

Faculty of Veterinary Medicine
University of Parma
Report January 01st, 2011 – October 31st, 2011

In January 2011 the EAEVE Team visited the Faculty of Veterinary Medicine of the University of Parma, and in April 2011 our Faculty was conditionally approved by the ECOVE Board with one category 1 deficiency (Lack of long term clinical teaching activity).

The following document was prepared based on the observations included in the EAEVE final report and illustrates the current status of this major deficiency, all corrective measures taken since January 2011 and future strategies for continuing the process, in order that the Faculty be ready for re-evaluation in May-June 2012.

It should be noted that the number of students enrolled in the degree course has remained constant and that sixty-four students graduated during the period January 1st – October 31st 2011.

The present document is divided into two parts, concerning firstly the Category 1 Deficiency and secondly several other minor, but important, points raised by the Team that the Faculty has addressed.

There are three annexes to the document, “Equine Rotation”, “Neonatology and Calf healthcare” and “Standard Operating Procedures_LAI”. These annexes are cited in the text.

I. CATEGORY 1 DEFICIENCY: CURRENT STATUS OCTOBER 31st, 2011

Page 35 of the Final Report by the EAEVE Commission states:

*...All elements are present for clinical teaching and for delivering appropriate services according to guidelines and we commend the Faculty for effort and investments which have provided all required elements prior to the evaluation. However, some of those elements have been created or been instituted only very recently. Examples are: **the 24/7 Emergency Service and Intensive Care Unit for companion animals, the Mobile Clinic, the Small Animal Hospitalisation service, the Large Animal Isolation Unit, teaching in Equine Surgery and medicine with the aid of contract professors and the re-built Necropsy Facility.** Therefore, although premises, equipment and personnel are now fully functional, case numbers in the listed services are building up only since such a short period that at the time of the on-site visit, those numbers, although clearly on the rise, have still to be considered below acceptable levels. The team judges this as **one single major deficiency** although we have evidence, that within an acceptably short period of time the numbers will fulfill requirements in the listed areas; the very recent addition of the contract professors is an additional strong indicator for swift normalisation of the present situation. We therefore suggest awarding “conditional approval” to the Faculty of the University of Parma, with the expectation that case numbers within the listed services will reach expected levels within a reasonable period of time.”*

This was then confirmed by the ECOVE, who granted “conditional approval” to the Faculty.

Final Report, p. 39

Cat. 1 def confirmed by ECOVE: Lack of established long-term clinical teaching activity and related lack of case load as result of the very recent outsourcing of teaching activity and the very recent installation of emergency service, hospitalisation service and ambulatory clinic.

Below is a point-by-point description of the current status and future strategy for these services.

- **24/7 Emergency Service and Intensive Care Unit for companion animals**

The 24/7 emergency service and intensive care unit for companion animals has been fully operative since January 2011. The service was closed for 1 week (7th-13th August, 2011) due to the obligatory closure of all University facilities, imposed by the Rector. Personnel for the service included 11 permanent staff from Internal Medicine, Surgery, Obstetrics and Animal Reproduction and Diagnostic Imaging and 10 contract professors, of which 2 exclusively for surgical emergencies. The service is divided into 2 shifts (day shift/night shift). During night shifts and weekends, 1 contract professor and two students involved in Professional Training “Tirocinio” are present and 1 permanent clinical staff member for each discipline is on call.

During the day shift, from 08.00 to 20.00, 1 clinician works exclusively in emergency admittance and 1 in intensive care, assisted by at least 4 students involved in Professional Training “Tirocinio”. During the night shift, 1 clinician is responsible for both services, with the assistance of two students. From Monday to Friday, the day shift activity also includes specialist visits by permanent staff clinicians and students involved in Professional Training “Tirocinio”, who are divided up into groups of sixteen that are then divided into the 4 clinical rotations mentioned above.

Clinicians on contract cost approximately 78,000 Euro for a nine-month period. Funds come from the hospital earnings, Departmental funds and University financing.

In order to maintain/increase case load, the 24/7 emergency service and intensive care unit has been publicized on the Home page of the University and Departmental websites, through the distribution of brochures to all clients and through the local media. The Faculty has also organized informational tours to local high schools.

