applying the European Credit Transfer

and Accumulation System (– ECTS –); its design as „classroom and research master“ is fully in line with the recommendations given by HRK (Association of Universities in Germany) and the German Accreditation Council. Table 1 provides the study plan indicating structure and venue of the respective “blocks” of modules, with Fig. 2 illustrating it further.

**Tab. 1:** Study programme for the Joint MSc Course in VPH indicating the modular structure

PROGRAMME MONTHS	MODULES	ECTS POINTS	VENUE	Additional inputs from
1-3 (Oct –Dec 03)	<b>Introductory modules</b>  5 Core Modules 2 Elective Modules	13 (11 + 2)	Chiang Mai University  (Total: 3 mth)	Thai institutions  FUB
4-8 (Jan – May 04)	<b>Advanced modules</b>  5 Core Modules 2 Elective Modules	30 (28 + 2)	Freie Universität Berlin  (Total: 5 mth)	UVMV  German and Austrian institutions
9-11 (June-Aug 04)	<b>Region specific modules / case studies</b>  4 Core Modules 2 Elective Modules  Examination A	17 (15 + 2)	Chiang Mai University & In-Region  (Total: 3mth)	UVMV FUB  In-Region Institutions
12-20  2 mth (Sept-Oct 04) 7 mth (Nov-May 05)	<b>Research Project:</b>  Project proposal  MSc thesis field work  <i>Workshop Modules</i> Study Design Data Analysis	10   10 10	Chiang Mai University & In-Region  (Total: 9 mth)	FUB UVMV  In-Region
21-22 (June-July 05)	<b>Drafting thesis</b>	30	Chiang Mai University ( for 2 mth)	FUB UVMV
23-24 (Aug-Sept 05)	<b>Final thesis draft Oral Defence</b>		Freie Universität Berlin ( for 2 mth)	CMU UVMV



**Fig. 2:** Course structure of the 1<sup>st</sup> Joint MSc Course in Veterinary Public Health of the Freie Universität Berlin and the Chiang Mai University / Thailand

## II Curriculum Structure

The MSc course uses a modular curriculum structure to allow for state-of-the-art teaching of a particular topic; modules are presented as a combination of classroom knowledge transfer (lectures, group work, seminars, PC labs) linked to practical laboratory experiences (bench work) within a defined and uninterrupted time period at a particular partner institution.

A listing of the modules offered in the MSc curriculum is displayed in Fig. 3 and 4.

Part A of the course starts at CMU with *Introductory Modules* for three months followed by *Advanced Modules* at FUB with *Laboratory Practicals* being carried out at UVMV. Further modules addressing regional specifics follow; the first study year will be completed with a draft of the MSc thesis study proposal.

<p><b>PART A: At partner university CMU:</b>  <i>Introductory modules</i>  <i>(13 ECTS credit points; 3 mths)</i>  <b>CORE MODULES</b>  <ul style="list-style-type: none"> <li>❖ <i>Concepts and Methods of Epidemiology</i></li> <li>❖ <i>Data Processing and Computing</i></li> <li>❖ <i>Intro. to Public Health &amp; Veterinary Public Health</i></li> <li>❖ <i>Sanitary and Phytosanitary Requirements</i></li> <li>❖ <i>Zoonoses</i></li> </ul> <b>ELECTIVE MODULES</b>  <ul style="list-style-type: none"> <li>• <i>Food Technology; Environmental Health; Special Residue Analysis Toxicology</i></li> </ul> </p>	<p><b>At FUB:</b>  <i>Advanced modules</i>  <i>(30 ECTS credit points; 5 mths)</i>  <b>CORE MODULES</b>  <ul style="list-style-type: none"> <li>❖ <i>Risk Analysis</i></li> <li>❖ <i>Laboratory Diagnosis</i></li> <li>❖ <i>Microbiological Food Safety</i></li> <li>❖ <i>Food Chain Approach</i></li> <li>❖ <i>Veterinary Public Health Systems Approach</i></li> <li>❖ <i>Laboratory practical</i></li> </ul> <b>ELECTIVE MODULES</b>  <ul style="list-style-type: none"> <li>• <i>Project Planning &amp; Management; Animal Health Economics</i></li> </ul> </p>
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Fig. 3 MSc VPH Course Outline I

<p><b>At partner university CMU and with Southeast Asian institutions in the region:</b>  <i>Region-specific modules / case studies</i>  <i>(17 ECTS credit point, 3 mths)</i>  <b>CORE MODULES</b>  <ul style="list-style-type: none"> <li>❖ <i>Research Methodology and Scientific Writing</i></li> <li>❖ <i>Disease Surveillance and Information Services</i></li> <li>❖ <i>Vet. Public Hlth Regul. Tasks</i></li> <li>❖ <i>Vet. Public Hlth Structure and Legislation</i></li> </ul> <b>ELECTIVE MODULES</b>  <ul style="list-style-type: none"> <li>• <i>Regulations, Rules and Requirements for Importing Food into the European Union; Regional Programmes for Veterinary Public Health</i></li> </ul> </p>	<p><b>PART B</b>  <b>• (Master thesis; Total: 13 mth) in Southeast Asian region</b>  <i>Project work</i>  <i>(10 credit pts)</i>  <ul style="list-style-type: none"> <li>• <i>Study design workshop</i> <i>(10 credit pts)</i></li> <li>• <i>Data analysis workshop</i> <i>(10 credit pts)</i></li> </ul> <b>• Master Thesis and</b>  <b>• Oral Defense (30 credit points)</b> </p>
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Fig. 4 : MSc VPH Course Outline II

Part B emphasises the MSc thesis and comprises of preparatory project work, field investigations in the home country of the participant with accompanying workshops at CMU and in the region. With the completion of the written thesis and the oral defence at FU Berlin the MSc course is accomplished and the Joint MSc Degree is awarded.

## **Conclusions and Outlook**

The course concept of a “twinning” or “sandwich”-programme with the partner CMU under “North-South Collaboration” - - which is extended to “South-South-Collaboration by bundling training institutions in Thailand and the countries in the region under the leadership of CMU - - is expected to contribute significantly towards medium to long-term sustainability of this MSc Course in Veterinary Public Health.

Regional focus and orientation of this MSc training as well as its integrated applied research in the countries of origin of the participants further emphasise the specific role of food safety and consumer protection in Southeast Asia.

For the Faculty of Veterinary Medicine at FU Berlin the Master Courses are some of the major pillars in the establishment of the “International Graduate School in Veterinary Public Health (IGS VPH)”; the expansion from the MSc level to a led PhD programme under the Graduate School programme is expected to be achieved latest by 2007, with first graduation in 2010.

For further information please see <http://city.vetmed.fu-berlin.de>