The Faculty is currently under negotiations with the municipal shelter for stipulating a long-term service contract for emergency services. Other contracts are still active, including specialist visits for municipal shelters (supported by funds from the Emilia-Romagna Region) and sterilization/neutering of stray cats (supported by funds from the Municipality of Parma).

Table 1. Case Load Emergency 24/7

	Number of patients - Emergency 24/7 Jan. 1st – Oct. 28th, 2011	Number of patients - Emergency 24/7 Nov. 1st – Dec. 31 st , 2010*
DOGS	125	7
CATS	48	2
HORSES	2	0

* SER page 216 “A 24-hr emergency service has been activated, beginning November 2010” . Data were not included in the SER because it was printed and sent to EAVE Secretary six weeks before the visit scheduled for 17th -21st, January 2011. The case load was taken from the VTH clinical records.

Each student involved in the 24/7 Emergency Service and Intensive Care Unit for companion animals actively participates in case management, from the initial clinical evaluation and admittance, the entire diagnostic process and therapeutic regime, all under the supervision and guidance of the head clinician on duty.

- **Small animal hospitalization service**

The activity of the Small animal hospitalisation service is structured in the same way as the Emergency service, including the exposure of each student to the cases handled. Indeed, the two services are parallel and complementary.

Table 2. Case Load SA Hospitalisation

	Case load – consultations		Number of patients – Hospitalized	
	Jan. 1 st - Oct. 28 th , 2011	2010 SER page 215	Jan. 1 st - Oct. 28 th , 2011	2010 SER page 215
DOGS	5071	1977	176	68
CATS	1178	599	261	4

The initiatives aimed at increasing case load are the same as those described above for the 24/7 emergency service, including the on-going contracts with the municipal shelter and the Emilia-Romagna region.

- **Mobile clinic**

Students are taken to farms with the Faculty Mobile Clinic accompanied by Faculty Teaching Staff in different disciplines. Contact Professors (CPs) use their own vehicles to transport small groups, or more often, individual students, for practical teaching.

Students are equipped with personal protection devices. Farm visits are carried out in collaboration with farm veterinarians and farmers. Activity is recorded both in the teachers' register and in the student's log book. Further registers are kept which records all teaching activity carried out with the CPs. These registers are held in the Dean's office.

Mobile clinic activities are reserved for the students in "Tirocinio".

Table 3 reports case load numbers for Mobile Clinic and external teaching activity with CPs for the period 1st January – 31st October, 2011.

During the period Jan. 1st, 2011-Oct. 31st, 2011 (40 weeks), the Faculty Mobile Clinic was active for 28 weeks and 22 swine farms and 8 cattle farms were visited. Each visit involved at least 4 students.

Bovine herd health management.

During the above period, 1080 cattle were visited individually and each student was responsible for at least one of these actions:

- general physical examination
- blood sampling
- milk sampling
- rectal examination and faecal collection
- hoof examination and treatment.

Observed pathologies and diseases were discussed and preventive measures proposed.

Swine Herd health management

Activities on swine farms were carried out on 1600 individual animals. Students carried out at least one of the activities listed below:

- single animal and herd examinations
- blood and faecal sampling
- intramuscular injections
- vaccinations.

When necessary, necropsies were also carried out on the farms.

Observed pathologies and diseases were discussed and preventive measures proposed.

During this period, each student handled approximately 25 pigs.

Teachers from Animal Production also took the students in "Tirocinio" to pig farms to carry out ultrasound diagnosis of pregnancy for a total amount of 800 sows. Each student diagnosed approximately 12-13 sows.

Bovine Obstetrics.

Teachers took the students in Tirocinio to several large, intensive dairy farms for practical teaching. Under the teachers' supervision, each student performed a complete gynaecological and ultrasound examination on his/her own. Students had to diagnose pathological states and propose specific treatment. The case load for practical activity in bovine obstetrics was 1266 animals examined during the period January-October, 2011 and each student handled no less than 50 clinical cases. Records of all these cases are on register in the electronic database of the Teaching Hospital.

Table 3. Number of cases seen by the mobile clinics in 2011 compared with those in the past three years

Species	Number of cases			
	2011	2010	2009	2008
Bovine	6741	960*	158	1063
Equine	633	84*	8	8
Swine	2400	258*	0	0

* data from SER tables 7.4a and 7.4b, page 217-218.

Wildlife management.

During the period of "Tirocinio" in Animal Production, students were taken to a nearby Regional Park to conduct census of wild ungulate populations and to learn and apply the principles of wildlife conservation and National Park management.

All the activities described above will continue throughout the academic year 2011-2012 and in the future; contracts with all the CPs have been renewed to support the teaching in Mobile Clinic.

- **Large animal isolation unit**

All activities carried out in the Large Animal Isolation unit follow Standard Operating Procedures, which were already in place during the previous visit (see Annex 1). Since the facility has been operative, animals of different species have been isolated due to suspicion of an infective disease state, due to the presence of diarrhoea, respiratory signs or neurological symptoms. Students must follow the guidelines laid out in the SOPS, under the supervision of the teacher, usually a member of permanent or junior staff from the Teaching Hospital. Students carry out clinical examinations, take samples and follow diagnostic procedures in the laboratory.

Table 4. Case Load LAI

Species	Animals recovered/total days* Large Animal Isolation Jan. 1 st – Oct. 28 th , 2011**
Equine	2/21
Bovine	7/385
Swine	10/430

* total days refer to the number of animals recovered multiplied by the days

**The Case Load for 2010 is not available because LAI activity started on Jan 1st , 2011

Students must assist animals in the LAI unit. Along with providing specific therapy (sub-cutaneous, intramuscular, intravenous injections), they are also responsible for administering supportive care (fluidio-therapy, oral re-hydration, artificial milk for calves, etc.) 2-3 times daily. To improve the numbers of LAI clinical cases (Table 4) the VTH is proposing agreements with cattle farms in the territory for the hospitalisation-isolation of calves affected by infectious diseases of the respiratory and gastro-intestinal apparatuses. Farmers can request pick-up of sick calves with the Faculty Van at no charge. Each animal is admitted to the LAI unit and clinical records for the different clinical disciplines are opened (Internal Medicine, Animal Reproduction, Surgery, Radiology, Pathological Anatomy, Parasitology, Animal Husbandry, etc). Once diagnosis has been made, animals are moved to stalls and managed accordingly. Animals are discharged and taken back to the farm.

The scope of this service, which is economically advantageous for farmers, is to allow students to manage clinical problems in bovine neo-natology and to obtain day-1 skills in large animal emergency medicine and management of large animal isolation.

The activities and procedures that students must follow are described in the annex “Neonatology and Calf healthcare”.

- **Teaching equine surgery and medicine**

- **Case load and teaching activity in Equine Medicine and Surgery.**

The case load, during the period January 1st - October 31st 2011, concerning the horses admitted to the University of Parma VTH is reported in table 5.

Table 5. Case Load Equine Surgery and Medicine

	Clinical cases		Surgical cases	
	January 1 st - October 31 st , 2011	2010*	January 1 st - October 31 st 2011	2010*
Equine	245	135	96	40

*these numbers are different than those reported in the SER for 2010, as they do not include equine Obstetrics and Animal Reproduction.

As reported previously, there are also 2 stallions and 5 mares permanently housed at the Faculty for teaching purposes, including activity in Anatomy, Physiology and for allowing students to carry out non-invasive clinical procedures.

In order to increase case load and hands-on experience in Equine Medicine and Surgery, the faculty has stipulated a contract with the nearby slaughterhouse to carry out practical teaching activity on horses destined for slaughter and that are temporarily housed in the abattoir's stalls. A new chute has recently been acquired by the Faculty to allow students to carry out basic clinical examination in safety. Practical activity on these horses is carried out by students of 3rd, 4th and those involved in “Tirocinio” and include several disciplines, in order to guarantee a multi-disciplinary approach (Internal Medicine, Surgery, Radiology, Obstetrics and Animal

Reproduction, Parasitology, Infectious Diseases, Animal Production, Pathological Anatomy). The schedule of activities for the academic year 2011-12 is attached as Annex 2.

The Faculty has also reached an agreement with a large, private clinic for equine medicine and surgery located approximately 10 km from Parma (Equitecnica E.C.S.N.C., Noceto, Parma. Head Clinician Dr. Sergio Orsi).

Activity in this clinic is limited to the students involved in “Tirocinio” who have to spend 1 week at the clinic and carry out practical training under the supervision of Faculty teachers and their own clinic’s practitioners. Planned training includes arthroscopy, orthopaedic diagnostics and surgery, castrations, soft tissue surgery, equine sport medicine and management of colic. Students are directly involved in various rehabilitation activities and in post-op care. It is foreseen that approximately 600 horses/year will be admitted to the clinic.

- **Necropsy**

During 2011, thanks to the newly renovated necropsy room, the number of necropsies carried out on both small and large animals for teaching purposes has generally increased (see Table 6). Indeed, the presence of an electric hoisting device that allows quick and safe transfer and positioning of large animals onto a self-propelled electric necropsy table, has allowed us to carry out more necropsies on adult cattle and horses.

3rd year students (during Path Anatomy I and II), students in “Tirocinio” and students who have chosen the elective subject “Internal Medicine and Surgery, have all been able to perform directly, under teacher supervision, the necropsy of :

- dogs and cats (usually from the VTH or the municipal shelter; euthanized or deceased due to non zoonotic pathologies)
- calves/cattle
- pigs
- horses

Students must operate themselves the necropsies, record gross pathology and formulate a diagnosis. Students must compile an autopsy report.

There is also a video recording system that allows the teachers to project the autopsy in real time in order to guide the students in their activity and to show necroscopic techniques in greater detail. These recordings can also be shown during theoretical classes, allowing further discussion of the case.

The facility also has four large stainless steel tables for examination of organs from large animals (cattle, pig, horse), collected at the local slaughterhouses and for necropsy of companion animals.

New instruments include a suspended scale for weighing large animal cadavers, an electrical saw in steel for reducing larger biological samples and bone, a chain-saw, a cordless electrical oscillating saw for opening companion animal skulls, a microchip reader and a metal detector for the search for foreign objects. Cases of forensic medicine of animals shouted are also investigated by X-ray with the aim of determining the presence of bullets and hard tissue lesions.

A recent agreement has been reached with a local company which disposes of horse cadavers assuring the consignment of horse cadavers for practical teaching activity.

There is no question that the recent renovation of the facility and the addition of new instruments have improved the quality of practical teaching in this important discipline. Students are now able (and obliged) to complete a self-evaluation form at the end of each

practical, where he/she must indicate the gross lesions observed and to formulate a presumptive diagnosis

Table 6. Necropsy

NECROPSIES 2008-2011 (as of 31/10/2011)

SPECIES	2008	2009	2010	2011
DOG	55	66	26	50
CAT	14	22	17	62
PIG	57	45	44	71
HORSE	1	1	2	4
SHEEP	1	6	0	0
CATTLE	31	63	55	38
RABBIT	2	1	1	0
WILD BOAR	0	1	0	0
HARE	0	1	0	0
DEER	0	0	0	1
Total	161	206	145	226
POULTRY	103	153	151	191

CONDEMNED ORGANS* FROM SLAUGHTERHOUSE 2007-2011 (as of 31/10/2011)

SPECIES	2007 kgs.	2008 kgs.	2009 kgs.	2010 kgs	2011 kgs
PIG	1763,7	1425,0	1239,0	722,5	892,0
HORSE	1694,0	2210,0	1962,0	789,0	1516,0
CATTLE	2794,0	3369,5	1914,0	666,0	1160,5
	6251,7	7004,5	5115,0	2177,5	3568,5

* **Isolated organs from** livestock slaughtered animals (mostly heart, lung, thyroid, diaphragm, liver, spleen, kidney and adrenals, mammary gland, testes, uterus and ovary, equine legs while less fore stomach, stomach, intestine, pancreas, equine and swine brains.)

MINOR POINTS RAISED BY THE EAEVE COMMISSION

- **Organisation**

“The number of committees of the FMV seems excessive. We recommend to evaluating their well functioning and that their roles are well established with no ill defined limits of actions”

The faculty has decided to combine several committees in order to decrease their number and to re-define their aims and goals. It should be noted that the activity of a new Commission for the External Relations includes Internationalization and Relations with the local territory. Furthermore, the Commission for 1st year entrance examination for the degree course in Veterinary Medicine includes the Commission for Italian language for foreign students that will be established annually before 1st year entrance examination starts.

Table 7. Previous and current faculty committees.

Previous Commissions (SER 2010)	Current Commissions (2011)
The Faculty Committee	The Faculty Committee
The Committee for the preparation of EAEVE visit	The Committee for the preparation of EAEVE visit
The ERASMUS-SOCRATES Commission (LLP/ERASMUS programs)	The ERASMUS-SOCRATES Commission (LLP/ERASMUS programs)
The Postgraduate Education Commission	The Postgraduate Education Commission
The Continuing Education Commission	The Continuing Education Commission
The Commission of Internationalization	The Commission for the External Relations
The Commission for the Relations with the local territory	The Tutorage Commission
The Tutorage Commission	The professional training “TIROCINIO” Commission
The professional training “TIROCINIO” Commission	The Commission for the evaluation of facilities for extramural activity
The Commission for the evaluation of facilities for extramural activity	The Commission for 1 st year entrance examination for the degree course in Veterinary Medicine
The Commission for 1 st year entrance examination for the degree course in Veterinary Medicine	The Commission for Student’s Career
The Commission for Italian language for foreign students	
The Commission for Student’s Career (1 st year)	
The Commission for Student’s Career (2 nd -5 th year)	

“The group of PhD’s and post-doc’s has no formal organization. Such organized structure would be useful for better recognition of their rights and concerns.

The University Regulations do not foresee a formal organization for PhD’s and post-doc’s; however, there is a National Association of PhD’s. Furthermore, PhD’s representatives are present at Department level.

- **Basic Sciences**

“The theoretical load in some disciplines is very high. Examples of this are Pathology, including General Pathology and Anatomic Pathology with 216 hours of lectures. The introduction of some subjects such as cell culture pathology explains why the number of teaching hours is so high.”

In respect to the EAEVE Team’s suggestions, the Practical Activity in Pathology including the courses of General Pathology, Animal Physiopathology, Veterinary Immunopathology (2° year/2° sem.) and of Anatomical Pathology (3° YEAR) has been increased from 135 to 158 hours reaching a 45% of the total hours. The practicals on cell culture have been replaced by practical activity on physiopathology.

“Teaching staff of Basic Subjects and Sciences seems to be very motivated and well prepared. It was clear that all teachers make the best they can out of the teaching material of animal origin available, which, in some cases, referring to the standards of the approved schools in Europe, has been judged by the Team as still insufficient. As will be stated in more detail in chapter 7, cadavers for use in Anatomy and Anatomical Pathology are scarce, especially equine and companion animals”

The number of cadavers for practical teaching in Anatomy from January to October 2011 is confirmed as that reported in the SER. Teachers now organize practical teaching on live animals, including cattle and horses. Cadaver numbers for Anatomical Pathology are reported in Table 6.

- **Examination system**

Pt. 5.2.2., p. 21 “Seen from an international point of view, it is more than unusual that students can retake examinations for an unlimited number of times.”

The EAEVE Team evaluated negatively the fact that students are able to sit each examination an unlimited number of times. The Faculty thoroughly agrees with the Team’s observations. Indeed, on one hand the student becomes unmotivated and feels that he/she can continue procrastinating the moment of evaluation in a given subject; on the other hand, he/she deviates irreparably from the formal educational track which was ideally developed to guarantee a sequence of knowledge, competencies and study.

Even though the Ministry for University and Research (MIUR) is responsible for defining how examinations are organized, the U of Parma Veterinary faculty feels that the measures described below (**Admission and Enrolment**) can assist the student in facing final exams with the right motivation, preparation and tranquillity, immediately following the end of term.

- **Admission and enrolment**

Pt. 9.1, p.28 “In the year 2009/2010 the number of off-course students was 134 in a total of 455 (29,4%). Repeaters were 124 (27,3%). Altogether, repeaters and off-course represent 56% of the total of students enrolled.”

During the current academic year there has been a stabilisation of repeaters and off course students, with no ulterior rise in percentages.

Below, we report the measures taken and that will be taken to reduce these percentages.

The presence of repeaters and off-course students is due to several factors that the **Pedagogic/Educational Committee** has identified. The most important would appear to be the fact that many 1st year students are unable to pass the requisite number of exams necessary to progress to the second year of the degree course. This is likely due to the heavy study load that the student must prepare (i.e. the entire course curriculum) and for which he/she is evaluated during the exam session. In order to make the evaluation process less demanding for both students and teachers, several solutions have been proposed and/or activated, as follows.

1 – The majority of courses are divided into modules with a specific number of ECTS assigned to each. These are usually taught by different teachers. Thus, where there is a clear distinction between subject matter and an aim towards progressive knowledge, the examination is divided into individual sessions regarding the specific module. When the student passes a given module, his/her knowledge of this part of the course will not be re-evaluated, thus allowing the student to study in a gradual, more in depth manner.

2 – Several teachers have also decided to carry out evaluation during practicals. The individual student's performance during laboratory work is evaluated at the moment that practicals are carried out and these marks are then integrated into the final examination, thus lightening the study load for the final exam. For example, through the use of hand-outs that must be completed by the student at the end of the practical session, the teacher is able to evaluate the student's learning abilities and understanding of a particular skill.

3 – It has also been proposed that teachers activate supervised work during practical activity that can be evaluated and taken into consideration for the final examination. Students will be divided into groups and, under the teacher's supervision, will be asked to solve specific problems. The students' reactivity, degree of interest and problem-solving abilities will be evaluated and his/her performance will be noted for consideration at the final examination. In this way, like above, each student will be evaluated during the course and not only at the final exam.

4 – In order to better understand the reasons why many students do not progress with their studies, repeaters and off-course students will be asked to complete a questionnaire prepared by the **Pedagogic/Education Committee**. Questionnaires will be sent, anonymously, to the Committee that will then evaluate the students' replies and develop further strategies to combat and, hopefully, eradicate the problem.

- **Academic and support staff training**

Residencies in European Colleges

Pt. 10.3, p. 30. "Residency programmes should also be established and thereby further to increase the competence of the clinical services in VTH. This all would have a great impact on increasing the caseload, teaching and research activities.

There are currently 6 European diplomates at the U of Parma Veterinary faculty: 3 in Porcine Health Management (ECPHM, Prof.s Borghetti, Corradi, Martelli), 1 in Bovine Health Management (ECBHM, Prof. Cavirani) and 2 in Veterinary Parasitology (EVPC, Prof.s Grandi and Kramer).

There are currently 4 Standard Residents and 1 Alternative Resident in ECPHM. Prof. Kramer has applied to the EVPC Education Committee for approval of a Standard Residency Training Programme in Veterinary Parasitology, which however will only be approved upon EAEVE approval of the faculty.

There is currently 1 intern (Dr. Mavropoulou) who is carrying out an Alternative Training Programme in Veterinary Internal Medicine/CA (ECVIM/CA) under the supervision of ECVIM Diplomate Dr. Claudio Bussadori in Milan. Currently she is in residency program at the Faculty of Veterinary Medicine of the University of Cambridge (U.K.) under the supervision of prof. Michael Herrtage.

Two members of the junior staff in Animal Reproduction (Dott.ri Di Ianni e Bresciani) have begun alternative training programmes in Animal Reproduction at the University of Udine under the supervision of Prof. Giuseppe Stradaoli, diplomate of the European College of Animal Reproduction (ECAR).

There is currently 1 Research Assistant (Dr. Ezio Bianchi) who is carrying out an Alternative Training Programme in Veterinary Neurology (ECVN) under the supervision of ECVN Diplomate Prof. Gualtiero Gandini, at the University of Bologna.

In order to stimulate interest in Residency programmes, Prof. Martelli has organized a Symposium at the U of Parma Veterinary Faculty entitled “The Role of European Colleges in post-graduate education in Europe“ that will be held on November 30th, 2011.

Finally, it has been proposed that access to research grants, job contracts, etc. for the clinical sciences and the Teaching Hospital is limited to those candidates interested in pursuing a Residency Programme. This policy has been applied recently to a post-doctoral grant which has been assigned for a Residency programme in Veterinary Surgery/sub-specialty Equine Surgery, to be carried out under the supervision of European ECVS/ES diplomate.

Concerning Support Staff training, a further Continuing Education course has been organized on Bio-security and Biological Risk.

ANNEX 1

SCHEDULE FOR ROTATION IN EQUINE MEDICINE AND SURGERY AT THE PRE-SLAUGHTER STALLS AT THE MUNICIPAL SLAUGHTERHOUSE

DAY OF THE WEEK	TIME	N. OF HORSES	ACTIVITY	HEAD TEACHER (SUBSTITUTE)	TEACHER ON DUTY (SUBSTITUTE)	TECHNICIAN ON DUTY	STUDENTS ON DUTY	DATES	STUDENTS' NAME
MONDAY (arrival in stall)	14.00	4-6 HORSES	SELECTION OF HORSES, BASED ON BEHAVIOR AND PATHOLOGY	see daily schedule	see daily schedule	see daily schedule	5th year students clinical rotations		see daily schedule
TUESDAY	MORN	Transfer students/teachers to the slaughterhouse with PPDs and instruemnts for clinical examination, etc.	Identification of horses, general physical examination, evaluation of general conditions, vital signs, etc.				5th year students clinical rotations		
			admission to the VTH, registration clinical records						
			collection of nasal, clitoral and prepuzial swabs for microbiological tests						
			collection of feecal samples for parasitological evaluation						
	AFTER N								
DAY OF THE WEEK	TIME	N. OF HORSES	ACTIVITY	HEAD TEACHER (SUBSTITUTE)	TEACHER ON DUTY (SUBSTITUTE)	TECHNICIAN ON DUTY	STUDENTS ON DUTY	DATES	STUDENTS' NAME
WEDNESDAY	MORN		evaluation general conditions and vital signs	see daily schedule	see daily schedule	see daily schedule	5th year students in clinical and animal production rotations		see daily schedule
			surgery				5th year students clinical rotations		
			radiology				5th year students clinical rotations		
			evaluation BCS				5th year students animal production rotations		
	AFTER N		practicals obstetrics				4th year students/PhDs/ 5th year students clinical rotations		
THURSDAY	MORN 7,30-8,00		discharge of patients, closing of clinical records/compilation modello IV				5th year students clinical rotations		
			slaughter and necropsy				5th year students clinical rotations		

ANNEX 2

PROTOCOL CALF HEALTHCARE AND NEONATALOLOGY								
day of the week	number of animals		activity	staff member on duty	support staff member on duty	assistants	date (from...to...)	name of student on duty
day 1	variable		Transport from farm to OVUD	see daily schedule	see daily schedule	5th year student		
			Admittance to OVUD, recovery in LAI unit - opening clinical records			5th year student		
			general physical examination, specialist visits in Infectious Diseases, Surgery and Parasitology			5th year student, students		
			radiology			5th year student, students		
day 1			clinical examination/vital signs, etc			5th year student, students		
			therapy			5th year student, students		
following days	DURING RECOVERY, ALL ACTIVITIES REGARDING MONITORING AND CONTROL OF ANIMALS WILL BE REPEATED							
in case of death			Transport of cadavers to Path Anatomy			5th year student, students		
			carcass disposal			5th year student, students		
			completion of clinical records					

ANNEX 3

Standard Operating Procedures (LAI)

For Students

LARGE ANIMAL ISOLATION– PROTOCOLS

1. Do not wear the same shoes or coveralls used in the main Animal hospital!
2. To enter stall: you need Isolation overboots, Isolation coveralls, 2 pairs of gloves - USE ALL FOOTBATHS.
3. Thermometer and stethoscope are stored in the anteroom. Clean them with Disinfectant after use. Be sure thermometer is clean before replacing in holder.
4. All persons working in the area are responsible for maintaining the cleanliness of the facility. AVOID CONTAMINATING the ANTEROOM with straw/manure. Change footbaths regularly.
5. Students are responsible for feeding patients in Isolation.
6. Students are responsible for maintaining the cleanliness of the anteroom: clean counter & doorknob, change footbaths twice daily & when needed.
7. Uncontaminated waste (fluid boxes etc) can be disposed of in the garbage can in the Isolation ante room.
8. Food Animal Isolation is cleaned daily by the barn staff at the end of the work day. Staff should dress according the protocols already listed. If the animal is suffering from a level 3 pathogen all waste material must be placed in biohazard bins and disposed of as biological waste. All other waste must be removed for composting.
9. Do not bring equipment from the main hospital unless necessary. Check with the Food Animal staff for items that may be needed. Leave items in the anteroom - do not bring them back into the barn.
10. Do NOT return medications/fluids from Isolation to the Pharmacy.
11. How to use Disinfectant
 - Use all times in Isolation for routine disinfection
 - Footbaths, use Disinfectant—change footbaths at least twice daily and when needed!
12. Samples for Clin Pathology should be correctly labelled with case #, client name, date, (& time of collection for fecal samples), then placed in a ziplock bag and marked with a red dot.
13. Food and beverages are absolutely prohibited as is chewing gum.
14. When leaving Isolation:
 - Remove outer pair of gloves prior to leaving stall

- Scrub rubber boots in footbath
- Remove boots
- Remove Isolation coveralls
- Remove 2nd pair of gloves
- WASH HANDS Before leaving the Isolation facility
- Dip footwear in footbath prior to leaving the Isolation area

15. Procedure for preparing Isolation for a patient:

- Bed stall (use 1 cart of shavings unless otherwise specified: Isolation boots, coveralls, and gloves are required)
- Fill water tub
- Feed if appropriate
- Make sure anteroom is stocked
- Set up footbath with Disinfectant
- A sign should be placed on the door documenting the presumptive diagnosis.
- When ever possible, animals should be unloaded directly from the isolation stall.
- Animals may not enter the main clinic or chute complex.

BOVINE ISOLATION PROCEDURES

- I.** No bovine should be unloaded without first having been admitted at reception. The calf should be unloaded in the chute complex directly onto a calf cart. If there is any suspicion whatsoever regarding enteritis the calf should be moved to the bovine ward. The cart and any areas contaminated during transport must be washed and disinfected
- II.** In addition to normal attire, anyone working in the bovine ward must wear a disposable barrier gown, two pairs of gloves and plastic over boots. No equipment may be brought into the ward and no equipment may leave including patient records and pens.
- III.** Eating (including chewing gum) is expressly forbidden. In addition, do not put anything in your mouth while in the bovine Ward.
- IV.** When you leave the scours ward, remove one pair of gloves and the gown. Then remove the over boots and dispose of the gloves. Finally, thoroughly wash your hands at the foot operated sink.
- V.** Each bovine is assigned its own stall. If possible, avoid placing calves from different source farms in adjacent stalls. Each calf is assigned a milk bottle and nipple on arrival in the ward. They should be labelled with a “white tape” marker
- VI.** Use only thermometers and stethoscopes from the calf scours ward. Equipment should be washed and sprayed with Disinfectant after use.
- VII.** Full garbage bags from the scours ward should be placed in a clean “Biohazard bag” and disposed of appropriately. Any equipment to be returned to central supply should be washed, sprayed with Disinfectant and placed in a “Biohazard bag”.
- VIII.** Do not reach for anything clean (syringe boxes, cupboards, etc.) with dirty hands or gloves. Try to have everything ready prior to a procedure; or remove dirty gloves, get items needed and put on a new pair of gloves.
- IX.** Wash hands before, after, and between animals and before leaving the room (avoid spreading contamination!).
- X.** If you should develop diarrhea while working in the scours ward, immediately contact the

senior clinician and let them know what has occurred. If you are significantly ill, contact your own G.P. and inform them that you may have been exposed to either *Salmonella spp.* or *Cryptosporidium spp.* If they have additional questions, put them in contact with the senior clinician.